Errata F29H85x and F29P58x Real-Time MCUs Silicon Errata (Silicon Revisions A, 0)



ABSTRACT

This document describes the known exceptions to the functional specifications (advisories). This document may also contain usage notes. Usage notes describe situations where the device's behavior may not match presumed or documented behavior. This may include behaviors that affect device performance or functional correctness.

Table of Contents

1 Usage Notes and Advisories Matrices	2
1.1 Usage Notes Matrix	2
1.2 Advisories Matrix	2
2 Nomenclature, Package Symbolization, and Revision Identification	
2.1 Device and Development-Support Tool Nomenclature	
2.2 Devices Supported	
2.3 Package Symbolization and Revision Identification	4
3 Silicon Revision A Usage Notes and Advisories	6
3.1 Silicon Revision A Usage Notes	
3.2 Silicon Revision A Advisories	7
4 Silicon Revision 0 Usage Notes and Advisories	
4.1 Silicon Revision 0 Usage Notes	
4.2 Silicon Revision 0 Advisories	
5 Documentation Support	24
6 Trademarks	
7 Revision History	

List of Figures

Figure 2-1. Package Symbolization for ZEX Package	4
Figure 2-2. Package Symbolization for PTS Package	
Figure 2-3. Package Symbolization for RFS Package	
Figure 2-4. Package Symbolization for PZS Package	
Figure 3-1. Undesired Trip Event and Blanking Window Expiration	
Figure 3-2. Resulting Undesired ePWM Outputs Possible	
Figure 3-3. Incorrect Power-up Sequence Leading to Stuck Reset	
Figure 3-4. Correct Power-up Sequence With Reset Release	

List of Tables

Table 1-1. Usage Notes Matrix	2
Table 1-2. Advisories Matrix	2
Table 2-1. Revision Identification	
Table 4-1. Clock Source Options	



1 Usage Notes and Advisories Matrices

Table 1-1 lists all usage notes and the applicable silicon revisions. Table 1-2 lists all advisories, modules affected, and the applicable silicon revisions.

1.1 Usage Notes Matrix

	Table 1-1. Usage Notes Matrix		
NUMBER	TITLE	SILICON REVISIONS AFFECTED	
		0	A
TBD	TBD	TBD	TBD

1.2 Advisories Matrix

Table 1-2. Advisories Matrix

MODULE	DESCRIPTION		SILICON REVISIONS AFFECTED	
		0	A	
ADC	ADC: Interrupts may Stop if INTxCONT (Continue-to-Interrupt Mode) is not Set	Yes	Yes	
MCAN	Message Order Inversion When Transmitting From Dedicated Tx Buffers Configured With Same Message ID	Yes	Yes	
ePWM	ePWM: An ePWM Glitch can Occur if a Trip Remains Active at the End of the Blanking Window	Yes	Yes	
ePWM	ePWM: ePWM TZFRC and TZCLR Events are Sometimes Missed When PERCLKDIVSEL.EPWMCLKDIV = 1	Yes	Yes	
Flash	Flash: Stand-alone CPU1/CPU3 Reset With Flash Prefetch Enabled may Cause NMI to CPU1/CPU3	Yes	Yes	
GPIO	GPIO: Open-Drain Configuration may Drive a Short High Pulse	Yes	Yes	
HSM	HSM: HSM ROM Code Does Not Boot HSMRT Image of Size Greater Than 191KB	Yes	Yes	
MCD	MCD: Missing Clock Detect Should be Disabled When the PLL is Enabled (PLLCLKEN = 1)	Yes	Yes	
MEMSS	MEMSS: Data Line Buffer (DLB) for RAM Causes Data Coherency Issue	Yes	Yes	
ROM	ROM: By Default, GPIO4 is Configured as ERRORSTS by ROM Code and Driven High	Yes	No	
SDFM	SDFM: Dynamically Changing Threshold Settings (LLT, HLT), Filter Type, or COSR Settings Will Trigger Spurious Comparator Events	Yes	Yes	
SDFM	SDFM: Dynamically Changing Data Filter Settings (Such as Filter Type or DOSR) Will Trigger Spurious Data Acknowledge Events	Yes	Yes	
SDFM	SDFM: Two Back-to-Back Writes to SDCPARMx Register Bit Fields CEVT1SEL, CEVT2SEL, and HZEN Within Three SD-Modulator Clock Cycles can Corrupt SDFM State Machine, Resulting in Spurious Comparator Events	Yes	Yes	
C29 CPU Subsystem	C29 CPU Subsystem: DTHE Interrupts and DMA Events Not Triggered in C29 CPU Subsystem for HS-FS Devices	Yes	Yes	
System	System: Device Reset Remains Asserted When VDD Voltage Ramps Before VDDIO	Yes	Yes	
System	System: Pending Misaligned Reads in the Pipeline After CPU Goes to Fault State Preventing NMI Vector Fetch	Yes	Yes	
UART	UART: UART FIFO Gets Cleared on Continuous Debugger Reads	Yes	Yes	
VSSOSC	VSSOSC: Coupling From Adjacent Pins X1 or X2 may Prevent Proper Boot	Yes	No	



2 Nomenclature, Package Symbolization, and Revision Identification

2.1 Device and Development-Support Tool Nomenclature

Texas Instruments recommends two of three possible prefix designators for its support tools: TMDX and TMDS. These prefixes represent evolutionary stages of product development from engineering prototypes (TMDX) through fully qualified production tools (TMDS).

Device development evolutionary flow:

- **X** Experimental device that is not necessarily representative of the final device's electrical specifications and may not use production assembly flow.
- **P** Prototype device that is not necessarily the final silicon die and may not necessarily meet final electrical specifications.

null Production version of the silicon die that is fully qualified.

Support tool development evolutionary flow:

TMDX Development-support product that has not yet completed Texas Instruments internal qualification testing. **TMDS** Fully-qualified development-support product.

X and P devices and TMDX development-support tools are shipped against the following disclaimer:

"Developmental product is intended for internal evaluation purposes."

Production devices and TMDS development-support tools have been characterized fully, and the quality and reliability of the device have been demonstrated fully. TI's standard warranty applies.

Predictions show that prototype devices (X or P) have a greater failure rate than the standard production devices. Texas Instruments recommends that these devices not be used in any production system because their expected end-use failure rate still is undefined. Only qualified production devices are to be used.

2.2 Devices Supported

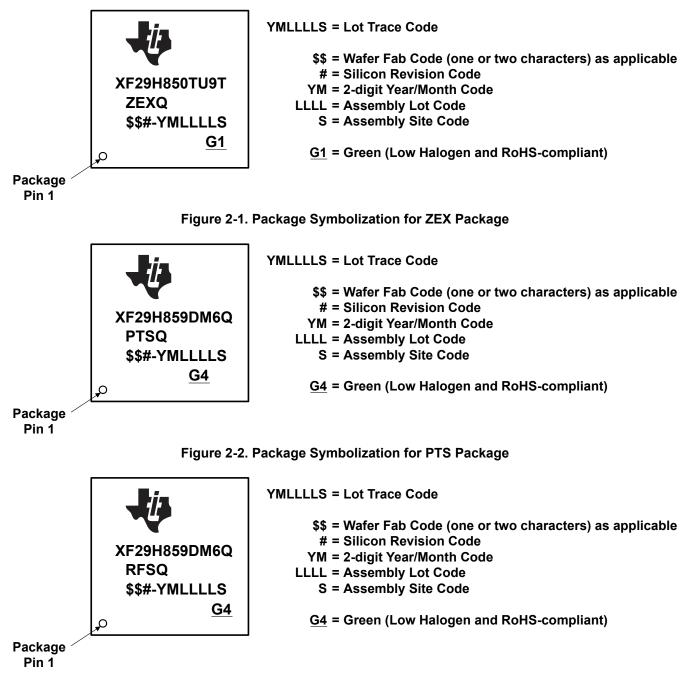
This document supports the following devices:

- F29H850TU
- F29H859TU-Q1
- F29H859TM-Q1
- F29H850DU
- F29H859DU-Q1
- F29H850DM
- F29H859DM-Q1
- F29P589DU-Q1
- F29P580DM
- F29P589DM-Q1



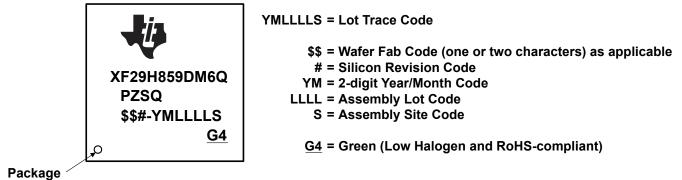
2.3 Package Symbolization and Revision Identification

Figure 2-1, Figure 2-2, Figure 2-3, and Figure 2-4 show the package symbolization. Table 2-1 lists the silicon revision codes.









Pin 1

Figure 2-4. Package Symbolization for PZS Package

SILICON REVISION CODE	SILICON REVISION	REVID ⁽¹⁾ Address: 0x3018 0028	COMMENTS ⁽²⁾
Blank	0	0x0000 0001	This silicon revision is available as pre- production.
A	A	0x0000 0002	This silicon revision is available as pre- production.

Table 2-1. Revision Identification

(1) Silicon Revision ID

(2) For orderable device numbers, see the PACKAGING INFORMATION table in the *F29H85x and F29P58x Real-Time Microcontrollers* data sheet.



3 Silicon Revision A Usage Notes and Advisories

This section lists the usage notes and advisories for this silicon revision.

3.1 Silicon Revision A Usage Notes

This section lists all the usage notes that are applicable to silicon revision A and earlier silicon revisions.

3.2 Silicon Revision A Advisories

This section lists all the advisories that are applicable to silicon revision A and earlier silicon revisions.

Advisory	ADC: Interrupts may Stop if INTxCONT (Continue-to-Interrupt Mode) is not Set	
Revisions Affected	0, A	
Details	If ADCINTSELxNx[INTxCONT] = 0, then interrupts will stop when the ADCINTFLG is set and no additional ADC interrupts will occur.	
	When an ADC interrupt occurs simultaneously with a software write of the ADCINTFLGCLR register, the ADCINTFLG will unexpectedly remain set, blocking future ADC interrupts.	
Workarounds	 Use Continue-to-Interrupt Mode to prevent the ADCINTFLG from blocking additional ADC interrupts: 	
	ADCINTSEL1N2[INT1CONT] = 1; ADCINTSEL1N2[INT2CONT] = 1; ADCINTSEL3N4[INT3CONT] = 1; ADCINTSEL3N4[INT4CONT] = 1;	
	2. Ensure there is always sufficient time to service the ADC ISR and clear the ADCINTFLG before the next ADC interrupt occurs to avoid this condition. 3. Check for an overflow condition in the ISR when clearing the ADCINTFLG. Check ADCINTOVF immediately after writing to ADCINTFLGCLR; if it is set, then write ADCINTFLGCLR a second time to ensure the ADCINTFLG is cleared. The ADCINTOVF register will be set, indicating an ADC conversion interrupt was lost. AdcaRegs.ADCINTFLGCLR.bit.ADCINT1 = 1; //clear INT1 flag if(1 == AdcaRegs.ADCINTOVF.bit.ADCINT1) //ADCINT overflow { AdcaRegs.ADCINTFLGCLR.bit.ADCINT1 = 1; //clear INT1 again // If the ADCINTOVF condition will be ignored by the application // then clear the flag here by writing 1 to ADCINTOVFCLR. // If there is a ADCINTOVF handling routine, then either insert // that code and clear the ADCINTOVF flag here or do not clear // the ADCINTOVF here so the external routine will detect the // condition. // AdcaRegs.ADCINTOVFCLR.bit.ADCINT1 = 1; // clear OVF	



Advisory	Message Order Inversion When Transmitting From Dedicated Tx Buffers Configured With Same Message ID	
Revisions Affected	0, A	
Details	Multiple Tx Buffers are configured with the same Message ID. Transmission of these Tx buffers is requested sequentially in ascending order with a delay between the individual Tx requests. Depending on the delay between the individual Tx requests, the Tx Buffers may not be transmitted in the expected ascending order of the Tx Buffer number.	
Workarounds	First, write the group of Tx messages with same Message ID to the Message RAM. Then, request transmission of all of these messages concurrently by a single write access to TXBAR .	
	Use the Tx FIFO instead of dedicated Tx Buffers for the transmission of several messages with the same Message ID in a specific order.	

Advisory	ePWM: An ePWM Glitch can Occur if a Trip Remains Active at the End of the Blanking Window	
Revisions Affected	0, A	
Details	The blanking window is typically used to mask any PWM trip events during transitions which would be false trips to the system. If an ePWM trip event remains active for less than three ePWM clocks after the end of the blanking window cycles, there can be an undesired glitch at the ePWM output.	
	Figure 3-1 illustrates the time period which could result in an undesired ePWM output.	
	3 ePWM cycles	
	Blanking Window Active Blanking Complete	
	Trip Source Trip Active Undesired Trip Active-to-Inactive Transition Trip Inactive	

Figure 3-1. Undesired Trip Event and Blanking Window Expiration

Figure 3-2 illustrates the two potential ePWM outputs possible if the trip event ends within 1 cycle before or 3 cycles after the blanking window closes.

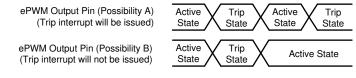


Figure 3-2. Resulting Undesired ePWM Outputs Possible

Workaround Extend or reduce the blanking window to avoid any undesired trip action.



Advisory	ePWM: ePWM TZFRC and TZCLR Events are Sometimes Missed When PERCLKDIVSEL.EPWMCLKDIV = 1		
Revisions Affected	0, A		
Details	The TZFRC bit is used for software-forced trip events, while the TZCLR is used for clearing the trip zone events. On this device with EPWMCLKDIV, the TZFRC trip and TZCLR write are sometimes missed and leave the output unaffected if PERCLKDIVSEL.EPWMCLKDIV is programmed to 1. This bit is programmed to 1 by default, so the user should always program this bit to 0. When programmed to 0, EPWMCLK is 200 MHz. When programmed to 1, EPWMCLK is 100 MHz.		
Workaround	 Always program PERCLKDIVSEL.EPWMCLKDIV = 0 if using the TZFRC or TZCLR register. For PERCLKDIVSEL.EPWMCLKDIV = 1 (Divide-by-2 clock setting), always do two back-to-back writes when using TZFRC/TZCLR. 		

Advisory	Flash: Stand-alone CPU1/CPU3 Reset With Flash Prefetch Enabled may Cause NMI to CPU1/CPU3
Revisions Affected	0, A
Details	If Flash prefetch is enabled, a stand-alone reset issued to CPU1 or CPU3 (for example, debug reset from CCS) may cause an NMI to the CPU because of an uncorrectable ECC error. Below are the sources for a stand-alone CPU reset.
	CPU1:
	 Debug reset HSM → CPU1.RSn
	CPU3:
	 Debug reset HSM → CPU3.RSn CPU3 WD Reset CPU3 NMIWD Reset SSU_CPU3_CFG_REGS → CPU_RST_CTRL.SW_SYSRSN
Workaround	Disable Flash prefetch (FRIx_INTF_CTRL.PREFETCH_EN = 0) before issuing a stand- alone reset to the CPU.
	$CPU1 \rightarrow FRI1_INTF_CTRL.PREFETCH_EN = 0$
	$CPU3 \rightarrow FRI3_INTF_CTRL.PREFETCH_EN = 0$
	FRIx_INTF_CTRL.PREFETCH_EN is writable from CPU1.LINK2 and CPU1/3 debugger if ZONE1 is enabled.



Advisory	GPIO: Open-Drain Configuration may Drive a Short High Pulse	
Revisions Affected	0, A	
Details	Each GPIO can be configured to an open-drain mode using the GPxODR register. However, an internal device timing issue may cause the GPIO to drive a logic-high for up to 0–10 ns during the transition into or out of the high-impedance state.	
	This undesired high-level may cause the GPIO to be in contention with another open- drain driver on the line if the other driver is simultaneously driving low. The contention is undesirable because it applies stress to both devices and results in a brief intermediate voltage level on the signal. This intermediate voltage level may be incorrectly interpreted as a high level if there is not sufficient logic-filtering present in the receiver logic to filter this brief pulse.	
Workaround	<pre>If contention is a concern, do not use the open-drain functionality of the GPIOs; instead, emulate open-drain mode in software. Open-drain emulation can be achieved by setting the GPIO data (GPxDAT) to a static 0 and toggling the GPIO direction bit (GPxDIR) to enable and disable the drive low. For an example implementation, see the code below.</pre> <pre>void main(void) { // GPIO configuration EALLOW;</pre>	

Advisory	HSM: HSM ROM Code Does Not Boot HSMRT Image of Size Greater Than 191KB	
Revisions Affected	0, A	
Details	Hardware Security Module (HSM) ROM does not boot HSMRT image of size greater than 191KB in Flash Boot Mode.	
Workaround	Keep HSMRT image size less than 191KB.	



Advisory	MCD: Missing Clock Detect Should be Disabled When the PLL is Enabled (PLLCLKEN = 1)	
Revisions Affected	0, A	
Details	The PLL has a limp mode feature to provide a slow PLLRAWCLK output even if its input OSCCLK is absent. Independently, the Missing Clock Detect (MCD) circuit will forcibly switch the system clock source to INTOSC1 when a missing OSCCLK input is detected. The MCD mux to switch between these system clock sources is not ensured to be glitch-free when both clock sources (PLLRAWCLK and INTOSC1) are still active. In rare cases, this may lead to unpredictable device behavior during a missing clock failure event.	
Workarounds	When the PLL is used by the system (PLLCLKEN = 1), disable the MCD by writing MCDCR.MCLKOFF = 1.	
	The Dual Clock Comparator (DCC) circuit can be configured to quickly detect if the SYSCLK frequency drops outside the desired frequency to its limp mode due to a missing clock event.	
	When the system is operating in PLL bypass mode (PLLCLKEN = 0), the MCD circuit can still be used to detect missing clock events and switch the clock source to INTOSC1.	

Advisory	MEMSS: Data Line Buffer (DLB) for RAM Causes Data Coherency Issue		
Revisions Affected	0, A		
Details	When the Data Line Buffer (DLB) is enabled (by default) and two CPUs perform simultaneous read/write operations to the same RAM address location, the read operation may receive stale data instead of new data in certain conditions.		
Workaround	The user should disable the DLB using the configuration bit in the MEM_DLB_CONFIG register if the RAM block is shared between multiple CPUs.		



Advisory	SDFM: Dynamically Changing Threshold Settings (LLT, HLT), Filter Type, or COSR Settings Will Trigger Spurious Comparator Events		
Revisions Affected	0, A		
Details	When SDFM comparator settings—such as filter type, lower/upper threshold, or comparator OSR (COSR) settings—are dynamically changed during run time, spurious comparator events will be triggered. The spurious comparator event will trigger a corresponding CPU interrupt, ePWM X-BAR events, and GPIO output X-BAR events if configured appropriately.		
 Workaround When comparator settings need to be changed dynamically, follow the procedur to ensure spurious comparator events do not generate a CPU interrupt or X-BA (ePWM X-BAR/GPIO output X-BAR events): 1. Disable the comparator filter. 2. Delay for at least a latency of the comparator filter + 3 SD-Cx clock cycles. 3. Change comparator filter settings such as filter type, COSR, or lower/upper 4. Delay for at least a latency of the comparator filter + 5 SD-Cx clock cycles. 5. Enable the comparator filter. 			
Advisory	SDFM: Dynamically Changing Data Filter Settings (Such as Filter Type or DOSR) Will Trigger Spurious Data Acknowledge Events		
Revisions Affected	0, A		
Details	When SDFM data settings—such as filter type or DOSR settings—are dynamically changed during run time, spurious data-filter-ready events will be triggered. The spurious data-ready event will trigger a corresponding CPU interrupt and DMA trigger if configured appropriately.		
Workaround	 When SDFM data filter settings need to be changed dynamically, follow the procedure below to ensure spurious data-filter-ready events are not generated: 1. Disable the data filter. 2. Delay for at least a latency of the data filter + 3 SD-Cx clock cycles. 3. Change data filter settings such as filter type and DOSR. 4. Delay for at least a latency of the data filter + 5 SD-Cx clock cycles. 5. Enable the data filter. 		

Advisory	SDFM: Two Back-to-Back Writes to SDCPARMx Register Bit Fields CEVT1SEL, CEVT2SEL, and HZEN Within Three SD-Modulator Clock Cycles can Corrupt SDFM State Machine, Resulting in Spurious Comparator Events	
Revisions Affected	0, A	
Details	Back-to-back writes to SDCPARMx register bit fields CEVT1SEL, CEVT2SEL, and HZEN within three SD-modulator clock cycles can potentially corrupt the SDFM state machine, resulting in spurious comparator events, which can potentially trigger CPU interrupts, ePWM XBAR events, and GPIO output X-BAR events if configured appropriately.	
Workaround	Avoid back-to-back writes within three SD-modulator clock cycles or have the SDCPARMx register bit fields configured in one register write.	



Advisory	C29 CPU Subsystem: DTHE Interrupts and DMA Events Not Triggered in C29 CPU Subsystem for HS-FS Devices	
Revisions Affected	0, A	
Details	In the High-Security, Field-Securable (HS-FS) device life-cycle state, cryptographic engines can be automatically assigned to the C29 CPU subsystem using a boot certificate extension option. When this option is configured in the certificate, the engines are mapped to the C29 CPU, but the corresponding interrupt signals and DMA events are not routed to the C29 CPU, and thus do not trigger when running a C29 application.	
Workaround	To detect events generated by the cryptographic accelerator engines, poll the respective interrupt or DMA status register.	

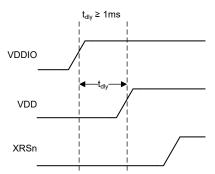


Advisory	System: Device Reset Remains Asserted When VDD Voltage Ramps Before VDDIO
Revisions Affected	0, A
Details	The device XRSn reset signal can remain in a low (reset asserted) state when the VDD supply voltage is ramped up before or simultaneously with the VDDIO supply. As a result, the device fails to boot.
	VDD
	XRSn XRSn stays low

Figure 3-3. Incorrect Power-up Sequence Leading to Stuck Reset



Ensure the VDDIO supply is fully ramped up at least 1ms before ramping up the VDD supply voltage.







Advisory	System: Pending Misaligned Reads in the Pipeline After CPU Goes to Fault State Preventing NMI Vector Fetch	
Revisions Affected	0, A	
Details	The NMI handler fails to execute when three or more back-to-back C29 CPU faults caused by misaligned reads occur. When more than two faults are in the CPU pipeline, the CPU does not fetch the NMI vector as expected.	
Workaround	 Use ERAD-SEC counter: Choose ESM_GEN_EVENT as input to EPWMXBAR. Configure the ERAD-SEC1 counter in start-stop mode: start event as EPWMXBAR event, stop event as SEC1 event itself. This counter will be counting SYSCLK cycles. Configure the ERAD-SEC reference register to generate a match event and trigger an NMI (INT_EN and NMI_EN bits in SEC_CNTL register) on a count of 50. Configure ESM CPU1 to generate an NMI on the ERAD_CPU1_NMI event. 	

Advisory	UART: UART FIFO Gets Cleared on Continuous Debugger Reads	
Revisions Affected	0, A	
Details	The UART IP treats debugger and CPU reads in the same way. As a result, on reading the UART_DR register continuously from CCS, the FIFO gets cleared before the code actually reads it.	
Workaround	Do not keep the memory browser open during UART data transfers.	



4 Silicon Revision 0 Usage Notes and Advisories

This section lists the usage notes and advisories for this silicon revision.

4.1 Silicon Revision 0 Usage Notes

Silicon revision-applicable usage notes have been found on a later silicon revision. For more details, see Silicon Revision A Usage Notes.

4.2 Silicon Revision 0 Advisories

Silicon revision-applicable advisories have been found on a later silicon revision. For more details, see Silicon Revision A Advisories.

Advisory	ROM: By Default, GPIO4 is Configured as ERRORSTS by ROM Code and Driven High		
Revisions Affected	0		
Details	The ROM code configures a GPIO pin for the ERRORSTS function after the device reset (XRSn) based on SECCFG field settings. By default, the ROM code configures the GPIO4 pin as the ERRORSTS pin. The ERRORSTS (GPIO4) pin will be controlled by the Error Signaling Module (ESM) and will be driven high by default (no error). This high state can cause a board issue if the GPIO4 pin is used to drive critical system functions. For example, if GPIO4 is used for the EPWM3_A function, a high-power FET can be turned on inadvertently and cause damage to the board.		
Workaround	 Avoid using GPIO4 for critical system functions on the board (for example, driving high-power FETs). If GPIO4 must be used for critical system functions, choose a different GPIO for ERRORSTS by appropriately configuring the SECCFG field. Refer to the empty_driverlib_project_secure example in SDK to see how to change the ERRORSTS pinmux option. Since the ROM code configures the GPIO pin for the ERRORSTS function on device reset (XRSn) only, but the ERRORSTS pinmux configuration gets cleared by a debugger reset as well, the user needs to issue a full device reset (XRSn) to rerun the ROM code configuration of ERRORSTS. 		

Advisory	VSSOSC: Coupling From Adjacent Pins X1 or X2 may Prevent Proper Boot				
Revisions Affected	0				
Details	For silicon revision 0 devices, VSSOSC noise can induce INTOSC2 glitches, which can put the device into a fault state when INTOSC2 is a clock source for the device. INTOSC2 is used as a primary clock to the device during boot, flash programming, and any other time as configured by the application. Fast edge rates on the adjacent X1 or X2 pins can induce noise on the VSSOSC pin and must be avoided for silicon revision 0 devices. Devices after silicon revision 0 do not have this sensitivity.				
Workaround	On silicon revision 0 devices, do not use fast edges on the X1 or X2 pins. For example, do not use a single-ended crystal to drive X1.				
	APPLICATION CLOCK SOURCE	ble 4-1. Clock Source Option SILICON REVISION 0	SILICON REVISION A		
	X1–X2 crystal	Preferred	Acceptable		
	X1 single-ended input from external oscillator	Avoid	Acceptable		
	INTOSC2	Acceptable if the wider INTOSC frequency accuracy is acceptable			



5 Documentation Support

For device-specific data sheets and related documentation, visit the TI web site at: https://www.ti.com.

For more information regarding the F29H85x and F29P58x devices, see the following documents:

- F29H85x and F29P58x Real-Time Microcontrollers data sheet
- F29H85x and F29P58x Real-Time Microcontrollers Technical Reference Manual

6 Trademarks

All trademarks are the property of their respective owners.

7 Revision History

C	hanges from November 6, 2024 to March 10, 2025	Page
•	This Revision History lists the changes from SPRZ569 to SPRZ569A.	1
•	Global: TI is transitioning to use more inclusive terminology. Some language may be different than what	you
	would expect to see for certain technology areas. For SPI, all instances of legacy terminology have been	1
	changed to controller and peripheral. All instances of legacy pin names have been changed to: POCI	
	(Peripheral OUT Controller IN); PICO (Peripheral IN Controller OUT); and CS (Chip Select). For the I2C	Bus
	Interface, all instances of legacy terminology have been changed to controller and target. For the CAN a	nd
	LIN Interface/BUS, all instances of legacy terminology have been changed to commander and responde	r. For
	the EtherCAT Controller, all instances of legacy terminology have been changed to MainDevice (or MDe	vice)
	and SubordinateDevice (or SubDevice)	1
•	Global: Added silicon revision A	
•	Removed During DCAN FIFO Mode, Received Messages may be Placed Out of Order in the FIFO Buffe	<i>r</i>
	advisory	1
•	Updated Usage Notes Matrix table	2
•	Updated Advisories Matrix table	
•	Updated Revision Identification table	4
•	Added ePWM: ePWM TZFRC and TZCLR Events are Sometimes Missed When	
	PERCLKDIVSEL.EPWMCLKDIV = 1 advisory	10
•	Flash: Stand-alone CPU1/CPU3 Reset With Flash Prefetch Enabled may Cause NMI to CPU1/CPU3	
	advisory: Updated Details and Workaround	
•	Added HSM: HSM ROM Code Does Not Boot HSMRT Image of Size Greater Than 191KB advisory	
•	Added MEMSS: Data Line Buffer (DLB) for RAM Causes Data Coherency Issue advisory	15
•	System: Device Reset Remains Asserted When VDD Voltage Ramps Before VDDIO advisory:	
	Updated Details	19
•	Added ROM: By Default, GPIO4 is Configured as ERRORSTS by ROM Code and Driven High advisory.	
•	Added VSSOSC: Coupling From Adjacent Pins X1 or X2 may Prevent Proper Boot advisory	23

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2025, Texas Instruments Incorporated