



MICROCHIP

PIC16C58A → PIC16C58B Migration

DEVICE MIGRATIONS

This document is intended to describe the functional differences and the electrical specification differences that are present when migrating from one device to the next.

Note: Even though compatible devices are specified to be tested to the same electrical specification, the characteristics of the devices may be different from each other (due to process differences). For systems that were designed to the device specifications, these process differences should not cause any issues in the application. For systems that did not tightly meet the electrical specifications, the process differences may cause the device to behave differently in the application.

Table 1 shows the considerations that must be taken into account when migrating from the PIC16C58A to the PIC16C58B.

TABLE 1: PIC16C58A → PIC16C58B DIFFERENCES

Functional Differences				
No.	Difference	H/W	S/W	Prog.
1	Master Clear Filter added, PIC16C58B. See Electrical Specification #30.	✓	—	—
2	Code protection change, PIC16C58B now reads as 0 when code protect enabled.	—	—	✓
3	Programming algorithm change, PIC16C58B uses a new programming algorithm.	—	—	✓

Electrical Specification Differences										
Parm. No.	Sym.	Characteristic	PIC16C58A Data Sheet			PIC16C58B Data Sheet			Units	Conditions
			Min	Typ	Max	Min	Typ	Max		
	VDD	Supply Voltage XT, RC, and LP Options HS option	3.0 4.5	— —	6.25 5.5	3.0 4.5	— —	5.5 5.5	V V	
	IDD	Supply Current XT and RC Options HS Option HS Option LP Option, Commercial LP Option, Industrial	— — — — —	1.9 2.5 4.7 15 18	2.5 8.0 17 31 39	— — — — —	1.8 2.4 4.5 14 17	2.4 8.0 16 29 37	mA mA mA μA μA	FOSC=4.0MHz, VDD=5.5V FOSC=10.0MHz, VDD=5.5V FOSC=20.0MHz, VDD=5.5V FOSC=32kHz, VDD=3.0V WDT Disabled FOSC=32kHz, VDD=3.0V WDT Disabled
	IPD	Power-down Current Industrial	— —	5.0 0.3	14 5.0	— —	4.0 0.25	14 5.0	μA μA	VDD=3.0 WDT Enabled WDT Disabled
	VIL	Input Low Voltage I/O Ports	VSS	—	0.2VDD	VSS VSS	— —	0.8 .15VDD	V V	4.5V ≤ VDD ≤ 5.5V For all VDD
	VIH	Input High Voltage	2.0 0.2VDD+1V	— —	VDD VDD	2.0 0.25VDD+.8V	— —	VDD VDD	V V V V	4.0V ≤ VDD ≤ 5.5 For all VDD 4.5V ≤ VDD ≤ 5.5V Otherwise

NOTES:



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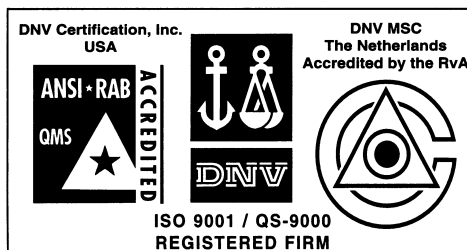
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