



MICROCHIP PIC18F87J10 FAMILY

PIC18F87J10 Family Data Sheet Errata

Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS39663D), the following clarifications and corrections should be noted. Any silicon issues related to the PIC18F87J10 family will be reported in a separate silicon errata. Please check the Microchip web site for any existing issues.

The following errata apply only to PIC18F87J10 Family devices with these Device/Revision IDs:

Part Number	Device ID	Revision ID
PIC18F65J10	0001 0101 001	x xxxx
PIC18F65J15	0001 0101 010	x xxxx
PIC18F66J10	0001 0101 011	x xxxx
PIC18F66J15	0001 0101 100	x xxxx
PIC18F67J10	0001 0101 101	x xxxx
PIC18F85J10	0001 0101 111	x xxxx
PIC18F85J15	0001 0111 000	x xxxx
PIC18F86J10	0001 0111 001	x xxxx
PIC18F86J15	0001 0111 010	x xxxx
PIC18F87J10	0001 0111 011	x xxxx

The Device IDs (DEVID1 and DEVID2) are located at addresses 3FFFFEh:3FFFFFh in the device's configuration space. They are shown in binary in the format "DEVID2 DEVID1".

1. Module: Electrical Specifications (AC Characteristics)

Table 26-8: AC Characteristics: Internal RC Accuracy incorrectly specifies the frequency tolerance of the INTRC oscillator.

When clocked from the INTRC clock source, this clock source affects the following:

- Power-up Timer (PWRT)
- Watchdog Timer (WDT)
- Fail-Safe Clock Monitor (FSCM)
- Two Speed Start-up (IESO)
- Controller Speed

The INTRC clock source cannot be adjusted. The table is replaced as shown in Table 26-8.

**TABLE 26-8: AC CHARACTERISTICS: INTERNAL RC ACCURACY
PIC18F87J10 FAMILY (INDUSTRIAL)**

Param No.	Characteristic	Min	Typ	Max	Units	Conditions
	INTRC Accuracy (31 kHz Nominal)	21.88	—	40.63	kHz	-40°C to +85°C, VDD = 2.0-3.3V

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2. Module: Electrical Characteristics (Row Erase Time)

Table 26-1 (Memory Programming Requirements) incorrectly specifies the self-timed page erase time. The table is corrected, as indicated by the bold text, for the following parameters:

- Parameter D133A – Parameter added with the symbol TIW. This is the write time for 64 bytes.
- Parameter D133B – Values corrected and symbol changed to TIE. This is the erase time for 1,024 bytes.

TABLE 26-1: MEMORY PROGRAMMING REQUIREMENTS

DC CHARACTERISTICS			Standard Operating Conditions (unless otherwise stated) Operating temperature $-40^{\circ}\text{C} \leq T_A \leq +85^{\circ}\text{C}$ for industrial				
Param No.	Sym	Characteristic	Min	Typ [†]	Max	Units	Conditions
Program Flash Memory							
D130	EP	Cell Endurance	100	1K	—	E/W	-40°C to $+85^{\circ}\text{C}$
D131	VPR	VDD for Read	V _{MIN}	—	3.6	V	V _{MIN} = Minimum operating voltage
D132B	VPEW	VDD for Self-Timed Write	V _{MIN}	—	3.6	V	V _{MIN} = Minimum operating voltage
D133A	TIW	Self-Timed Row Write Cycle Time	—	2.8	—	ms	
D133B	TIE	Self-Timed Page Erase Cycle Time	—	33.0	—	ms	
D134	TRETD	Characteristic Retention	20	—	—	Year	Provided no other specifications are violated
D135	IDDP	Supply Current during Programming	—	10	—	mA	
D1xxx	TWE	Writes per Erase Cycle	—	—	1		

† Data in "Typ" column is at 3.3V, 25°C unless otherwise stated. These parameters are for design guidance only and are not tested.

3. Module: Flash Program Memory Erase Sequence

In Section 6.4.1 "Flash Program Memory Erase Sequence", Step 7:

The CPU will stall for duration of the erase for TIE (see parameter D133B).

4. Module: Flash Program Memory Write Sequence

In Section 6.5.1 "Flash Program Memory Write Sequence", Step 12:

The CPU will stall for duration of the write for TIW (see parameter D133A).

REVISION HISTORY

Rev A Document (3/2007)

Initial release of this document. Data sheet clarification issue 1 (Electrical Specifications – AC Characteristics).

Rev B Document (5/2008)

Added data sheet clarification issue 2 (Electrical Specifications – Row Erase Time), 3 (Flash Program Memory Erase Sequence) and 4 (Flash Program Memory Write Sequence).

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NOTES:

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- Microchip is willing to work with the customer who is concerned about the integrity of their code.
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