



PIC16C55X(A)

Errata Sheet for the PIC16C55X(A) Rev. A Data Sheet

The PIC16C55X(A) (Rev. A) parts you received conform functionally to the PIC16C55X(A) preliminary data sheet (DS40143B), except for the anomalies described below.

- **Module:**
Reset
- **Description:**
Power-up Timer stays enabled regardless of the PWRTE setting (bit 3 of configuration word).
- **Workaround:**
Clear reserved bit 6 of the configuration word to 0 during programming. In the MPLAB™ programmer window, this bit is listed as Brown Out Detect. This will allow PWRTE to function correctly.

Clarifications/Corrections to the Data Sheet:

The PIC16C55X(A) Data Sheet (DS40143B), Table 7-2, calls out the incorrect crystals for the use with our PICmicro™. The table updated below lists the standard parallel cut versions.

FIGURE 7-1: CONFIGURATION WORD

CP1	CP0 ¹	CP1	CP0 ¹	CP1	CP0 ¹	—	Reserved	CP1	CP0 ¹	PWRTE	WDTE	FOSC1	FOSC0	CONFIG REGISTER:	Address 2007h
bit13													bit0		
bit 13-8: CP<1:0> : Code protection bits ⁽¹⁾															
5-4: 11 = Code protection off															
10 = Upper half of program memory code protected															
01 = Upper 3/4th of program memory code protected															
00 = All memory is code protected															
bit 7: Unimplemented : Read as '1'															
bit 6: Reserved : Do not use															
bit 3: PWRTE : Power-up Timer Enable bit															
1 = PWRT disabled															
0 = PWRT enabled															
bit 2: WDTE : Watchdog Timer Enable bit															
1 = WDT enabled															
0 = WDT disabled															
bit 1-0: FOSC1:FOSC0 : Oscillator Selection bits															
11 = RC oscillator															
10 = HS oscillator															
01 = XT oscillator															
00 = LP oscillator															
 Note 1: All of the CP1:CP0 pairs have to be given the same value to enable the code protection scheme listed.															

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TABLE 7-2: CAPACITOR SELECTION FOR CRYSTAL OSCILLATOR (PRELIMINARY)

Mode	Freq	OSC1(C1)	OSC2(C2)
LP	32 kHz	68 - 100 pF	68 - 100 pF
	200 kHz	15 - 30 pF	15 - 30 pF
XT	100 kHz	68 - 150 pF	150 - 200 pF
	2 MHz	15 - 30 pF	15 - 30 pF
	4 MHz	15 - 30 pF	15 - 30 pF
HS	8 MHz	15 - 30 pF	15 - 30 pF
	10 MHz	15 - 30 pF	15 - 30 pF
	20 MHz	15 - 30 pF	15 - 30 pF

Higher capacitance increases the stability of the oscillator but also increases the start-up time. These values are for design guidance only. Rs may be required in HS mode as well as XT mode to avoid overdriving crystals with low drive level specification. Since each crystal has its own characteristics, the user should consult the crystal manufacturer for appropriate values of external components.

Crystals to be Characterized:

32.768 kHz	Epson C-001R32.768K-A	± 20 PPM
100 kHz	Epson C-2 100.00 KC-P	± 20 PPM
200 kHz	STD XTL 200.000 kHz	± 20 PPM
4.0 MHz	ECS ECS-40-20-4	± 50 PPM
20.0 MHz	ECS ECS-200-20-4	± 50 PPM

Note the following details of the code protection feature on PICmicro® MCUs.

- The PICmicro family meets the specifications contained in the Microchip Data Sheet.
- Microchip believes that its family of PICmicro microcontrollers is one of the most secure products 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 PICmicro microcontroller in a manner outside the operating specifications contained in the data sheet. The person doing so may be 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 product.

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