



**MICROCHIP**

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## PIC16C65B → PIC16CR65 Migration

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### DEVICE MIGRATIONS

This document is intended to describe and the electrical specification differences that are present when migrating from one device to the next. Table 1 shows electrical and timing differences.

**Note:** Even though compatible devices are specified to be tested to the same electrical specification, the device characteristics 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.

**Note:** While there are no functional or electrical changes to the device oscillator specifications, the user should verify that the device oscillator starts and performs as expected. Adjusting the loading capacitor values and/or the oscillator mode may be required.

**TABLE 1: PIC16C65B → PIC16CR65 SPECIFICATION DIFFERENCES**

Param No.	Symbol	Characteristic	PIC16C65B-04			PIC16CR65-04			Unit	
			Min	Typ†	Max	Min	Typ†	Max		
Core										
D005	VBOR	Brown-out Reset Voltage	3.65	—	4.35	<b>3.7</b>	—	<b>4.3</b>	V	
D022A	ΔIBOR	BOR module differential current	—	100	150	—	<b>350</b>	<b>425</b>	μA	
D150†	V <sub>OD</sub>	Open-Drain High Voltage on RA4	—	—	8.5	—	—	<b>8.5<sup>(1)</sup></b>	V	
SSP in SPI mode										
74	Tsch2diL, TscL2diL	Hold time of SDI data input to SCK edge	100	—	—	<b>50</b>	—	—	ns	
75	TdoR	SDO data output rise time	PIC16CXX	—	10	25	—	<b>10</b>	<b>25</b>	ns
			PIC16LCXX	—	20	45				ns
78	TscR	SCK output rise time (master mode)	PIC16CXX	—	10	25	—	<b>10</b>	<b>25</b>	ns
			PIC16LCXX	—	20	45				ns
80	Tsch2doV, TscL2doV	SDO data output valid after SCK edge	PIC16CXX	—	—	50	—	—	<b>50</b>	ns
			PIC16LCXX	—	—	100				ns
83	Tsch2ssH, TscL2ssH	SS ↑ after SCK edge	1.5TCY + 40	—	—	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	ns	

†Data in “Typ” column is at 5V, 25°C unless otherwise stated. These parameters are for design guidance only and are not tested.

**Note 1:** This specification has been changed since the last data sheet or errata was released as of 5/99.

**2:** This was not specified in the PIC16CR65 data sheet.

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**NOTES:**



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11/15/99



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