



Product Change Notification: SYST-14YAT0054

Date:

20-Jul-2026

Product Category:

8-Bit Microcontrollers

Notification Subject:

PIC16F17114/15/24/25/44/45 Silicon Errata and Datasheet Clarifications

Affected CPNs:

[SYST-14YAT0054_Affected_CPN_07202026.pdf](#)

[SYST-14YAT0054_Affected_CPN_07202026.csv](#)

Notification Text:

SYST-14YAT0054
Microchip has released a new Document for the PIC16F17114/15/24/25/44/45 Silicon Errata and Datasheet Clarifications of devices. If you are using one of these devices please read the document located at PIC16F17114/15/24/25/44/45 Silicon Errata and Datasheet Clarifications. Notification Status: Final Description of Change: Updated data sheet revision letter to 'D'; added silicon issues 1.7.1, 1.8.1, and 1.9.1. Impacts to Data Sheet: None Reason for Change: To Improve Productivity Change Implementation Status: Complete

Description of Change:

Updated data sheet revision letter to 'D'; added silicon issues 1.7.1, 1.8.1, and 1.9.1.

Impacts to Data Sheet: None

Reason for Change: To Improve Productivity

Change Implementation Status: Complete

Date Document Changes Effective: 20 Jul 2026

NOTE: Please be advised that this is a change to the document only the product has not been changed.

Markings to Distinguish Revised from Unrevised Devices: N/A

Attachments:

PIC16F17114/15/24/25/44/45 Silicon Errata and Datasheet Clarifications

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from

Affected Catalog Part Numbers (CPN)

PIC16F17144-E/6N

PIC16F17145-E/6N

PIC16F17124-E/7N

PIC16F17125-E/7N

PIC16F17114-E/SN

PIC16F17115-E/SN

PIC16F17114-E/P

PIC16F17115-E/P

PIC16F17124-E/P

PIC16F17125-E/P

PIC16F17124-E/SL

PIC16F17125-E/SL

PIC16F17124-E/ST

PIC16F17125-E/ST

PIC16F17144-E/SS

PIC16F17145-E/SS

PIC16F17144-E/SO

PIC16F17145-E/SO

PIC16F17144-E/P

PIC16F17145-E/P

PIC16F17114-E/MD

PIC16F17115-E/MD

PIC16F17144-I/6N

PIC16F17145-I/6N

PIC16F17124-I/7N

PIC16F17125-I/7N

PIC16F17114-I/SN

PIC16F17115-I/SN

PIC16F17114-I/P

Date: Sunday, July 19, 2026

PIC16F17115-I/P

PIC16F17124-I/P

PIC16F17125-I/P

PIC16F17124-I/SL

PIC16F17125-I/SL

PIC16F17124-I/ST

PIC16F17125-I/ST

PIC16F17144-I/SS

PIC16F17145-I/SS

PIC16F17144-I/SO

PIC16F17145-I/SO

PIC16F17144-I/P

PIC16F17145-I/P

PIC16F17114-I/MD

PIC16F17115-I/MD

PIC16F17144T-I/6N

PIC16F17145T-I/6N

PIC16F17124T-I/7N

PIC16F17125T-I/7N

PIC16F17114T-I/SN

PIC16F17115T-I/SN

PIC16F17124T-I/SL

PIC16F17125T-I/SL

PIC16F17124T-I/ST

PIC16F17125T-I/ST

PIC16F17144T-I/SS

PIC16F17145T-I/SS

PIC16F17144T-I/SO

PIC16F17145T-I/SO

PIC16F17114T-I/MD

PIC16F17115T-I/MD

PIC16F17144T-I/SS020

PIC16F17114/15/24/25/44/45 Silicon Errata and Data Sheet Clarifications

PIC16F17114/15/24/25/44/45



Introduction

The PIC16F17114/15/24/25/44/45 devices that you have received conform functionally to the current device data sheet (DS40002403D), except for the anomalies described in this document.

The silicon issues discussed in the following pages are for silicon revisions with the Device and Revision IDs listed in the table below.

The errata described in this document will be addressed in future revisions of the PIC16F17114/15/24/25/44/45 silicon.

Note: This document summarizes all silicon errata issues from all revisions of silicon, previous as well as current.

Table 1. Silicon Device Identification

Part Number	Device ID	Revision ID				
		B0	B2	B3	B4	D2
PIC16F17114	0x30DB	0xA040	0xA042	0xA043	0xA044	0xA0C2
PIC16F17115	0x30E2	0xA040	0xA042	0xA043	0xA044	0xA0C2
PIC16F17124	0x30DC	0xA040	0xA042	0xA043	0xA044	0xA0C2
PIC16F17125	0x30DE	0xA040	0xA042	0xA043	0xA044	0xA0C2
PIC16F17144	0x30DD	0xA040	0xA042	0xA043	0xA044	0xA0C2
PIC16F17145	0x30DF	0xA040	0xA042	0xA043	0xA044	0xA0C2



Important: Refer to the **Device/Revision ID** section in the device data sheet for more detailed information on Device Identification and Revision IDs for your specific device.

Silicon Issue Summary

Table 2. Silicon Issue Summary

Module	Feature	Item No.	Issue Summary	Affected Revisions				
				B0	B2	B3	B4	D2
Analog-to-Digital Converter with Computation (ADCC)	Double Sample Conversions	1.1.1	An Unexpected Acquisition Time is Added Between the First and Second Conversions	X				
	Acquisition Time	1.1.2	Acquisition time cannot be changed through either the ADACQ or ADPRE registers	X	X			
Comparator (CMP)	Comparator 2	1.2.1	Comparator 2 is not available on 8-pin devices	X				
Host Synchronous Serial Port (MSSP)	I ² C Start and Stop Interrupt Function	1.3.1	A race condition can cause the Start and/or Stop flags to be set when I ² C is enabled	X				
Configuration Words (CONFIG)	Sleep	1.4.1	Waking from Sleep may cause unexpected behavior	X				
Digital-to-Analog Converter (DAC)	DAC Auto Enable	1.5.1	Mid-band voltage spike at code 128 may occur when DACAUTOEN is enabled and the application is incrementing the DACxDATL register from 127 to 129	X	X			
Fixed Voltage Reference (FVR)	ADC Buffer	1.6.1	Power-down current (I_{PD}) for the ADC FVR Buffer may be higher than the current data sheet limits			X		
Charge Pump	CPON	1.7.1	The CPON Bits Incorrectly Default to OFF Mode	X	X	X	X	X
Timer1	Timer1 Gate Source	1.8.1	Changing the Timer1 Gate Source May Cause Unexpected Interrupts	X	X	X	X	
Capture/Compare/PWM (CCP)	Compare Toggle Mode	1.9.1	CCP Compare Toggle Output Mode Does Not Work as Expected	X	X	X	X	X
Note: Only those issues indicated in the last column apply to the current silicon revision.								

1. Silicon Errata Issues

NOTICE

This document summarizes all silicon errata issues from all revisions of silicon, previous and current. Only the issues indicated by the bold font in the following tables apply to the current silicon revision.

1.1. Module: Analog-to-Digital Converter with Computation (ADCC)

1.1.1. An Unexpected Acquisition Time is Added Between the First and Second Conversions

When enabling a Double Sample Conversion (DSEN = 1) with no precharge time (ADPRE = 0) and no acquisition time (ADACQ = 0), the maximum number of cycles of acquisition time is inserted prior to the second conversion. The first conversion will be performed as expected with no precharge time and no acquisition time. It is only between the first and second conversions where a maximum number of cycles of acquisition time are performed unexpectedly.

Work Around

Method 1:

Disable Double Sample Conversion (DSEN = 0) and perform two single conversions back to back.

Method 2:

If adding acquisition time is acceptable, then select no precharge time along with the desired acquisition time.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X							

1.1.2. Acquisition Time Cannot Be Changed through Either the ADACQ or the ADPRE Registers

ADC acquisition (sample) time cannot be modified by writing to either the ADPRE or ADACQ registers. Writes to the ADPRE or ADACQ registers will correctly delay the next conversion but will have no affect on increasing the actual sample time of the current conversion. For example, if the ADCRC is used as the clock source, the sample time will be nominally 3.33 μ s, regardless of the values in either of the ADACQ or ADPRE registers.

Work around

There is essentially no work around for increasing the sample times via the ADPRE or ADACQ registers; however, there are various work arounds and/or techniques that can be implemented to acquire a more accurate ADC measurement.

- If the ADC is using the F_{OSC}, reducing the clock speed at the time of measurement will increase the overall sampling time.
 - Use the NOSC/NDIV bits of OSCCON1 to reduce the oscillator speed
 - Adjust the ADCLK divider value to reduce the oscillator speed
 - Switch the ADC clock to the ADCRC
- The source input impedance (R_S) directly effects the amount of time it takes to charge the C_{HOLD} capacitor. Reducing the input impedance to a minimum will help reduce the sample time needed for the ADC measurement.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X	X						

1.2. Module: Comparator (CMP)**1.2.1. Comparator 2 Is Not Available**

Comparator 2 is not available on 8-pin devices.

Work around

None.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X							

1.3. Module: MSSP**1.3.1. The I²C Start and/or Stop Flags May Be Set When I²C Is Enabled**

When I²C is enabled, erroneous Start and/or Stop conditions may be detected. This can generate erroneous I²C interrupts, if enabled.

Work Around

Use the following procedure to correctly detect the Start and Stop conditions:

1. Disable the Start and Stop conditions interrupt functions.
2. Enable the I²C module.
3. Wait 250 ns + six instruction cycles ($F_{OSC}/4$).
4. Clear the Start and Stop conditions interrupt flags.
5. Enable the Start and Stop conditions interrupt functions, if used.

```

SSPxCON3bits.SCIE = 0;           // Disable Start condition interrupt
SSPxCON3bits.PCIE = 0;           // Disable Stop condition interrupt
SSPxCON1bits.SSPEN = 1;          // Enable I2C
Delay();                          // Wait for 250 ns + 6 instruction cycles ( $F_{OSC}/4$ )
PIRxbits.SSPxIF = 0;             // Clear the MSSP interrupt flag
SSPxCON3bits.SCIE = 1;           // Enable Start condition interrupt if used
SSPxCON3bits.PCIE = 1;           // Enable Stop condition interrupt if used

```

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X							

1.4. Module: Configuration Words (CONFIG)**1.4.1. Waking from Sleep May Cause Unexpected Behavior**

Waking from Sleep may cause unexpected behavior.

Work around

Do not use the SLEEP instruction. If clock switching is available and there is a need for reduced current consumption, switch to the slowest system clock.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X							

1.5. Module: Digital-to-Analog Converter (DAC)**1.5.1. Mid-band Voltage Spike at Code 128 May Occur When $\overline{\text{DACAUTOEN}}$ Is Enabled and the Application Is Incrementing the DACxDATL Register from 127 to 129**

When the $\overline{\text{DACAUTOEN}}$ bit is enabled, a voltage glitch on the DACxOUT pin may occur at code 128 when the application is incrementing the DACxDATL register from 127 to 129 and the alternate DACxOUT pin is either tied to GND or V_{DD} . If the alternate pin is tied to V_{DD} , the glitch will be positive; if the pin is tied to GND, the glitch will be negative.

Work around

None.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X	X						

1.6. Module: Fixed Voltage Reference (FVR)**1.6.1. Power-down Current (I_{PD}) for the ADC FVR Buffer May Be Higher than the Current Data Sheet Limits**

When using the ADC FVR Buffer as an ADC reference, the I_{PD} current may be higher than the current data sheet limits. The parameters for B3 silicon are as follows:

Param. No.	Sym.	Device Characteristics	Min.	Typ. [†]	Max. +85°C	Max. +125°C	Units	Conditions	
								V_{DD}	Note
D204	$I_{PD_FVR_BUF1}$	FVR Buffer 1 (ADC)	—	171	420	485	μA	3.0V	

Work around

None.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
		X					

1.7. Module: Charge Pump (CP)**1.7.1. The CPON Bits Incorrectly Default to OFF Mode**

The CPON bits incorrectly default to OFF mode (CPON = 00) instead of AUTO mode (CPON = 01) upon power-up or device Reset.

Work around

User software must configure the charge pump to operate in AUTO mode by writing '01' to the CPON bits of the CPCON register.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X	X	X	X	X			

1.8. Module: Timer1

1.8.1. Changing the Timer1 Gate Source May Cause Unexpected Interrupts

When a new value is written into the Timer1 Gate Source Select (GSS) bits of the TxGATE register, the TMRxGIF interrupt flag may be set unexpectedly. If the TMRxGIE bit is set, an unexpected interrupt will occur.

Work around

User software must clear the TMRxGIF bit immediately after writing the new value to the GSS bits.

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X	X	X	X				

1.9. Module: Capture/Compare/PWM Module (CCP)

1.9.1. CCP Compare Toggle Output Mode Does Not Work as Expected

The CCP module's Compare Toggle Output Mode (MODE[3:0] = 'b0001) does not work as expected. When the TMRx resource matches the value in the CCPRx registers, the output may toggle randomly or not at all.

Work Around

None

Affected Silicon Revisions

B0	B2	B3	B4	D2			
X	X	X	X	X			

2. Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (DS40002403D):

Note:

Corrections are shown in **bold**. Where possible, the original bold text formatting has been removed for clarity.

2.1. None

There are no known data sheet clarifications as of this publication date.

3. Appendix A: Revision History

Doc Rev.	Date	Comments
F	07/2026	Updated data sheet revision letter to 'D'; added silicon issues 1.7.1, 1.8.1, and 1.9.1.
E	01/2024	Added new silicon revision D2.
D	12/2023	Added new silicon revision B4.
C	08/2023	Added new silicon revision B3; updated data sheet revision letter to 'C'; added silicon issues 1.1.2, 1.5.1, and 1.6.1.
B	08/2022	Added new silicon revision B2; updated data sheet revision letter to 'B'; added silicon issue 1.4.1.
A	03/2022	Initial release of this document.

Microchip Information

Trademarks

The “Microchip” name and logo, the “M” logo, and other names, logos, and brands are registered and unregistered trademarks of Microchip Technology Incorporated or its affiliates and/or subsidiaries in the United States and/or other countries (“Microchip Trademarks”). Information regarding Microchip Trademarks can be found at <https://www.microchip.com/en-us/about/legal-information/microchip-trademarks>.

Legal Notice

This publication and the information herein may be used only with Microchip products, including to design, test, and integrate Microchip products with your application. Use of this information in any other manner violates these terms. Information regarding device applications is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. Contact your local Microchip sales office for additional support or, obtain additional support at www.microchip.com/en-us/support/design-help/client-support-services.

THIS INFORMATION IS PROVIDED BY MICROCHIP “AS IS”. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTIES RELATED TO ITS CONDITION, QUALITY, OR PERFORMANCE.

IN NO EVENT WILL MICROCHIP BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL LOSS, DAMAGE, COST, OR EXPENSE OF ANY KIND WHATSOEVER RELATED TO THE INFORMATION OR ITS USE, HOWEVER CAUSED, EVEN IF MICROCHIP HAS BEEN ADVISED OF THE POSSIBILITY OR THE DAMAGES ARE FORESEEABLE. TO THE FULLEST EXTENT ALLOWED BY LAW, MICROCHIP’S TOTAL LIABILITY ON ALL CLAIMS IN ANY WAY RELATED TO THE INFORMATION OR ITS USE WILL NOT EXCEED THE AMOUNT OF FEES, IF ANY, THAT YOU HAVE PAID DIRECTLY TO MICROCHIP FOR THE INFORMATION.

Use of Microchip devices in life support and/or safety applications is entirely at the buyer’s risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights unless otherwise stated.

Microchip Devices Code Protection Feature

Note the following details of the code protection feature on Microchip products:

- Microchip products meet the specifications contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is secure when used in the intended manner, within operating specifications, and under normal conditions.
- Microchip values and aggressively protects its intellectual property rights. Attempts to breach the code protection features of Microchip products are strictly prohibited and may violate the Digital Millennium Copyright Act.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of its code. Code protection does not mean that we are guaranteeing the product is “unbreakable”. Code protection is constantly evolving. Microchip is committed to continuously improving the code protection features of our products.

Product Page Links

[PIC16F17114](#), [PIC16F17115](#), [PIC16F17124](#), [PIC16F17125](#), [PIC16F17144](#), [PIC16F17145](#)