PIC18 CONFIGURATION SETTINGS ADDENDUM

Note the following details of the code protection feature on Microchip devices:

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as "unbreakable."

Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our products. Attempts to break Microchip's code protection feature may be a violation of the Digital Millennium Copyright Act. If such acts allow unauthorized access to your software or other copyrighted work, you may have a right to sue for relief under that Act.

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Microchip received ISO/TS-16949:2002 quality system certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona and Mountain View, California in October 2003. The Company's quality system processes and procedures are for its PICmicro® 8-bit MCUs, KEELOQ® code hopping devices, Serial EEPROMs, microperipherals, nonvolatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001:2000 certified.

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PIC18 CONFIGURATION SETTINGS ADDENDUM

Configuration Settings

This addendum lists the configuration settings available for each of the PIC18 devices for use with MPLAB® C18's `#pragma config` directive and MPASM™ assembler's `CONFIG` directive.

PIC18C242

Code Protect:

`CP = ON`	Enabled
`CP = OFF`	Disabled

Oscillator Selection:

`OSC = LP`	LP
`OSC = XT`	XT
`OSC = HS`	HS
`OSC = RC`	RC
`OSC = EC`	EC-OSC2 as Clock Out
`OSC = ECIO`	EC-OSC2 as RA6
`OSC = HSPLL`	HS-PLL Enabled
`OSC = RCIO`	RC-OSC2 as RA6

Osc. Switch Enable:

`OSCS = ON`	Enabled
`OSCS = OFF`	Disabled

Power-up Timer:

`PWRT = ON`	Enabled
`PWRT = OFF`	Disabled

Brown-out Reset:

`BOR = OFF`	Disabled
`BOR = ON`	Enabled

Brown-out Voltage:

`BORV = 45`	4.5V
`BORV = 42`	4.2V
`BORV = 27`	2.7V
`BORV = 25`	2.5V

Watchdog Timer:

`WDT = OFF`	Disabled
`WDT = ON`	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C252

Code Protect:

CP = ON	Enabled
CP = OFF	Disabled

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C442

Code Protect:

CP = ON	Enabled
CP = OFF	Disabled

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C452

Code Protect:

CP = ON	Enabled
CP = OFF	Disabled

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C601

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = EC	EC Oscillator
OSC = HS	HS Oscillator
OSC = RC	RC Oscillator

Power-up Timer:

PWRT = ON	Enable
PWRT = OFF	Disable

External Bus Data Width:

BW = 8	8-bit External Bus mode
BW = 16	16-bit External Bus mode

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Timer Postscale Selection:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Full/Underflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C658

Code Protect:

CP = ON	Enabled
CP = OFF	Disabled

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C801

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = EC	EC Oscillator
OSC = HS	HS Oscillator
OSC = RC	RC Oscillator

Power-up Timer:

PWRT = ON	Enable
PWRT = OFF	Disable

External Bus Data Width:

BW = 8	8-bit External Bus mode
BW = 16	16-bit External Bus mode

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Timer Postscale Selection:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Full/Underflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18C858

Code Protect:

CP = ON	Enabled
CP = OFF	Disabled

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

PIC18F1220

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F1230

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

FLTA MUX Bit:

FLTAMX = RA7	Multiplexed with RA7
FLTAMX = RA5	Multiplexed with RA5

T1OSC MUX bit:

T1OSCMX = LOW	T1OSC pins reside on RB2 and RB3
T1OSCMX = HIGH	T1OSC pins reside on RA6 and RA7

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset Enable Bit:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Dedicated In-Circuit Port Enable Bit:

ENICPORT = OFF	Disabled
ENICPORT = ON	Enabled

Boot Block Size Select Bits:

BBSIZ = BB256	256 W Boot Block Size
BBSIZ = BB512	512 W Boot Block Size

Extended Instruction Set Enable bit:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F1231

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

FLTA MUX Bit:

FLTAMX = RA7	Multiplexed with RA7
FLTAMX = RA5	Multiplexed with RA5

T1OSC MUX bit:

T1OSCMX = LOW	T1OSC pins reside on RB2 and RB3
T1OSCMX = HIGH	T1OSC pins reside on RA6 and RA7

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset Enable Bit:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Dedicated In-Circuit Port Enable Bit:

ENICPORT = OFF	Disabled
ENICPORT = ON	Enabled

Boot Block Size Select Bits:

BBSIZ = BB256	256 W Boot Block Size
BBSIZ = BB512	512 W Boot Block Size

Extended Instruction Set Enable bit:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F1320

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F1330

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

FLTA MUX Bit:

FLTAMX = RA7	Multiplexed with RA7
FLTAMX = RA5	Multiplexed with RA5

T1OSC MUX bit:

T1OSCMX = LOW	T1OSC pins reside on RB2 and RB3
T1OSCMX = HIGH	T1OSC pins reside on RA6 and RA7

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset Enable Bit:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Dedicated In-Circuit Port Enable Bit:

ENICPORT = OFF	Disabled
ENICPORT = ON	Enabled

Boot Block Size Select Bits:

BBSIZ = BB256	256 W Boot Block Size
BBSIZ = BB512	512 W Boot Block Size
BBSIZ = BB1K	1 KW Boot Block Size

Extended Instruction Set Enable bit:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F1331

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

FLTA MUX Bit:

FLTAMX = RA7	Multiplexed with RA7
FLTAMX = RA5	Multiplexed with RA5

T1OSC MUX bit:

T1OSCMX = LOW	T1OSC pins reside on RB2 and RB3
T1OSCMX = HIGH	T1OSC pins reside on RA6 and RA7

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset Enable Bit:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Dedicated In-Circuit Port Enable Bit:

ENICPORT = OFF	Disabled
ENICPORT = ON	Enabled

Boot Block Size Select Bits:

BBSIZ = BB256	256 W Boot Block Size
BBSIZ = BB512	512 W Boot Block Size
BBSIZ = BB1K	1 KW Boot Block Size

Extended Instruction Set Enable bit:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2220

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

PORTB A/D Enable:

PBAD = DIG	Digital
PBAD = ANA	Analog

CCP2 Pin Function:

CCP2MX = B3	RB3
CCP2MX = OFF	RB3
CCP2MX = C1	RC1
CCP2MX = ON	RC1

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2221

Oscillator Selection bits:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO2	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO1	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = DIG	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ANA	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = RB3	CCP2 input/output is multiplexed with RB3
CCP2MX = RC1	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB256	256 Word
BBSIZ = BB512	512 Word

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 code-protected
CP0 = OFF	Block 0 not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 code-protected
CP1 = OFF	Block 1 not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block code-protected
CPB = OFF	Boot block not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 write-protected
WRT0 = OFF	Block 0 not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 write-protected
WRT1 = OFF	Block 1 not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block write-protected
WRTB = OFF	Boot block not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block protected from table reads executed in other blocks
EBTRB = OFF	Boot block not protected from table reads executed in other blocks

PIC18F2320

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

PORTB A/D Enable:

PBAD = DIG	Digital
PBAD = ANA	Analog

CCP2 Pin Function:

CCP2MX = B3	RB3
CCP2MX = OFF	RB3
CCP2MX = C1	RC1
CCP2MX = ON	RC1

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2321

Oscillator Selection bits:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO2	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO1	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = DIG	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ANA	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = RB3	CCP2 input/output is multiplexed with RB3
CCP2MX = RC1	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB256	256 Word
BBSIZ = BB512	512 Word
BBSIZ = BB1K	1024 Word

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 code-protected
CP0 = OFF	Block 0 not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 code-protected
CP1 = OFF	Block 1 not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block code-protected
CPB = OFF	Boot block not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 write-protected
WRT0 = OFF	Block 0 not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 write-protected
WRT1 = OFF	Block 1 not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block write-protected
WRTB = OFF	Boot block not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block protected from table reads executed in other blocks
EBTRB = OFF	Boot block not protected from table reads executed in other blocks

PIC18F2331

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC2	External RC, RA6 is CLKOUT
OSC = EC	EC, RA6 is CLKOUT
OSC = ECIO	EC, RA6 is I/O
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	External RC, RA6 is I/O
OSC = IRCIO	Internal RC, RA6 & RA7 are I/O
OSC = IRC	Internal RC, RA6 is CLKOUT, RA7 is I/O
OSC = RC1	External RC, RA6 is CLKOUT
OSC = RC	External RC, RA6 is CLKOUT

Fail-Safe Clock Monitor Enable:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch-Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRTEN = ON	Enabled
PWRTEN = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDTEN = OFF	Disabled
WDTEN = ON	Enabled

Watchdog Timer Enable Window:

WINEN = ON	Enabled
WINEN = OFF	Disabled

Watchdog Postscaler:

WDPS = 1	1:1
WDPS = 2	1:2
WDPS = 4	1:4
WDPS = 8	1:8
WDPS = 16	1:16
WDPS = 32	1:32
WDPS = 64	1:64
WDPS = 128	1:128
WDPS = 256	1:256
WDPS = 512	1:512
WDPS = 1024	1:1024
WDPS = 2048	1:2048
WDPS = 4096	1:4096
WDPS = 8192	1:8192
WDPS = 16384	1:16384
WDPS = 32768	1:32768

Timer1 Oscillator MUX:

T1OSCMX = OFF	Active
T1OSCMX = ON	Inactive

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2410

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F242

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2420

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2423

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTB	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2431

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC2	External RC, RA6 is CLKOUT
OSC = EC	EC, RA6 is CLKOUT
OSC = ECIO	EC, RA6 is I/O
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	External RC, RA6 is I/O
OSC = IRCIO	Internal RC, RA6 & RA7 are I/O
OSC = IRC	Internal RC, RA6 is CLKOUT, RA7 is I/O
OSC = RC1	External RC, RA6 is CLKOUT
OSC = RC	External RC, RA6 is CLKOUT

Fail-Safe Clock Monitor Enable:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch-Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRTEN = ON	Enabled
PWRTEN = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDTEN = OFF	Disabled
WDTEN = ON	Enabled

Watchdog Timer Enable Window:

WINEN = ON	Enabled
WINEN = OFF	Disabled

Watchdog Postscaler:

WDPS = 1	1:1
WDPS = 2	1:2
WDPS = 4	1:4
WDPS = 8	1:8
WDPS = 16	1:16
WDPS = 32	1:32
WDPS = 64	1:64
WDPS = 128	1:128
WDPS = 256	1:256
WDPS = 512	1:512
WDPS = 1024	1:1024
WDPS = 2048	1:2048
WDPS = 4096	1:4096
WDPS = 8192	1:8192
WDPS = 16384	1:16384
WDPS = 32768	1:32768

Timer1 Oscillator MUX:

T1OSCMX = OFF	Active
T1OSCMX = ON	Inactive

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2439

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2450

96 MHz PLL Prescaler:

PLLDIV = 1	No divide (4 MHz input)
PLLDIV = 2	Divide by 2 (8 MHz input)
PLLDIV = 3	Divide by 3 (12 MHz input)
PLLDIV = 4	Divide by 4 (16 MHz input)
PLLDIV = 5	Divide by 5 (20 MHz input)
PLLDIV = 6	Divide by 6 (24 MHz input)
PLLDIV = 10	Divide by 10 (40 MHz input)
PLLDIV = 12	Divide by 12 (48 MHz input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

Full-Speed USB Clock Source Selection:

USBDIV = 1	Clock source from OSC1/OSC2
USBDIV = 2	Clock source from 96 MHz PLL/2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor:

FCMEM = OFF	Disabled
FCMEM = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SOFT	Controlled by SBOREN
BOR = ON_ACTIVE	Enabled when the device is not in Sleep, SBOREN bit is disabled
BOR = ON	Enabled, SBOREN bit is disabled

Brown-out Voltage:

BORV = 46	4.6V
BORV = 43	4.3V
BORV = 28	2.8V
BORV = 21	2.1V

USB Voltage Regulator Enable:

VREGEN = OFF	Disabled
VREGEN = ON	Enabled

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator Enable:

LPT1OSC = OFF	Timer1 oscillator configured for high power
LPT1OSC = ON	Timer1 oscillator configured for low power

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input on Reset

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Boot Block Size Select Bit:

BBSIZ = BB2K	2KW Boot Block Size
BBSIZ = BB1K	1KW Boot Block Size

Dedicated In-Circuit Debug/Programming Enable:

ICPRT = OFF	Disabled
ICPRT = ON	Enabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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PLL Prescaler Selection bits:

PLLDIV = 1	No prescale (4 MHz oscillator input drives PLL directly)
PLLDIV = 2	Divide by 2 (8 MHz oscillator input)
PLLDIV = 3	Divide by 3 (12 MHz oscillator input)
PLLDIV = 4	Divide by 4 (16 MHz oscillator input)
PLLDIV = 5	Divide by 5 (20 MHz oscillator input)
PLLDIV = 6	Divide by 6 (24 MHz oscillator input)
PLLDIV = 10	Divide by 10 (40 MHz oscillator input)
PLLDIV = 12	Divide by 12 (48 MHz oscillator input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

USB Clock Selection bit (used in Full Speed USB mode only; UCFG:FSEN = 1):

USBDIV = 1	USB clock source comes directly from the primary oscillator block with no postscale
USBDIV = 2	USB clock source comes from the 96 MHz PLL divided by 2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor Enable bit:

FCMEM = OFF	Fail-Safe Clock Monitor disabled
FCMEM = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = ON_ACTIVE	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

USB Voltage Regulator Enable bit:

VREGEN = OFF	USB voltage regulator disabled
VREGEN = ON	USB voltage regulator enabled

Watchdog Timer Enable bit:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RB3
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Configuration registers (300000-3000FFh) write-protected
WRTB = OFF	Configuration registers (300000-3000FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Boot block (000000-0007FFh) write-protected
WRTC = OFF	Boot block (000000-0007FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F248

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2480

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLKO function on OSC2

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

CCP2 MUX bit:

CCP2MX = ALTERNATE	CCP2 is multiplexed with RB3
CCP2MX = DEFAULT	CCP2 is multiplexed with RC1

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2515

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-003FFFh) code-protected
CP0 = OFF	Block 0 (000800-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F252

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2520

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2523

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTB	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2525

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except Sleep, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> digital on Reset
PBADEN = ON	PORTB<4:0> analog on Reset

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2539

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2550

PLL Prescaler Selection bits:

PLLDIV = 1	No prescale (4 MHz oscillator input drives PLL directly)
PLLDIV = 2	Divide by 2 (8 MHz oscillator input)
PLLDIV = 3	Divide by 3 (12 MHz oscillator input)
PLLDIV = 4	Divide by 4 (16 MHz oscillator input)
PLLDIV = 5	Divide by 5 (20 MHz oscillator input)
PLLDIV = 6	Divide by 6 (24 MHz oscillator input)
PLLDIV = 10	Divide by 10 (40 MHz oscillator input)
PLLDIV = 12	Divide by 12 (48 MHz oscillator input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

USB Clock Selection bit (used in Full Speed USB mode only; UCFG:FSEN = 1):

USBDIV = 1	USB clock source comes directly from the primary oscillator block with no postscale
USBDIV = 2	USB clock source comes from the 96 MHz PLL divided by 2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor Enable bit:

FCMEM = OFF	Fail-Safe Clock Monitor disabled
FCMEM = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = ON_ACTIVE	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

USB Voltage Regulator Enable bit:

VREGEN = OFF	USB voltage regulator disabled
VREGEN = ON	USB voltage regulator enabled

Watchdog Timer Enable bit:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RB3
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Configuration registers (300000-3000FFh) write-protected
WRTB = OFF	Configuration registers (300000-3000FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Boot block (000000-0007FFh) write-protected
WRTC = OFF	Boot block (000000-0007FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F258

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2580

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2585

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLKO function on OSC2

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

CCP2 MUX bit:

CCP2MX = ALTERNATE	CCP2 is multiplexed with RB3
CCP2MX = DEFAULT	CCP2 is multiplexed with RC1

PIC18F25K20

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power Up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown Out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except SLEEP, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown Out Voltage:

BORV = 46	3.0V
BORV = 43	2.7V
BORV = 28	2.2V
BORV = 21	1.8

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

Port B A/D Enable:

PBADEN = OFF	Port B<4:0> digital on RESET
PBADEN = ON	Port B<4:0> analog on RESET

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2610

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-003FFFh) code-protected
CP0 = OFF	Block 0 (000800-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F2620

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except Sleep, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> digital on Reset
PBADEN = ON	PORTB<4:0> analog on Reset

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2680

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F2685

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = SBORENCTRL	Controlled by SBOREN
BOREN = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOREN = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Code Protection Block 4:

CP4 = ON	Enabled
CP4 = OFF	Disabled

Code Protection Block 5:

CP5 = ON	Enabled
CP5 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Write Protection Block 4:

WRT4 = ON	Enabled
WRT4 = OFF	Disabled

Write Protection Block 5:

WRT5 = ON	Enabled
WRT5 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Table Read Protection Block 4:

EBTR4 = ON	Enabled
EBTR4 = OFF	Disabled

Table Read Protection Block 5:

EBTR5 = ON	Enabled
EBTR5 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4220

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

PORTB A/D Enable:

PBAD = DIG	Digital
PBAD = ANA	Analog

CCP2 Pin Function:

CCP2MX = B3	RB3
CCP2MX = OFF	RB3
CCP2MX = C1	RC1
CCP2MX = ON	RC1

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4221

Oscillator Selection bits:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO2	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO1	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = DIG	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ANA	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = RB3	CCP2 input/output is multiplexed with RB3
CCP2MX = RC1	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Dedicated In-Circuit Debug/Programming Port (ICPORT) Enable bit:

ICPORT = OFF	ICPORT disabled
ICPORT = ON	ICPORT enabled

Boot Block Size Select bits:

BBSIZ = BB256	256 Word
BBSIZ = BB512	512 Word

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 code-protected
CP0 = OFF	Block 0 not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 code-protected
CP1 = OFF	Block 1 not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block code-protected
CPB = OFF	Boot block not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 write-protected
WRT0 = OFF	Block 0 not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 write-protected
WRT1 = OFF	Block 1 not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block write-protected
WRTB = OFF	Boot block not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block protected from table reads executed in other blocks
EBTRB = OFF	Boot block not protected from table reads executed in other blocks

PIC18F4320

Oscillator Selection:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = EC	External Clock on OSC1, OSC2 as FOSC/4
OSC = ECIO	External Clock on OSC1, OSC2 as RA6
OSC = HSPLL	HS + PLL
OSC = RCIO	External RC on OSC1, OSC2 as RA6
OSC = INTIO2	Internal RC, OSC1 as RA7, OSC2 as RA6
OSC = INTIO1	Internal RC, OSC1 as RA7, OSC2 as FOSC/4
OSC = RC	External RC on OSC1, OSC2 as FOSC/4

Fail-Safe Clock Monitor:

FSCM = OFF	Fail-Safe Clock Monitor disabled
FSCM = ON	Fail-Safe Clock Monitor enabled

Internal External Switch Over mode:

IESO = OFF	Internal External Switch Over mode disabled
IESO = ON	Internal External Switch Over mode enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

PORTB A/D Enable:

PBAD = DIG	Digital
PBAD = ANA	Analog

CCP2 Pin Function:

CCP2MX = B3	RB3
CCP2MX = OFF	RB3
CCP2MX = C1	RC1
CCP2MX = ON	RC1

Stack Full/Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4321

Oscillator Selection bits:

OSC = LP	LP Oscillator
OSC = XT	XT Oscillator
OSC = HS	HS Oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO2	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO1	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = DIG	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ANA	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = RB3	CCP2 input/output is multiplexed with RB3
CCP2MX = RC1	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Dedicated In-Circuit Debug/Programming Port (ICPORT) Enable bit:

ICPORT = OFF	ICPORT disabled
ICPORT = ON	ICPORT enabled

Boot Block Size Select bits:

BBSIZ = BB256	256 Word
BBSIZ = BB512	512 Word
BBSIZ = BB1K	1024 Word

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 code-protected
CP0 = OFF	Block 0 not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 code-protected
CP1 = OFF	Block 1 not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block code-protected
CPB = OFF	Boot block not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 write-protected
WRT0 = OFF	Block 0 not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 write-protected
WRT1 = OFF	Block 1 not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block write-protected
WRTB = OFF	Boot block not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block protected from table reads executed in other blocks
EBTRB = OFF	Boot block not protected from table reads executed in other blocks

PIC18F4331

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC2	External RC, RA6 is CLKOUT
OSC = EC	EC, RA6 is CLKOUT
OSC = ECIO	EC, RA6 is I/O
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	External RC, RA6 is I/O
OSC = IRCIO	Internal RC, RA6 & RA7 are I/O
OSC = IRC	Internal RC, RA6 is CLKOUT, RA7 is I/O
OSC = RC1	External RC, RA6 is CLKOUT
OSC = RC	External RC, RA6 is CLKOUT

Fail-Safe Clock Monitor Enable:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch-Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRTEN = ON	Enabled
PWRTEN = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDTEN = OFF	Disabled
WDTEN = ON	Enabled

Watchdog Timer Enable Window:

WINEN = ON	Enabled
WINEN = OFF	Disabled

Watchdog Postscaler:

WDPS = 1	1:1
WDPS = 2	1:2
WDPS = 4	1:4
WDPS = 8	1:8
WDPS = 16	1:16
WDPS = 32	1:32
WDPS = 64	1:64
WDPS = 128	1:128
WDPS = 256	1:256
WDPS = 512	1:512
WDPS = 1024	1:1024
WDPS = 2048	1:2048
WDPS = 4096	1:4096
WDPS = 8192	1:8192
WDPS = 16384	1:16384
WDPS = 32768	1:32768

Timer1 Oscillator MUX:

T1OSCMX = OFF	Active
T1OSCMX = ON	Inactive

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

External clock MUX bit:

EXCLKMX = RD0	Multiplexed with RD0
EXCLKMX = RC3	Multiplexed with RC3

PWM4 MUX bit:

PWM4MX = RD5	Multiplexed with RD5
PWM4MX = RB5	Multiplexed with RB5

SSP I/O MUX bit:

SSPMX = RD1	SDO output is multiplexed with RD1
SSPMX = RC7	SD0 output is multiplexed with RC7

FLTA MUX bit:

FLTAMX = RD4	Multiplexed with RD4
FLTAMX = RC1	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4410

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F442

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4420

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4423

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTB	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4431

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC2	External RC, RA6 is CLKOUT
OSC = EC	EC, RA6 is CLKOUT
OSC = ECIO	EC, RA6 is I/O
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	External RC, RA6 is I/O
OSC = IRCIO	Internal RC, RA6 & RA7 are I/O
OSC = IRC	Internal RC, RA6 is CLKOUT, RA7 is I/O
OSC = RC1	External RC, RA6 is CLKOUT
OSC = RC	External RC, RA6 is CLKOUT

Fail-Safe Clock Monitor Enable:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch-Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRTEN = ON	Enabled
PWRTEN = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDTEN = OFF	Disabled
WDTEN = ON	Enabled

Watchdog Timer Enable Window:

WINEN = ON	Enabled
WINEN = OFF	Disabled

Watchdog Postscaler:

WDPS = 1	1:1
WDPS = 2	1:2
WDPS = 4	1:4
WDPS = 8	1:8
WDPS = 16	1:16
WDPS = 32	1:32
WDPS = 64	1:64
WDPS = 128	1:128
WDPS = 256	1:256
WDPS = 512	1:512
WDPS = 1024	1:1024
WDPS = 2048	1:2048
WDPS = 4096	1:4096
WDPS = 8192	1:8192
WDPS = 16384	1:16384
WDPS = 32768	1:32768

Timer1 Oscillator MUX:

T1OSCMX = OFF	Active
T1OSCMX = ON	Inactive

High-Side Transistors Polarity:

HPOL = LOW	Active low
HPOL = HIGH	Active high

Low-Side Transistors Polarity:

LPOL = LOW	Active low
LPOL = HIGH	Active high

PWM output pins Reset state control:

PWMPIN = ON	Enabled
PWMPIN = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

External clock MUX bit:

EXCLKMX = RD0	Multiplexed with RD0
EXCLKMX = RC3	Multiplexed with RC3

PWM4 MUX bit:

PWM4MX = RD5	Multiplexed with RD5
PWM4MX = RB5	Multiplexed with RB5

SSP I/O MUX bit:

SSPMX = RD1	SDO output is multiplexed with RD1
SSPMX = RC7	SD0 output is multiplexed with RC7

FLTA MUX bit:

FLTAMX = RD4	Multiplexed with RD4
FLTAMX = RC1	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4439

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4450

96 MHz PLL Prescaler:

PLLDIV = 1	No divide (4 MHz input)
PLLDIV = 2	Divide by 2 (8 MHz input)
PLLDIV = 3	Divide by 3 (12 MHz input)
PLLDIV = 4	Divide by 4 (16 MHz input)
PLLDIV = 5	Divide by 5 (20 MHz input)
PLLDIV = 6	Divide by 6 (24 MHz input)
PLLDIV = 10	Divide by 10 (40 MHz input)
PLLDIV = 12	Divide by 12 (48 MHz input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

Full-Speed USB Clock Source Selection:

USBDIV = 1	Clock source from OSC1/OSC2
USBDIV = 2	Clock source from 96 MHz PLL/2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor:

FCMEM = OFF	Disabled
FCMEM = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SOFT	Controlled by SBOREN
BOR = ON_ACTIVE	Enabled when the device is not in Sleep, SBOREN bit is disabled
BOR = ON	Enabled, SBOREN bit is disabled

Brown-out Voltage:

BORV = 46	4.6V
BORV = 43	4.3V
BORV = 28	2.8V
BORV = 21	2.1V

USB Voltage Regulator Enable:

VREGEN = OFF	Disabled
VREGEN = ON	Enabled

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator Enable:

LPT1OSC = OFF	Timer1 oscillator configured for high power
LPT1OSC = ON	Timer1 oscillator configured for low power

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input on Reset

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Boot Block Size Select Bit:

BBSIZ = BB2K	2KW Boot Block Size
BBSIZ = BB1K	1KW Boot Block Size

Dedicated In-Circuit Debug/Programming Enable:

ICPRT = OFF	Disabled
ICPRT = ON	Enabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4455

PLL Prescaler Selection bits:

PLLDIV = 1	No prescale (4 MHz oscillator input drives PLL directly)
PLLDIV = 2	Divide by 2 (8 MHz oscillator input)
PLLDIV = 3	Divide by 3 (12 MHz oscillator input)
PLLDIV = 4	Divide by 4 (16 MHz oscillator input)
PLLDIV = 5	Divide by 5 (20 MHz oscillator input)
PLLDIV = 6	Divide by 6 (24 MHz oscillator input)
PLLDIV = 10	Divide by 10 (40 MHz oscillator input)
PLLDIV = 12	Divide by 12 (48 MHz oscillator input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

USB Clock Selection bit (used in Full Speed USB mode only; UCFG:FSEN = 1):

USBDIV = 1	USB clock source comes directly from the primary oscillator block with no postscale
USBDIV = 2	USB clock source comes from the 96 MHz PLL divided by 2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor Enable bit:

FCMEM = OFF	Fail-Safe Clock Monitor disabled
FCMEM = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = ON_ACTIVE	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

USB Voltage Regulator Enable bit:

VREGEN = OFF	USB voltage regulator disabled
VREGEN = ON	USB voltage regulator enabled

Watchdog Timer Enable bit:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RB3
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Dedicated In-Circuit Debug/Programming Port (ICPORT) Enable bit:

ICPRT = OFF	ICPORT disabled
ICPRT = ON	ICPORT enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Configuration registers (300000-3000FFh) write-protected
WRTB = OFF	Configuration registers (300000-3000FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Boot block (000000-0007FFh) write-protected
WRTC = OFF	Boot block (000000-0007FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F448

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4480

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLKO function on OSC2

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

CCP2 MUX bit:

CCP2MX = ALTERNATE	CCP2 is multiplexed with RB3
CCP2MX = DEFAULT	CCP2 is multiplexed with RC1

PIC18F4510

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4515

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-003FFFh) code-protected
CP0 = OFF	Block 0 (000800-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F452

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disable (RB3)
CCP2MUX = ON	Enable (RC1)

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4520

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4523

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTB	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4525

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except Sleep, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> digital on Reset
PBADEN = ON	PORTB<4:0> analog on Reset

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4539

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4550

PLL Prescaler Selection bits:

PLLDIV = 1	No prescale (4 MHz oscillator input drives PLL directly)
PLLDIV = 2	Divide by 2 (8 MHz oscillator input)
PLLDIV = 3	Divide by 3 (12 MHz oscillator input)
PLLDIV = 4	Divide by 4 (16 MHz oscillator input)
PLLDIV = 5	Divide by 5 (20 MHz oscillator input)
PLLDIV = 6	Divide by 6 (24 MHz oscillator input)
PLLDIV = 10	Divide by 10 (40 MHz oscillator input)
PLLDIV = 12	Divide by 12 (48 MHz oscillator input)

CPU System Clock Postscaler:

CPUDIV = OSC1_PLL2	[OSC1/OSC2 Src: /1][96 MHz PLL Src: /2]
CPUDIV = OSC2_PLL3	[OSC1/OSC2 Src: /2][96 MHz PLL Src: /3]
CPUDIV = OSC3_PLL4	[OSC1/OSC2 Src: /3][96 MHz PLL Src: /4]
CPUDIV = OSC4_PLL6	[OSC1/OSC2 Src: /4][96 MHz PLL Src: /6]

USB Clock Selection bit (used in Full Speed USB mode only; UCFG:FSEN = 1):

USBDIV = 1	USB clock source comes directly from the primary oscillator block with no postscale
USBDIV = 2	USB clock source comes from the 96 MHz PLL divided by 2

Oscillator Selection bits:

FOSC = XT_XT	XT oscillator, XT used by USB
FOSC = XTPLL_XT	XT oscillator, PLL enabled, XT used by USB
FOSC = ECIO_EC	External clock, port function on RA6, EC used by USB
FOSC = EC_EC	External clock, CLKOUT on RA6, EC used by USB
FOSC = ECPLLIO_EC	External clock, PLL enabled, port function on RA6, EC used by USB
FOSC = ECPLL_EC	External clock, PLL enabled, CLKOUT on RA6, EC used by USB
FOSC = INTOSCIO_EC	Internal oscillator, port function on RA6, EC used by USB
FOSC = INTOSC_EC	Internal oscillator, CLKOUT on RA6, EC used by USB
FOSC = INTOSC_XT	Internal oscillator, XT used by USB
FOSC = INTOSC_HS	Internal oscillator, HS used by USB
FOSC = HS	HS oscillator, HS used by USB
FOSC = HSPLL_HS	HS oscillator, PLL enabled, HS used by USB

Fail-Safe Clock Monitor Enable bit:

FCMEM = OFF	Fail-Safe Clock Monitor disabled
FCMEM = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOR = OFF	Brown-out Reset disabled in hardware and software
BOR = SOFT	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOR = ON_ACTIVE	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOR = ON	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

USB Voltage Regulator Enable bit:

VREGEN = OFF	USB voltage regulator disabled
VREGEN = ON	USB voltage regulator enabled

Watchdog Timer Enable bit:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RE3 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RE3 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RB3
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Dedicated In-Circuit Debug/Programming Port (ICPORT) Enable bit:

ICPRT = OFF	ICPORT disabled
ICPRT = ON	ICPORT enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-001FFFh) code-protected
CP0 = OFF	Block 0 (000800-001FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (002000-003FFFh) code-protected
CP1 = OFF	Block 1 (002000-003FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (004000-005FFFh) code-protected
CP2 = OFF	Block 2 (004000-005FFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (006000-007FFFh) code-protected
CP3 = OFF	Block 3 (006000-007FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-001FFFh) write-protected
WRT0 = OFF	Block 0 (000800-001FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (002000-003FFFh) write-protected
WRT1 = OFF	Block 1 (002000-003FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (004000-005FFFh) write-protected
WRT2 = OFF	Block 2 (004000-005FFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (006000-007FFFh) write-protected
WRT3 = OFF	Block 3 (006000-007FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Configuration registers (300000-3000FFh) write-protected
WRTB = OFF	Configuration registers (300000-3000FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Boot block (000000-0007FFh) write-protected
WRTC = OFF	Boot block (000000-0007FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-001FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-001FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (002000-003FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (004000-005FFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (004000-005FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (006000-007FFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (006000-007FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F458

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4580

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4585

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Enhanced Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLKO function on OSC2

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

CCP2 MUX bit:

CCP2MX = ALTERNATE	CCP2 is multiplexed with RB3
CCP2MX = DEFAULT	CCP2 is multiplexed with RC1

PIC18F45K20

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power Up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown Out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except SLEEP, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown Out Voltage:

BORV = 46	3.0V
BORV = 43	2.7V
BORV = 28	2.2V
BORV = 21	1.8

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

Port B A/D Enable:

PBADEN = OFF	Port B<4:0> digital on RESET
PBADEN = ON	Port B<4:0> analog on RESET

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4610

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	MCLR pin enabled; RE3 input pin disabled
MCLRE = ON	RE3 input pin enabled; MCLR disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

PORTB A/D Enable bit:

PBADEN = OFF	PORTB<4:0> pins are configured as digital I/O on Reset
PBADEN = ON	PORTB<4:0> pins are configured as analog input channels on Reset

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RB3
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800-003FFFh) code-protected
CP0 = OFF	Block 0 (000800-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot block (000000-0007FFh) code-protected
CPB = OFF	Boot block (000000-0007FFh) not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot block (000000-0007FFh) write-protected
WRTB = OFF	Boot block (000000-0007FFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot block (000000-0007FFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot block (000000-0007FFh) not protected from table reads executed in other blocks

PIC18F4620

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO6	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO6	RC-OSC2 as RA6
OSC = INTIO67	INTRC-OSC2 as RA6, OSC1 as RA7
OSC = INTIO7	INTRC-OSC2 as Clock Out, OSC1 as RA7

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = ON	SBOREN Enabled
BOREN = NOSLP	Enabled except Sleep, SBOREN Disabled
BOREN = SBORDIS	Enabled, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

T1 Oscillator Enable:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB A/D Enable:

PBADEN = OFF	PORTB<4:0> digital on Reset
PBADEN = ON	PORTB<4:0> analog on Reset

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

XINST Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F4680

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMENB = OFF	Disabled
FCMENB = ON	Enabled

Internal External Osc. Switch:

IESOB = OFF	Disabled
IESOB = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = SBORENCTRL	Controlled by SBOREN
BOR = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOR = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Timer1 Low Power Oscillator Disabled
LPT1OSC = ON	Timer1 Low Power Oscillator Active

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Enhanced Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	External RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	External RC with OSC2 as RA6
OSC = IRCIO67	Internal RC with OSC2 as RA6 and OSC1 as RA7
OSC = IRCIO7	Internal RC with OSC1 as RA7 and OSC2 as divide by 4 clock out
OSC = ERC1	External RC with OSC2 as divide by 4 clock out
OSC = ERC	External RC with OSC2 as divide by 4 clock out

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal External Osc. Switch:

IESO = OFF	Disabled
IESO = ON	Enabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOREN = OFF	Disabled
BOREN = SBORENCTRL	Controlled by SBOREN
BOREN = BOACTIVE	Enabled whenever Part is Active - SBOREN Disabled
BOREN = BOHW	Enabled in HW, SBOREN Disabled

Brown-out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

Low Power Timer1 Oscillator:

LPT1OSC = OFF	Disabled
LPT1OSC = ON	Enabled

PORTB Pins Configured for A/D:

PBADEN = OFF	PORTB<4> and PORTB<1:0> Configured as Digital I/O Pins on Reset
PBADEN = ON	PORTB<4> and PORTB<1:0> Configured as Analog Pins on Reset

BackGround Debug:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Enhanced Instruction Set CPU:

XINST = OFF	Disabled
XINST = ON	Enabled

Boot Block Size:

BBSIZ = 1024	1K words (2K bytes) Boot Block
BBSIZ = 2048	2K words (4K bytes) Boot Block
BBSIZ = 4096	4K words (8K bytes) Boot Block

Low Voltage Programming:

LVP = OFF	Disabled
LVP = ON	Enabled

Stack Overflow/Underflow Reset:

STVREN = OFF	Disabled
STVREN = ON	Enabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Code Protection Block 4:

CP4 = ON	Enabled
CP4 = OFF	Disabled

Code Protection Block 5:

CP5 = ON	Enabled
CP5 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Write Protection Block 4:

WRT4 = ON	Enabled
WRT4 = OFF	Disabled

Write Protection Block 5:

WRT5 = ON	Enabled
WRT5 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Table Read Protection Block 4:

EBTR4 = ON	Enabled
EBTR4 = OFF	Disabled

Table Read Protection Block 5:

EBTR5 = ON	Enabled
EBTR5 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F6310

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block code-protected
CP = OFF	Program memory block not code-protected

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown Out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block (000000-003FFFh) code-protected
CP = OFF	Program memory block (000000-003FFFh) not code-protected

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

PIC18F6410

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block code-protected
CP = OFF	Program memory block not code-protected

PIC18F6490

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown Out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block (000000-003FFFh) code-protected
CP = OFF	Program memory block (000000-003FFFh) not code-protected

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

PIC18F6520

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC-OSC2 as Clock Out
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Uses RE7
CCP2MUX = RE7	Uses RE7
CCP2MUX = ON	Uses RC1
CCP2MUX = RC1	Uses RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F6525

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6
OSC = ECIOPLL	EC-OSC2 as RA6 and PLL
OSC = ECIOSWPLL	EC-OSC2 as RA6 and SW PLL
OSC = HSSWPLL	HS with SW PLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3 or RE7
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F6527

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	ECCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

PIC18F6585

Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	RC with OSC2 as RA6
OSC = ECIOPLL	EC with OSC2 as RA6 and HW enabled 4xPLL
OSC = ECIOSWPLL	EC with OSC2 as RA6 and SW enabled 4xPLL
OSC = HSSWPLL	HS with SW enabled 4xPLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RE7
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disabled
CCP2MUX = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6
OSC = ECIOPLL	EC-OSC2 as RA6 and PLL
OSC = ECIOSWPLL	EC-OSC2 as RA6 and SW PLL
OSC = HSSWPLL	HS with SW PLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3 or RE7
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	ECCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	ECCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Code Protection bit Block 4:

CP4 = ON	Block 4 (010000-013FFFh) code-protected
CP4 = OFF	Block 4 (010000-013FFFh) not code-protected

Code Protection bit Block 5:

CP5 = ON	Block 5 (014000-017FFFh) code-protected
CP5 = OFF	Block 5 (014000-017FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Write Protection bit Block 4:

WRT4 = ON	Block 4 (010000-013FFFh) write-protected
WRT4 = OFF	Block 4 (010000-013FFFh) not write-protected

Write Protection bit Block 5:

WRT5 = ON	Block 5 (014000-017FFFh) write-protected
WRT5 = OFF	Block 5 (014000-017FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 4:

EBTR4 = ON	Block 4 (010000-013FFFh) protected from table reads executed in other blocks
EBTR4 = OFF	Block 4 (010000-013FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 5:

EBTR5 = ON	Block 5 (014000-017FFFh) protected from table reads executed in other blocks
EBTR5 = OFF	Block 5 (014000-017FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	RC with OSC2 as RA6
OSC = ECIOPLL	EC with OSC2 as RA6 and HW enabled 4xPLL
OSC = ECIOSWPLL	EC with OSC2 as RA6 and SW enabled 4xPLL
OSC = HSSWPLL	HS with SW enabled 4xPLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RE7
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

PIC18F6720

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

CCP2 MUX:

CCP2MUX = OFF	Disabled
CCP2MUX = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Code Protection Block 4:

CP4 = ON	Enabled
CP4 = OFF	Disabled

Code Protection Block 5:

CP5 = ON	Enabled
CP5 = OFF	Disabled

Code Protection Block 6:

CP6 = ON	Enabled
CP6 = OFF	Disabled

Code Protection Block 7:

CP7 = ON	Enabled
CP7 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Write Protection Block 4:

WRT4 = ON	Enabled
WRT4 = OFF	Disabled

Write Protection Block 5:

WRT5 = ON	Enabled
WRT5 = OFF	Disabled

Write Protection Block 6:

WRT6 = ON	Enabled
WRT6 = OFF	Disabled

Write Protection Block 7:

WRT7 = ON	Enabled
WRT7 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Table Read Protection Block 4:

EBTR4 = ON	Enabled
EBTR4 = OFF	Disabled

Table Read Protection Block 5:

EBTR5 = ON	Enabled
EBTR5 = OFF	Disabled

Table Read Protection Block 6:

EBTR6 = ON	Enabled
EBTR6 = OFF	Disabled

Table Read Protection Block 7:

EBTR7 = ON	Enabled
EBTR7 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTE	ECCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Code Protection bit Block 4:

CP4 = ON	Block 4 (010000-013FFFh) code-protected
CP4 = OFF	Block 4 (010000-013FFFh) not code-protected

Code Protection bit Block 5:

CP5 = ON	Block 5 (014000-017FFFh) code-protected
CP5 = OFF	Block 5 (014000-017FFFh) not code-protected

Code Protection bit Block 6:

CP6 = ON	Block 6 (01BFFF-018000h) code-protected
CP6 = OFF	Block 6 (01BFFF-018000h) not code-protected

Code Protection bit Block 7:

CP7 = ON	Block 7 (01C000-01FFFFh) code-protected
CP7 = OFF	Block 7 (01C000-01FFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Write Protection bit Block 4:

WRT4 = ON	Block 4 (010000-013FFFh) write-protected
WRT4 = OFF	Block 4 (010000-013FFFh) not write-protected

Write Protection bit Block 5:

WRT5 = ON	Block 5 (014000-017FFFh) write-protected
WRT5 = OFF	Block 5 (014000-017FFFh) not write-protected

Write Protection bit Block 6:

WRT6 = ON	Block 6 (01BFFF-018000h) write-protected
WRT6 = OFF	Block 6 (01BFFF-018000h) not write-protected

Write Protection bit Block 7:

WRT7 = ON	Block 7 (01C000-01FFFFh) write-protected
WRT7 = OFF	Block 7 (01C000-01FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 4:

EBTR4 = ON	Block 4 (010000-013FFFh) protected from table reads executed in other blocks
EBTR4 = OFF	Block 4 (010000-013FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 5:

EBTR5 = ON	Block 5 (014000-017FFFh) protected from table reads executed in other blocks
EBTR5 = OFF	Block 5 (014000-017FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 6:

EBTR6 = ON	Block 6 (018000-01BFFFh) protected from table reads executed in other blocks
EBTR6 = OFF	Block 6 (018000-01BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 7:

EBTR7 = ON	Block 7 (01C000-01FFFFh) protected from table reads executed in other blocks
EBTR7 = OFF	Block 7 (01C000-01FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

PM = EM	Extended Microcontroller mode
PM = MPB	Microprocessor with Boot Block mode
PM = MP	Microprocessor mode
PM = MC	Microcontroller mode

External Bus Data Width Select bit:

BW = 8	8-bit External Bus Data Width
BW = 16	16-bit External Bus Data Width

External Bus Data Wait Enable bit:

WAIT = ON	Wait programmed by WAIT1 and WAIT0 bits of MEMCOM register (MEMCOM<5:4>)
WAIT = OFF	Wait selections unavailable, device will not wait

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block code-protected
CP = OFF	Program memory block not code-protected

Table Read Protection bit:

EBTR = ON	Internal program memory block protected from table reads executed from external memory block
EBTR = OFF	Internal program memory block not protected from table reads executed from external memory block

PIC18F8390

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown Out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block (000000-003FFFh) code-protected
CP = OFF	Program memory block (000000-003FFFh) not code-protected

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

PIC18F8410

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Reset Voltage bits:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

PM = EM	Extended Microcontroller mode
PM = MPB	Microprocessor with Boot Block mode
PM = MP	Microprocessor mode
PM = MC	Microcontroller mode

External Bus Data Width Select bit:

BW = 8	8-bit External Bus Data Width
BW = 16	16-bit External Bus Data Width

External Bus Data Wait Enable bit:

WAIT = ON	Wait programmed by WAIT1 and WAIT0 bits of MEMCOM register (MEMCOM<5:4>)
WAIT = OFF	Wait selections unavailable, device will not wait

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block code-protected
CP = OFF	Program memory block not code-protected

Table Read Protection bit:

EBTR = ON	Internal program memory block protected from table reads executed from external memory block
EBTR = OFF	Internal program memory block not protected from table reads executed from external memory block

PIC18F8490

Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (clock frequency = 4 x FOSC1)
OSC = RCIO	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Oscillator Switchover mode disabled
IESO = ON	Oscillator Switchover mode enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown Out Voltage:

BORV = 0	Maximum Setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum Setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer 1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

CCP2 MUX bit:

CCP2MX = PORTBE	CCP2 input/output is multiplexed with RE7
CCP2MX = PORTC	CCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit:

CP = ON	Program memory block (000000-003FFFh) code-protected
CP = OFF	Program memory block (000000-003FFFh) not code-protected

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

PIC18F8520

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC-OSC2 as Clock Out
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

CCP2 MUX:

CCP2MUX = OFF	Uses RE7
CCP2MUX = RE7	Uses RE7
CCP2MUX = ON	Uses RC1
CCP2MUX = RC1	Uses RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

PIC18F8525

Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6
OSC = ECIOPLL	EC-OSC2 as RA6 and PLL
OSC = ECIOSWPLL	EC-OSC2 as RA6 and SW PLL
OSC = HSSWPLL	HS with SW PLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

ECCP MUX:

ECCPMX = PORTH	Multiplexed with RH7:4
ECCPMX = PORTE	Multiplexed with RE6:3

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3 or RE7
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

Address Bus Width Select bits:

ADDRBW = ADDR8BIT	8-bit Address Bus
ADDRBW = ADDR12BIT	12-bit Address Bus
ADDRBW = ADDR16BIT	16-bit Address Bus
ADDRBW = ADDR20BIT	20-bit Address Bus

Data Bus Width Select bit:

DATABW = DATA8BIT	8-bit External Bus mode
DATABW = DATA16BIT	16-bit External Bus mode

External Bus Data Wait Enable bit:

WAIT = ON	Wait selections for table reads and table writes are determined by the WAIT1:WAIT0 bits
WAIT = OFF	Wait selections are unavailable for table reads and table writes

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

ECCP MUX bit:

ECCPMX = PORTH	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RH7, RH6, RH5 and RH4 respectively
ECCPMX = PORTE	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RE6, RE5, RE4 and RE3 respectively

CCP2 MUX bit:

CCP2MX = PORTBE	ECCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	RC with OSC2 as RA6
OSC = ECIOPLL	EC with OSC2 as RA6 and HW enabled 4xPLL
OSC = ECIOSWPLL	EC with OSC2 as RA6 and SW enabled 4xPLL
OSC = HSSWPLL	HS with SW enabled 4xPLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RE7
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Wait Enable bit:

WAIT = ON	Wait states for operations on external memory bus enabled
WAIT = OFF	Wait states for operations on external memory bus disabled

Data Bus Width Select bit:

BW = 8	8-bit external bus mode
BW = 16	16-bit external bus mode

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode, 12-bit Address mode
MODE = XM16	Extended Microcontroller mode, 16-bit Address mode
MODE = XM20	Extended Microcontroller mode, 20-bit Address mode

External Address Bus Shift Enable bit:

EASHFT = OFF	Address shifting disabled, address on external bus reflects the PC value
EASHFT = ON	Address shifting enabled, address on external bus is offset to start at 000000h

ECCPx MUX bit:

ECCPMX = ALTERNATE	ECCP1 outputs (P1B/P1C) are multiplexed with RH7 and RH6; ECCP3 outputs (P3B/P3C) are multiplexed with RH5 and RH4
ECCPMX = DEFAULT	ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Wait Enable bit:

WAIT = ON	Wait states for operations on external memory bus enabled
WAIT = OFF	Wait states for operations on external memory bus disabled

Data Bus Width Select bit:

BW = 8	8-bit external bus mode
BW = 16	16-bit external bus mode

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode, 12-bit Address mode
MODE = XM16	Extended Microcontroller mode, 16-bit Address mode
MODE = XM20	Extended Microcontroller mode, 20-bit Address mode

External Address Bus Shift Enable bit:

EASHFT = OFF	Address shifting disabled, address on external bus reflects the PC value
EASHFT = ON	Address shifting enabled, address on external bus is offset to start at 000000h

ECCPx MUX bit:

ECCPMX = ALTERNATE	ECCP1 outputs (P1B/P1C) are multiplexed with RH7 and RH6; ECCP3 outputs (P3B/P3C) are multiplexed with RH5 and RH4
ECCPMX = DEFAULT	ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

CCP2 MUX:

CCP2MUX = OFF	Disabled
CCP2MUX = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6
OSC = ECIOPLL	EC-OSC2 as RA6 and PLL
OSC = ECIOSWPLL	EC-OSC2 as RA6 and SW PLL
OSC = HSSWPLL	HS with SW PLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

ECCP MUX:

ECCPMX = PORTH	Multiplexed with RH7:4
ECCPMX = PORTE	Multiplexed with RE6:3

CCP2 MUX:

CCP2MX = PORTBE	Multiplexed with RB3 or RE7
CCP2MX = PORTC	Multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

Address Bus Width Select bits:

ADDRBW = ADDR8BIT	8-bit Address Bus
ADDRBW = ADDR12BIT	12-bit Address Bus
ADDRBW = ADDR16BIT	16-bit Address Bus
ADDRBW = ADDR20BIT	20-bit Address Bus

Data Bus Width Select bit:

DATABW = DATA8BIT	8-bit External Bus mode
DATABW = DATA16BIT	16-bit External Bus mode

External Bus Data Wait Enable bit:

WAIT = ON	Wait selections for table reads and table writes are determined by the WAIT1:WAIT0 bits
WAIT = OFF	Wait selections are unavailable for table reads and table writes

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

ECCP MUX bit:

ECCPMX = PORTH	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RH7, RH6, RH5 and RH4 respectively
ECCPMX = PORTE	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RE6, RE5, RE4 and RE3 respectively

CCP2 MUX bit:

CCP2MX = PORTBE	ECCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

Address Bus Width Select bits:

ADDRBW = ADDR8BIT	8-bit Address Bus
ADDRBW = ADDR12BIT	12-bit Address Bus
ADDRBW = ADDR16BIT	16-bit Address Bus
ADDRBW = ADDR20BIT	20-bit Address Bus

Data Bus Width Select bit:

DATABW = DATA8BIT	8-bit External Bus mode
DATABW = DATA16BIT	16-bit External Bus mode

External Bus Data Wait Enable bit:

WAIT = ON	Wait selections for table reads and table writes are determined by the WAIT1:WAIT0 bits
WAIT = OFF	Wait selections are unavailable for table reads and table writes

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

ECCP MUX bit:

ECCPMX = PORTH	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RH7, RH6, RH5 and RH4 respectively
ECCPMX = PORTE	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RE6, RE5, RE4 and RE3 respectively

CCP2 MUX bit:

CCP2MX = PORTBE	ECCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Code Protection bit Block 4:

CP4 = ON	Block 4 (010000-013FFFh) code-protected
CP4 = OFF	Block 4 (010000-013FFFh) not code-protected

Code Protection bit Block 5:

CP5 = ON	Block 5 (014000-017FFFh) code-protected
CP5 = OFF	Block 5 (014000-017FFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Write Protection bit Block 4:

WRT4 = ON	Block 4 (010000-013FFFh) write-protected
WRT4 = OFF	Block 4 (010000-013FFFh) not write-protected

Write Protection bit Block 5:

WRT5 = ON	Block 5 (014000-017FFFh) write-protected
WRT5 = OFF	Block 5 (014000-017FFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 4:

EBTR4 = ON	Block 4 (010000-013FFFh) protected from table reads executed in other blocks
EBTR4 = OFF	Block 4 (010000-013FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 5:

EBTR5 = ON	Block 5 (014000-017FFFh) protected from table reads executed in other blocks
EBTR5 = OFF	Block 5 (014000-017FFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Oscillator Selection bits:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC with OSC2 as divide by 4 clock out
OSC = EC	EC with OSC2 as divide by 4 clock out
OSC = ECIO	EC with OSC2 as RA6
OSC = HSPLL	HS with HW enabled 4xPLL
OSC = RCIO	RC with OSC2 as RA6
OSC = ECIOPLL	EC with OSC2 as RA6 and HW enabled 4xPLL
OSC = ECIOSWPLL	EC with OSC2 as RA6 and SW enabled 4xPLL
OSC = HSSWPLL	HS with SW enabled 4xPLL

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 20	2.0V

Watchdog Timer:

WDT = OFF	HW Disabled - SW Controlled
WDT = ON	HW Enabled - SW Disabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

MCLR Enable:

MCLRE = OFF	Disabled
MCLRE = ON	Enabled

CCP2 MUX bit:

CCP2MX = OFF	CCP2 input/output is multiplexed with RE7
CCP2MX = ON	CCP2 input/output is multiplexed with RC1

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Wait Enable bit:

WAIT = ON	Wait states for operations on external memory bus enabled
WAIT = OFF	Wait states for operations on external memory bus disabled

Data Bus Width Select bit:

BW = 8	8-bit external bus mode
BW = 16	16-bit external bus mode

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode, 12-bit Address mode
MODE = XM16	Extended Microcontroller mode, 16-bit Address mode
MODE = XM20	Extended Microcontroller mode, 20-bit Address mode

External Address Bus Shift Enable bit:

EASHFT = OFF	Address shifting disabled, address on external bus reflects the PC value
EASHFT = ON	Address shifting enabled, address on external bus is offset to start at 000000h

ECCPx MUX bit:

ECCPMX = ALTERNATE	ECCP1 outputs (P1B/P1C) are multiplexed with RH7 and RH6; ECCP3 outputs (P3B/P3C) are multiplexed with RH5 and RH4
ECCPMX = DEFAULT	ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Wait Enable bit:

WAIT = ON	Wait states for operations on external memory bus enabled
WAIT = OFF	Wait states for operations on external memory bus disabled

Data Bus Width Select bit:

BW = 8	8-bit external bus mode
BW = 16	16-bit external bus mode

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode, 12-bit Address mode
MODE = XM16	Extended Microcontroller mode, 16-bit Address mode
MODE = XM20	Extended Microcontroller mode, 20-bit Address mode

External Address Bus Shift Enable bit:

EASHFT = OFF	Address shifting disabled, address on external bus reflects the PC value
EASHFT = ON	Address shifting enabled, address on external bus is offset to start at 000000h

ECCPx MUX bit:

ECCPMX = ALTERNATE	ECCP1 outputs (P1B/P1C) are multiplexed with RH7 and RH6; ECCP3 outputs (P3B/P3C) are multiplexed with RH5 and RH4
ECCPMX = DEFAULT	ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

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Oscillator Selection:

OSC = LP	LP
OSC = XT	XT
OSC = HS	HS
OSC = RC	RC
OSC = EC	EC-OSC2 as Clock Out
OSC = ECIO	EC-OSC2 as RA6
OSC = HSPLL	HS-PLL Enabled
OSC = RCIO	RC-OSC2 as RA6

Osc. Switch Enable:

OSCS = ON	Enabled
OSCS = OFF	Disabled

Power-up Timer:

PWRT = ON	Enabled
PWRT = OFF	Disabled

Brown-out Reset:

BOR = OFF	Disabled
BOR = ON	Enabled

Brown-out Voltage:

BORV = 45	4.5V
BORV = 42	4.2V
BORV = 27	2.7V
BORV = 25	2.5V

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128

Processor Mode Selection:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

CCP2 MUX:

CCP2MUX = OFF	Disabled
CCP2MUX = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Low Voltage ICSP:

LVP = OFF	Disabled
LVP = ON	Enabled

Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Code Protection Block 0:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Code Protection Block 1:

CP1 = ON	Enabled
CP1 = OFF	Disabled

Code Protection Block 2:

CP2 = ON	Enabled
CP2 = OFF	Disabled

Code Protection Block 3:

CP3 = ON	Enabled
CP3 = OFF	Disabled

Code Protection Block 4:

CP4 = ON	Enabled
CP4 = OFF	Disabled

Code Protection Block 5:

CP5 = ON	Enabled
CP5 = OFF	Disabled

Code Protection Block 6:

CP6 = ON	Enabled
CP6 = OFF	Disabled

Code Protection Block 7:

CP7 = ON	Enabled
CP7 = OFF	Disabled

Boot Block Code Protection:

CPB = ON	Enabled
CPB = OFF	Disabled

Data EEPROM Code Protection:

CPD = ON	Enabled
CPD = OFF	Disabled

Write Protection Block 0:

WRT0 = ON	Enabled
WRT0 = OFF	Disabled

Write Protection Block 1:

WRT1 = ON	Enabled
WRT1 = OFF	Disabled

Write Protection Block 2:

WRT2 = ON	Enabled
WRT2 = OFF	Disabled

Write Protection Block 3:

WRT3 = ON	Enabled
WRT3 = OFF	Disabled

Write Protection Block 4:

WRT4 = ON	Enabled
WRT4 = OFF	Disabled

Write Protection Block 5:

WRT5 = ON	Enabled
WRT5 = OFF	Disabled

Write Protection Block 6:

WRT6 = ON	Enabled
WRT6 = OFF	Disabled

Write Protection Block 7:

WRT7 = ON	Enabled
WRT7 = OFF	Disabled

Boot Block Write Protection:

WRTB = ON	Enabled
WRTB = OFF	Disabled

Configuration Register Write Protection:

WRTC = ON	Enabled
WRTC = OFF	Disabled

Data EEPROM Write Protection:

WRTD = ON	Enabled
WRTD = OFF	Disabled

Table Read Protection Block 0:

EBTR0 = ON	Enabled
EBTR0 = OFF	Disabled

Table Read Protection Block 1:

EBTR1 = ON	Enabled
EBTR1 = OFF	Disabled

Table Read Protection Block 2:

EBTR2 = ON	Enabled
EBTR2 = OFF	Disabled

Table Read Protection Block 3:

EBTR3 = ON	Enabled
EBTR3 = OFF	Disabled

Table Read Protection Block 4:

EBTR4 = ON	Enabled
EBTR4 = OFF	Disabled

Table Read Protection Block 5:

EBTR5 = ON	Enabled
EBTR5 = OFF	Disabled

Table Read Protection Block 6:

EBTR6 = ON	Enabled
EBTR6 = OFF	Disabled

Table Read Protection Block 7:

EBTR7 = ON	Enabled
EBTR7 = OFF	Disabled

Boot Block Table Read Protection:

EBTRB = ON	Enabled
EBTRB = OFF	Disabled

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Oscillator Selection bits:

OSC = LP	LP oscillator
OSC = XT	XT oscillator
OSC = HS	HS oscillator
OSC = RC	External RC oscillator, CLKO function on RA6
OSC = EC	EC oscillator, CLKO function on RA6
OSC = ECIO6	EC oscillator, port function on RA6
OSC = HSPLL	HS oscillator, PLL enabled (Clock Frequency = 4 x FOSC1)
OSC = RCIO6	External RC oscillator, port function on RA6
OSC = INTIO67	Internal oscillator block, port function on RA6 and RA7
OSC = INTIO7	Internal oscillator block, CLKO function on RA6, port function on RA7

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Internal/External Oscillator Switchover bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Power-up Timer Enable bit:

PWRT = ON	PWRT enabled
PWRT = OFF	PWRT disabled

Brown-out Reset Enable bits:

BOREN = OFF	Brown-out Reset disabled in hardware and software
BOREN = ON	Brown-out Reset enabled and controlled by software (SBOREN is enabled)
BOREN = NOSLP	Brown-out Reset enabled in hardware only and disabled in Sleep mode (SBOREN is disabled)
BOREN = SBORDIS	Brown-out Reset enabled in hardware only (SBOREN is disabled)

Brown-out Voltage bits:

BORV = 0	Maximum setting
BORV = 1	
BORV = 2	
BORV = 3	Minimum setting

Watchdog Timer Enable bit:

WDT = OFF	WDT disabled (control is placed on the SWDTEN bit)
WDT = ON	WDT enabled

Watchdog Timer Postscale Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Processor Data Memory Mode Select bits:

MODE = EM	Extended Microcontroller mode
MODE = MPB	Microprocessor with Boot Block mode
MODE = MP	Microprocessor mode
MODE = MC	Microcontroller mode

Address Bus Width Select bits:

ADDRBW = ADDR8BIT	8-bit Address Bus
ADDRBW = ADDR12BIT	12-bit Address Bus
ADDRBW = ADDR16BIT	16-bit Address Bus
ADDRBW = ADDR20BIT	20-bit Address Bus

Data Bus Width Select bit:

DATABW = DATA8BIT	8-bit External Bus mode
DATABW = DATA16BIT	16-bit External Bus mode

External Bus Data Wait Enable bit:

WAIT = ON	Wait selections for table reads and table writes are determined by the WAIT1:WAIT0 bits
WAIT = OFF	Wait selections are unavailable for table reads and table writes

MCLR Pin Enable bit:

MCLRE = OFF	RG5 input pin enabled; MCLR disabled
MCLRE = ON	MCLR pin enabled; RG5 input pin disabled

Low-Power Timer1 Oscillator Enable bit:

LPT1OSC = OFF	Timer1 configured for higher power operation
LPT1OSC = ON	Timer1 configured for low-power operation

ECCP MUX bit:

ECCPMX = PORTH	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RH7, RH6, RH5 and RH4 respectively
ECCPMX = PORTE	ECCP1/3 (P1B/P1C/P3B/P3C) are multiplexed onto RE6, RE5, RE4 and RE3 respectively

CCP2 MUX bit:

CCP2MX = PORTBE	ECCP2 is multiplexed with RB3 in Extended Microcontroller, Microprocessor or Microprocessor with Boot Block mode. Or with RE7 in Microcontroller mode.
CCP2MX = PORTC	ECCP2 input/output is multiplexed with RC1

Stack Full/Underflow Reset Enable bit:

STVREN = OFF	Stack full/underflow will not cause Reset
STVREN = ON	Stack full/underflow will cause Reset

Single-Supply ICSP Enable bit:

LVP = OFF	Single-Supply ICSP disabled
LVP = ON	Single-Supply ICSP enabled

Boot Block Size Select bits:

BBSIZ = BB2K	1K word (2 Kbytes) Boot Block size
BBSIZ = BB4K	2K words (4 Kbytes) Boot Block size
BBSIZ = BB8K	4K words (8 Kbytes) Boot Block size

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled, RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled, RB6 and RB7 configured as general purpose I/O pins

Code Protection bit Block 0:

CP0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) code-protected
CP0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not code-protected

Code Protection bit Block 1:

CP1 = ON	Block 1 (004000-007FFFh) code-protected
CP1 = OFF	Block 1 (004000-007FFFh) not code-protected

Code Protection bit Block 2:

CP2 = ON	Block 2 (008000-00BFFFh) code-protected
CP2 = OFF	Block 2 (008000-00BFFFh) not code-protected

Code Protection bit Block 3:

CP3 = ON	Block 3 (00C000-00FFFFh) code-protected
CP3 = OFF	Block 3 (00C000-00FFFFh) not code-protected

Code Protection bit Block 4:

CP4 = ON	Block 4 (010000-013FFFh) code-protected
CP4 = OFF	Block 4 (010000-013FFFh) not code-protected

Code Protection bit Block 5:

CP5 = ON	Block 5 (014000-017FFFh) code-protected
CP5 = OFF	Block 5 (014000-017FFFh) not code-protected

Code Protection bit Block 6:

CP6 = ON	Block 6 (01BFFF-018000h) code-protected
CP6 = OFF	Block 6 (01BFFF-018000h) not code-protected

Code Protection bit Block 7:

CP7 = ON	Block 7 (01C000-01FFFFh) code-protected
CP7 = OFF	Block 7 (01C000-01FFFFh) not code-protected

Boot Block Code Protection bit:

CPB = ON	Boot Block (000000-0007FFh) code-protected
CPB = OFF	Boot Block (000000-0007FFh) not code-protected

Data EEPROM Code Protection bit:

CPD = ON	Data EEPROM code-protected
CPD = OFF	Data EEPROM not code-protected

Write Protection bit Block 0:

WRT0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) write-protected
WRT0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not write-protected

Write Protection bit Block 1:

WRT1 = ON	Block 1 (004000-007FFFh) write-protected
WRT1 = OFF	Block 1 (004000-007FFFh) not write-protected

Write Protection bit Block 2:

WRT2 = ON	Block 2 (008000-00BFFFh) write-protected
WRT2 = OFF	Block 2 (008000-00BFFFh) not write-protected

Write Protection bit Block 3:

WRT3 = ON	Block 3 (00C000-00FFFFh) write-protected
WRT3 = OFF	Block 3 (00C000-00FFFFh) not write-protected

Write Protection bit Block 4:

WRT4 = ON	Block 4 (010000-013FFFh) write-protected
WRT4 = OFF	Block 4 (010000-013FFFh) not write-protected

Write Protection bit Block 5:

WRT5 = ON	Block 5 (014000-017FFFh) write-protected
WRT5 = OFF	Block 5 (014000-017FFFh) not write-protected

Write Protection bit Block 6:

WRT6 = ON	Block 6 (01BFFF-018000h) write-protected
WRT6 = OFF	Block 6 (01BFFF-018000h) not write-protected

Write Protection bit Block 7:

WRT7 = ON	Block 7 (01C000-01FFFFh) write-protected
WRT7 = OFF	Block 7 (01C000-01FFFFh) not write-protected

Boot Block Write Protection bit:

WRTB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) write-protected
WRTB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not write-protected

Configuration Register Write Protection bit:

WRTC = ON	Configuration registers (300000-3000FFh) write-protected
WRTC = OFF	Configuration registers (300000-3000FFh) not write-protected

Data EEPROM Write Protection bit:

WRTD = ON	Data EEPROM write-protected
WRTD = OFF	Data EEPROM not write-protected

Table Read Protection bit Block 0:

EBTR0 = ON	Block 0 (000800, 001000 or 002000-003FFFh) protected from table reads executed in other blocks
EBTR0 = OFF	Block 0 (000800, 001000 or 002000-003FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 1:

EBTR1 = ON	Block 1 (004000-007FFFh) protected from table reads executed in other blocks
EBTR1 = OFF	Block 1 (004000-007FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 2:

EBTR2 = ON	Block 2 (008000-00BFFFh) protected from table reads executed in other blocks
EBTR2 = OFF	Block 2 (008000-00BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 3:

EBTR3 = ON	Block 3 (00C000-00FFFFh) protected from table reads executed in other blocks
EBTR3 = OFF	Block 3 (00C000-00FFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 4:

EBTR4 = ON	Block 4 (010000-013FFFh) protected from table reads executed in other blocks
EBTR4 = OFF	Block 4 (010000-013FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 5:

EBTR5 = ON	Block 5 (014000-017FFFh) protected from table reads executed in other blocks
EBTR5 = OFF	Block 5 (014000-017FFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 6:

EBTR6 = ON	Block 6 (018000-01BFFFh) protected from table reads executed in other blocks
EBTR6 = OFF	Block 6 (018000-01BFFFh) not protected from table reads executed in other blocks

Table Read Protection bit Block 7:

EBTR7 = ON	Block 7 (01C000-01FFFFh) protected from table reads executed in other blocks
EBTR7 = OFF	Block 7 (01C000-01FFFFh) not protected from table reads executed in other blocks

Boot Block Table Read Protection bit:

EBTRB = ON	Boot Block (000000-007FFF, 000FFF or 001FFFh) protected from table reads executed in other blocks
EBTRB = OFF	Boot Block (000000-007FFF, 000FFF or 001FFFh) not protected from table reads executed in other blocks

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Background Debugger Enable bit:

DEBUG = ON	Background debugger enabled; RB6 and RB7 are dedicated to In-Circuit Debug
DEBUG = OFF	Background debugger disabled; RB6 and RB7 configured as general purpose I/O pins

Extended Instruction Set Enable bit:

XINST = OFF	Instruction set extension and Indexed Addressing mode disabled (Legacy mode)
XINST = ON	Instruction set extension and Indexed Addressing mode enabled

Stack Overflow/Underflow Reset Enable bit:

STVREN = OFF	Reset on stack overflow/underflow disabled
STVREN = ON	Reset on stack overflow/underflow enabled

Watchdog Timer Enable bit:

WDTEN = OFF	WDT disabled (control is placed on SWDTEN bit)
WDTEN = ON	WDT enabled

Code Protection bit:

CP0 = ON	Program memory is code-protected
CP0 = OFF	Program memory is not code-protected

Fail-Safe Clock Monitor Enable bit:

FCMEN = OFF	Fail-Safe Clock Monitor disabled
FCMEN = ON	Fail-Safe Clock Monitor enabled

Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit:

IESO = OFF	Two-Speed Start-up disabled
IESO = ON	Two-Speed Start-up enabled

Default/Reset System Clock Select bit:

FOSC2 = OFF	INTRC enabled as system clock when OSCCON<1:0> = 00
FOSC2 = ON	Clock selected by FOSC1:FOSC0 as system clock is enabled when OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, PLL enabled and under software control
FOSC = EC	EC oscillator, CLKO function on OSC2
FOSC = ECPLL	EC oscillator, PLL enabled and under software control, CLK function on OSC2

Watchdog Timer Postscaler Select bits:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Wait Enable bit:

WAIT = ON	Wait states for operations on external memory bus enabled
WAIT = OFF	Wait states for operations on external memory bus disabled

Data Bus Width Select bit:

BW = 8	8-bit external bus mode
BW = 16	16-bit external bus mode

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode, 12-bit Address mode
MODE = XM16	Extended Microcontroller mode, 16-bit Address mode
MODE = XM20	Extended Microcontroller mode, 20-bit Address mode

External Address Bus Shift Enable bit:

EASHFT = OFF	Address shifting disabled, address on external bus reflects the PC value
EASHFT = ON	Address shifting enabled, address on external bus is offset to start at 000000h

ECCPx MUX bit:

ECCPMX = ALTERNATE	ECCP1 outputs (P1B/P1C) are multiplexed with RH7 and RH6; ECCP3 outputs (P3B/P3C) are multiplexed with RH5 and RH4
ECCPMX = DEFAULT	ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3

ECCP2 MUX bit:

CCP2MX = ALTERNATE	ECCP2/P2A is multiplexed with RE7 in Microcontroller mode or with RB3 in Extended Microcontroller mode
CCP2MX = DEFAULT	ECCP2/P2A is multiplexed with RC1

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

Data Bus Width Select:

BW = 8	8-bit external bus
BW = 16	16-bit external bus

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode - 12-bit Address mode
MODE = XM16	Extended Microcontroller mode - 16-bit Address mode
MODE = XM20	Extended Microcontroller mode - 20-bit Address mode

External Address Bus Shift Enable:

EASHFT = OFF	External bus reflects PC value
EASHFT = ON	External bus starts at 000000h

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

Data Bus Width Select:

BW = 8	8-bit external bus
BW = 16	16-bit external bus

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode - 12-bit Address mode
MODE = XM16	Extended Microcontroller mode - 16-bit Address mode
MODE = XM20	Extended Microcontroller mode - 20-bit Address mode

External Address Bus Shift Enable:

EASHFT = OFF	External bus reflects PC value
EASHFT = ON	External bus starts at 000000h

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

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Background Debugger Enable:

DEBUG = ON	Enabled
DEBUG = OFF	Disabled

Extended Instruction Set Enable:

XINST = OFF	Disabled
XINST = ON	Enabled

Stack Overflow Reset:

STVR = OFF	Disabled
STVR = ON	Enabled

Watchdog Timer:

WDT = OFF	Disabled
WDT = ON	Enabled

Code Protection:

CP0 = ON	Enabled
CP0 = OFF	Disabled

Fail-Safe Clock Monitor:

FCMEN = OFF	Disabled
FCMEN = ON	Enabled

Internal/External Switch Over:

IESO = OFF	Disabled
IESO = ON	Enabled

Default/Reset System Clock Select Bit:

FOSC2 = OFF	INTRC as system clock when OSCCON<1:0> = 00
FOSC2 = ON	FOSC<1:0> selects system clock for OSCCON<1:0> = 00

Oscillator Selection bits:

FOSC = HS	HS oscillator
FOSC = HSPLL	HS oscillator, Software Controlled PLL
FOSC = EC	External Clock
FOSC = ECPLL	External Clock, Software Controlled PLL

Watchdog Postscaler:

WDTPS = 1	1:1
WDTPS = 2	1:2
WDTPS = 4	1:4
WDTPS = 8	1:8
WDTPS = 16	1:16
WDTPS = 32	1:32
WDTPS = 64	1:64
WDTPS = 128	1:128
WDTPS = 256	1:256
WDTPS = 512	1:512
WDTPS = 1024	1:1024
WDTPS = 2048	1:2048
WDTPS = 4096	1:4096
WDTPS = 8192	1:8192
WDTPS = 16384	1:16384
WDTPS = 32768	1:32768

External Bus Data Wait:

WAIT = ON	Enabled
WAIT = OFF	Disabled

Data Bus Width Select:

BW = 8	8-bit external bus
BW = 16	16-bit external bus

Processor Mode Selection:

MODE = MM	Microcontroller mode - External bus disabled
MODE = XM12	Extended Microcontroller mode - 12-bit Address mode
MODE = XM16	Extended Microcontroller mode - 16-bit Address mode
MODE = XM20	Extended Microcontroller mode - 20-bit Address mode

External Address Bus Shift Enable:

EASHFT = OFF	External bus reflects PC value
EASHFT = ON	External bus starts at 000000h

Ethernet LED Enable:

ETHLED = OFF	Disabled
ETHLED = ON	Enabled

ECCP MUX:

ECCPMX = OFF	Disabled
ECCPMX = ON	Enabled

CCP2 MUX:

CCP2MX = OFF	Disabled
CCP2MX = ON	Enabled

NOTES:

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