

# dsPIC30F2010

### dsPIC30F2010 Data Sheet Errata

## Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS70118**G**), the following clarifications and corrections should be noted. Any silicon issues related to the dsPIC30F2010 family will be reported in a separate silicon errata. Please check the Microchip website (www.microchip.com) for any existing issues.

# 1. Module: DC Temperature and Voltage Specifications

RAM Data Retention Voltage (Parameter DC12) in the DC Temperature and Voltage Specifications (Table 22-4 on page 148) has changed from 1.5V Typical to 1.75V Minimum. The following table shows this change in **Bold** text.

TABLE 22-4: DC TEMPERATURE AND VOLTAGE SPECIFICATIONS

DC CHARACTERISTICS			Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated) Operating temperature $-40^{\circ}\text{C} \le \text{TA} \le +85^{\circ}\text{C}$ for Industrial $-40^{\circ}\text{C} \le \text{TA} \le +125^{\circ}\text{C}$ for Extended					
Param No.	Symbol	Characteristic	Min	Typ <sup>(1)</sup>	Max	Units	Conditions	
Operating Voltage <sup>(2)</sup>								
DC10	VDD	Supply Voltage	2.5	_	5.5	V	Industrial temperature	
DC11	VDD	Supply Voltage	3.0	_	5.5	V	Extended temperature	
DC12	VDR	RAM Data Retention Voltage <sup>(3)</sup>	1.75	_	_	V		
DC16	VPOR	VDD Start Voltage to ensure internal Power-on Reset signal	_	Vss	_	V		
DC17	SVDD	VDD Rise Rate to ensure internal Power-on Reset signal	0.05			V/ms	0-5V in 0.1 sec 0-3V in 60 ms	

- **Note 1:** Data in "Typ" column is at 5V, 25°C unless otherwise stated. Parameters are for design guidance only and are not tested.
  - 2: These parameters are characterized but not tested in manufacturing.
  - 3: This is the limit to which VDD can be lowered without losing RAM data.

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# 2. Module: AC Characteristics: RC Accuracy

Internal RC Accuracy Parameters OS62 and OS64 are removed from the AC Characteristics (Table 22-17 on page 158). Parameter OS63 has been expanded to reflect multiple Max values for different temperatures, as shown by the **Bold** text below.

#### TABLE 22-17: AC CHARACTERISTICS: INTERNAL RC ACCURACY

AC CHA	RACTERISTICS	Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated) Operating temperature $ -40^{\circ}C \leq TA \leq +85^{\circ}C \text{ for Industrial} \\ -40^{\circ}C \leq TA \leq +125^{\circ}C \text{ for Extended} $							
Param No.	Characteristic	Min	Тур	Max	Units	Conditions			
	Internal FRC Accuracy @ FRC Freq. = 7.37 MHz <sup>(1)</sup>								
OS63	FRC	_	_	<u>+</u> 2.00	%	-40°C ≤ TA ≤ +85°C	VDD = 3.0-5.5V		
		_	-	<u>+</u> 5.00	%	-40°C ≤ TA ≤ +125°C	VDD = 3.0-5.5V		

Note 1: Frequency calibrated at 7.372 MHz ±2%, 25°C and 5V. TUN <3:0> bits can be used to compensate for temperature drift.

# 3. Module: AC Characteristics: Internal RC Accuracy

Internal RC Accuracy Parameter OS65 has been expanded in the AC Characteristics (Table 22-18 on page 158) to reflect multiple Min and Max values for different temperatures, as shown by the **Bold** text below.

#### **TABLE 22-18: INTERNAL RC ACCURACY**

AC CHA	RACTERISTICS	Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated) Operating temperature $-40^{\circ}\text{C} \le \text{TA} \le +85^{\circ}\text{C}$ for Industrial $-40^{\circ}\text{C} \le \text{TA} \le +125^{\circ}\text{C}$ for Extended						
Param No.	Characteristic	Min	Тур	Max	Units	Conditions		
	LPRC @ Freq. = 512 kHz <sup>(1)</sup>							
OS65A		-50	_	+50	%	V <sub>DD</sub> = 5.0V		
OS65B		-60	_	+60	%	V <sub>DD</sub> = 3.3V		
OS65C		-70	_	+70	%	V <sub>DD</sub> = 2.5V		

Note 1: Change of LPRC frequency as VDD changes.

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### **REVISION HISTORY**

Rev A Document (1/2008)

Initial release of this document.

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