

## PIC18F27/47/57Q84

# PIC18F27/47/57Q84 Silicon Errata and Data Sheet Clarifications

The PIC18F27/47/57Q84 devices that you have received conform functionally to the current device data sheet (DS40002213C), 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 PIC18F27/47/57Q84 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		
Fait Nullibei	Device iD	В3	B4	
PIC18F27Q84	0x9903	0xA043	0xA044	
PIC18F47Q84	0x9904	0xA043	0xA044	
PIC18F57Q84	0x9905	0xA043	0xA044	



Important: Refer to the Device/Revision ID section in the current "PIC18FXXQ84 Family Programming Specification" (DS40002137C) for more detailed information on Device Identification and Revision IDs for your specific device.

Table 2. Silicon Issue Summary

Module	Footure	Item No.	Jaqua Summany	Affected Revisions	
Wodule	Feature		Issue Summary	В3	B4
	Hardware Reset condition	1.1.1	Reset does not happen at period match when the prescaler > 0	Х	
UTMR	Level-triggered ERS Start/Reset condition	1.1.2	Dead zone exists in level-triggered Start/Reset condition when an ERS signal is generated due to an SFR access	×	Х
OTIVIN	Reset does not happen at pe Hardware Reset match when the prescaler > 0	Reset does not happen at period match when the prescaler > 0 and the timer stops at period match (includes One Shot mode)	X	Х	
	Pulse output	1.1.4	Pulse output does not occur at period match when the prescaler = 1		Х
<b>Note:</b> 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 as well as current. Only the issues indicated by the bold font in the following tables apply to the current silicon revision.

### 1.1 Module: Universal Timer (UTMR) Module

#### 1.1.1 Reset Does Not Happen at Period Match When the Prescaler > 0

When the prescaler > 0 and a hardware-based Reset event is selected (RESET = 'b01 or 'b10 or 'b11), the timer does not reset at period match.

#### Work around

- 1. Use prescaler = 0, or
- When using prescaler > 0, clear the timer in software using the CLR command at every PR match interrupt.

#### **Affected Silicon Revisions**

В3	В4
X	

## 1.1.2 Dead Zone Exists in Level-Triggered Start/Reset Condition When an ERS Signal Is Generated Due to an SFR Access

When a level-triggered Start/Reset condition (START = 'b11 or RESET = 'b01) is triggered by an ERS signal generated by an SFR access such as TUxyPRL\_Write or TUxyTMRL\_Read or TUxyCRL\_Read (TUxyERS = 0x3E or 0x3F), there exists a dead zone in which subsequent SFR accesses will be missed. This dead zone is the period between the ZIF flag being set and the timer starting to count again. This can be monitored by checking either the RUN status bit or the level output of the timer.

#### Work around

The user must wait for the timer to start counting before accessing the period, counter and capture registers again.

#### **Affected Silicon Revisions**

В3	B4
X	X

## 1.1.3 Reset Does Not Happen at Period Match When the Prescaler > 0 and the Timer Stops at Period

When the prescaler > 0 and the timer is configured to reset at a hardware-based event (RESET = 'b01 or 'b10 or 'b11) and stop at period match (STOP = `b11), the timer stops at period match but does not reset (no pulse output occurs and ZIF interrupt is not generated).

#### Work around

- 1. Use prescaler = 0, or
- When using prescaler > 0, clear the timer in software using the CLR command at every PR match interrupt.

#### **Affected Silicon Revisions**

В3	В4
X	X

### 1.1.4 Pulse Output Does Not Occur at Period Match When the Prescaler = 1

The timer output pulse will not occur at period match when prescaler = 1.

#### Work around

1. Use prescaler = 0 or prescaler > 1 when a pulse output is desired.

#### **Affected Silicon Revisions**

В3	B4
	X

## 2. Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (40002213C):

#### 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
D	03/2021	Adding silicon erratum item 1.1.4
С	01/2021	Added new silicon Rev B4 and silicon erratum item 1.1.3. Minor editorial corrections
В	11/2020	Changed to released silicon revision
Α	06/2020	Initial document release

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**Errata** DS80000894D-page 7

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Noblesville, IN Tel: 86-592-2388138 China - Zhuhai Tel: 317-773-8323 Tel: 317-773-5453 Tel: 86-756-3210040 Tel: 47-72884388 Tel: 47-72884388 Poland - Warsaw Tel: 48-22-3325737 Romania - Bucharest Tel: 40-21-407-87-50 Spain - Madrid Tel: 34-91-708-08-90 Raleigh, NC Tel: 919-844-7510 New York, NY Tel: 631-435-6000 San Jose, CA Tel: 408-436-4270 Canada - Toronto Tel: 905-695-1980  Tel: 905-695-1980  Tel: 86-756-3210040 Tel: 86-756-3210040 Tel: 46-31-704-60-40 Tel: 46-8-5090-4654 UK - Wokingham Tel: 44-118-921-5820	Tel: 281-894-5983	Tel: 86-29-8833-7252	Tel: 84-28-5448-2100	Netherlands - Drunen
Tel: 317-773-8323 Fax: 317-773-5453 Tel: 317-536-2380 Los Angeles Mission Viejo, CA Tel: 949-462-9523 Fax: 949-462-9608 Tel: 951-273-7800 Raleigh, NC Tel: 919-844-7510 New York, NY Tel: 631-435-6000 San Jose, CA Tel: 408-436-4270 Canada - Toronto Tel: 408-436-4270 Canada - Toronto Tel: 905-695-1980  China - Zhuhai Tel: 47-72884388 Poland - Warsaw Tel: 47-72884388 Poland - Warsaw Tel: 47-72884388 Poland - Warsaw Tel: 48-22-3325737 Romania - Bucharest Tel: 40-21-407-87-50 Spain - Madrid Tel: 34-91-708-08-90 Fax: 34-91-708-08-91 Sweden - Gothenberg Tel: 46-31-704-60-40 Sweden - Stockholm Tel: 408-436-4270 Fax: 44-118-921-5820	Indianapolis	China - Xiamen		Tel: 31-416-690399
Fax: 317-773-5453 Tel: 317-536-2380 Los Angeles Mission Viejo, CA Tel: 949-462-9523 Fax: 949-462-9608 Tel: 951-273-7800 Raleigh, NC Tel: 919-844-7510 New York, NY Tel: 631-435-6000 San Jose, CA Tel: 40-8-735-9110 Tel: 408-436-4270 Canada - Toronto Tel: 905-695-1980  Tel: 86-756-3210040  Tel: 86-756-3210040  Tel: 86-756-3210040  Tel: 86-756-3210040  Tel: 48-22-3325737 Romania - Bucharest Tel: 40-21-407-87-50 Spain - Madrid Tel: 40-21-407-87-50 Spain - Madrid Tel: 34-91-708-08-90 Fax: 34-91-708-08-91 Sweden - Gothenberg Tel: 46-31-704-60-40 Sweden - Stockholm Tel: 408-735-9110 Tel: 408-436-4270 Fax: 44-118-921-5800 Fax: 44-118-921-5820	Noblesville, IN	Tel: 86-592-2388138		Fax: 31-416-690340
Fax: 317-773-5453       Tel: 86-756-3210040       Tel: 47-72884388         Tel: 317-536-2380       Poland - Warsaw         Los Angeles       Tel: 48-22-3325737         Mission Viejo, CA       Romania - Bucharest         Tel: 949-462-9523       Tel: 40-21-407-87-50         Fax: 949-462-9608       Spain - Madrid         Tel: 951-273-7800       Tel: 34-91-708-08-90         Raleigh, NC       Fax: 34-91-708-08-91         Tel: 919-844-7510       Sweden - Gothenberg         New York, NY       Tel: 46-31-704-60-40         Tel: 631-435-6000       Sweden - Stockholm         Tel: 408-735-9110       UK - Wokingham         Tel: 408-436-4270       Tel: 44-118-921-5800         Canada - Toronto       Fax: 44-118-921-5820		China - Zhuhai		Norway - Trondheim
Los Angeles       Tel: 48-22-3325737         Mission Viejo, CA       Romania - Bucharest         Tel: 949-462-9523       Tel: 40-21-407-87-50         Fax: 949-462-9608       Spain - Madrid         Tel: 951-273-7800       Tel: 34-91-708-08-90         Raleigh, NC       Fax: 34-91-708-08-91         Tel: 919-844-7510       Sweden - Gothenberg         New York, NY       Tel: 46-31-704-60-40         Tel: 631-435-6000       Sweden - Stockholm         San Jose, CA       Tel: 408-735-9110         Tel: 408-436-4270       UK - Wokingham         Tel: 408-436-4270       Fax: 44-118-921-5800         Canada - Toronto       Fax: 44-118-921-5820	Fax: 317-773-5453	Tel: 86-756-3210040		_
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Raleigh, NC       Fax: 34-91-708-08-91         Tel: 919-844-7510       Sweden - Gothenberg         New York, NY       Tel: 46-31-704-60-40         Tel: 631-435-6000       Sweden - Stockholm         San Jose, CA       Tel: 46-8-5090-4654         Tel: 408-735-9110       UK - Wokingham         Tel: 408-436-4270       Tel: 44-118-921-5800         Canada - Toronto       Fax: 44-118-921-5820	Tel: 951-273-7800			·
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New York, NY       Tel: 46-31-704-60-40         Tel: 631-435-6000       Sweden - Stockholm         San Jose, CA       Tel: 46-8-5090-4654         Tel: 408-735-9110       UK - Wokingham         Tel: 408-436-4270       Tel: 44-118-921-5800         Canada - Toronto       Fax: 44-118-921-5820         Tel: 905-695-1980       Fax: 44-118-921-5820	Tel: 919-844-7510			Sweden - Gothenberg
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San Jose, CA       Tel: 46-8-5090-4654         Tel: 408-735-9110       UK - Wokingham         Tel: 408-436-4270       Tel: 44-118-921-5800         Canada - Toronto       Fax: 44-118-921-5820         Tel: 905-695-1980       Fax: 44-118-921-5820	•			
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Canada - Toronto         Fax: 44-118-921-5820           Tel: 905-695-1980         Fax: 44-118-921-5820				_
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