

dsPIC30F4011/4012 Data Sheet Errata

Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS70135E), the following clarifications and corrections should be noted. Any silicon issues related to the dsPIC30F4011/4012 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 24-4 on page 172) has changed from 1.5V Typical to 1.75V Minimum. The following table shows this change in **Bold** text.

TABLE 24-4: DC TEMPERATURE AND VOLTAGE SPECIFICATIONS

DC CHARACTERISTICS			Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated) Operating temperature -40°C ≤ TA ≤ +85°C for Industrial -40°C ≤ TA ≤ +125°C for Extended				
Param No.	Symbol	Characteristic	Min	Typ ⁽¹⁾	Max	Units	Conditions
Operating Voltage⁽²⁾							
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 ⁽³⁾	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 24-17 on page 183). Parameter OS63 has been expanded to reflect multiple Max values for different temperatures, as shown by the **Bold** text below.

TABLE 23-17: AC CHARACTERISTICS: INTERNAL RC ACCURACY

AC CHARACTERISTICS		Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated)					
		Operating temperature -40°C ≤ TA ≤ +85°C for Industrial -40°C ≤ TA ≤ +125°C for Extended					
Param No.	Characteristic	Min	Typ	Max	Units	Conditions	
Internal FRC Accuracy @ FRC Freq. = 7.37 MHz⁽¹⁾							
OS63	FRC	—	—	±2.00	%	-40°C ≤ TA ≤ +85°C	VDD = 3.0-5.5V
		—	—	±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 24-18 on page 183) to reflect multiple Min and Max values for different temperatures, as shown by the **Bold** text below.

TABLE 23-18: INTERNAL RC ACCURACY

AC CHARACTERISTICS		Standard Operating Conditions: 2.5V to 5.5V (unless otherwise stated) Operating temperature -40°C ≤ TA ≤ +85°C for Industrial -40°C ≤ TA ≤ +125°C for Extended				
Param No.	Characteristic	Min	Typ	Max	Units	Conditions
	LPRC @ Freq. = 512 kHz ⁽¹⁾					
OS65A		-50	—	+50	%	VDD = 5.0V
OS65B		-60	—	+60	%	VDD = 3.3V
OS65C		-70	—	+70	%	VDD = 2.5V

Note 1: Change of LPRC frequency as VDD changes.

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REVISION HISTORY

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