



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250110001.1

**Qualify New Assembly material, Bond wire removal and
datasheet update for select F65 devices
Change Notification / Sample Request**

Date: January 17, 2025

To: Mouser PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Sincerely,

Change Management Team
SC Business Services

20250110001.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
F2800157SPM	NULL
F2800157SPHPHR	NULL
F2800157SPHP	NULL
F2800155SPNR	NULL
F2800157SPN	NULL
F2800157SPMR	NULL
F2800155SPMR	NULL
F2800155SPHPR	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	20250110001.1	PCN Date:	January 17, 2025
Title:	Qualify New Assembly material, Bond wire removal and datasheet update for select F65 devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	April 17, 2025	Sample requests accepted until:	March 18, 2025*

***Sample requests received after March 18, 2025 will not be supported.**

Change Type:

<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Material
<input checked="" type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Process
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input type="checkbox"/> Wafer Fab Site
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input type="checkbox"/> Wafer Fab Material
<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input type="checkbox"/> Wafer Fab Process

PCN Details

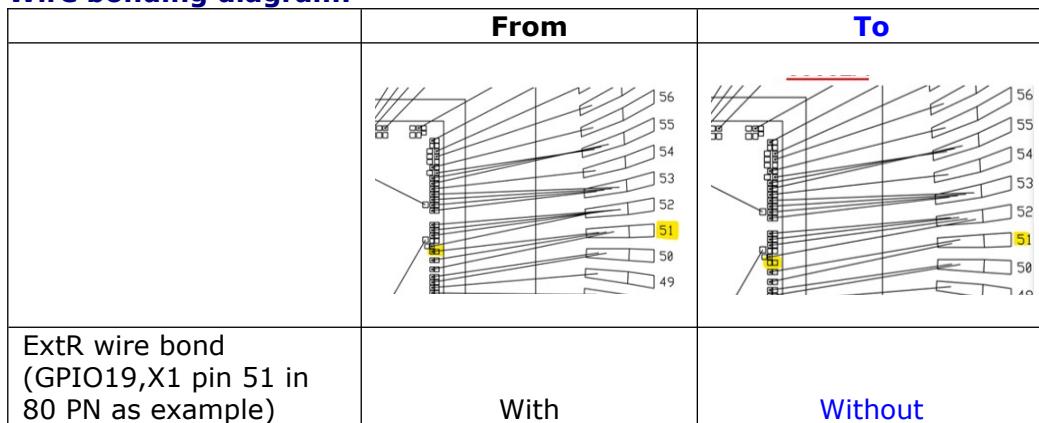
Description of Change:

Texas Instruments is pleased to announce the qualification of new assembly material, removal of ExtR wire bond (ie. GPIO,X1- pin 51 in 80PN package) and data sheet update for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:

Construction differences are as follows:

Material	Current	Proposed
Mold compound	4212581	4211649

Wire bonding diagram:



The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history. The links to the revised datasheets are available in the table below.



[TMS320F2800157-Q1](#), [TMS320F2800157](#), [TMS320F2800156-Q1](#), [TMS320F2800155-Q1](#)
[TMS320F2800155](#), [TMS320F2800154-Q1](#), [TMS320F2800153-Q1](#), [TMS320F2800152-Q1](#)

SPRSP68C – JANUARY 2023 – REVISED JANUARY 2025

Changes from November 21, 2023 to January 9, 2025	Page
• This Revision History lists the changes from SPRSP68B to SPRSP68C.	1
• <i>Device Comparison</i> table: Removed "INTOSC with ExtR accuracy" row and associated footnote.....	7
• <i>48-Pin PHP PowerPAD™ Thermally Enhanced Thin Quad Flatpack (Top View)</i> figure: Added footnote about GPIO226 and GPIO228.....	11
• <i>32-Pin RHB Very Thin Quad Flatpack No Lead (Top View)</i> figure: Added footnote about GPIO226 and GPIO228. Added footnote about GPIO227 and GPIO230.....	11
• <i>Pin Attributes</i> table: Removed ExtR from X1 pin description.....	15
• <i>Digital Signals</i> table: Removed ExtR.....	34
• <i>Digital Inputs and Outputs on ADC Pins (GPIOs)</i> section: Updated section.....	41
• <i>Absolute Maximum Ratings</i> table: Added additional information on input clamp current rows. Added two new footnotes.....	47
• <i>Recommended Operating Conditions</i> table: Added new footnote related to Vin row.....	47
• <i>Delay Blocks</i> section: Removed reference to external VREG.....	65
• <i>Internal 1.2-V LDO Voltage Regulator (VREG)</i> section: Removed "It is enabled by tying the VREGENZ pin low" sentence.....	65
• <i>VDD Decoupling</i> section: Updated Configuration 1 and Configuration 2.....	65
• <i>Power Management Module Operating Conditions</i> table: Updated CVDD TOTAL.....	71
• Removed INTOSC2 with External Precision Resistor – ExtR section.....	88
• <i>GPIO Assignments</i> section: Updated CAN-FD Boot Options table and Parallel Boot Options table.....	179
• <i>Package Symbolization</i> figures: Updated definition of G4 in all Package Symbolization figures.....	212
• <i>Documentation Support</i> section: Added <i>Migrating Software From 8-Bit (Byte) Addressable CPUs to C28x CPU to Application Notes</i> section.....	217
• <i>Documentation Support</i> section: Added <i>Hardware Design Guide for F2800x C2000™ Real-Time MCU Series Application Note</i>	217

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
TMS320F280015x	SPRSP68B	SPRSP68C	http://www.ti.com/product/TMS320F2800157

Reason for Change:			
Bond wire removal - removing ExtR support for INTOSC2			
Mold compound change: Continuity of supply			

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):			
Bond wire removal – ExtR functiona will no longer be supported.			

Mold compound change: Total FIT will remain below SIL Target.			
Package	Total FIT	SIL2 Target	
PN (80QFP)	56.13	≤1000	
PM (64QFP)	55.85	≤1000	
PHP (48QFP)	55.73	≤1000	

Changes to product identification resulting from this PCN:			
None			

Product Affected:			
F2800155SPHP	F2800155SPMR	F2800157SPHP	F2800157SPMR
F2800155SPHPR	F2800155SPN	F2800157SPHPR	F2800157SPN
F2800155SPM	F2800155SPNR	F2800157SPM	F2800157SPNR

Texas Instruments Qualification Summary

Qualification summary for:	F2800157SPHPR						
Report date:	01/13/2025						

Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
HTOL	JESD22-A108	3	77	Life test, 125C	1000 hours	Pass	Or equivalent JED EC condition
HTSL	JESD22-A103	3	25	High temp storage bake, 150C	1000 hours	Pass	Or equivalent JED EC condition
AC/UHAST	JESD22-A102/JES D22-A118	3	25	Unbiased HAST 13 0C / 85% RH	96 hours	Pass	Or equivalent JED EC condition
THB/HAST	JESD22-A101/JES D22-A110	3	25	HAST 130C/85%RH	96 hours	Pass	Or equivalent JED EC condition
TC	JESD22-A104	3	25	Temperature cycle -65/150C	500 cycles	Pass	Or equivalent JED EC condition
SD	J-STD-002	3	22	Per specification	>95% lead coverage	Pass	
HBM	JS-001	1	3	ESD - HBM	Classification	See data sheet	
CDM	JS-002	1	3	ESD - CDM	Classification	See data sheet	
LU	JESD78	1	3	Latch-up	Per JESD78	Pass	As applicable per J ESD78
MSL	J-STD-020	—	—	Per J-STD-020	Classification	See data sheet	

Texas Instruments Qualification Summary

Qualification summary for:	F2800157SPMR						
Report date:	01/13/2025						

Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
HTOL	JESD22-A108	3	77	Life test, 125C	1000 hours	Pass	Or equivalent JED EC condition
HTSL	JESD22-A103	3	25	High temp storage bake, 150C	1000 hours	Pass	Or equivalent JED EC condition
AC/UHAST	JESD22-A102/JES D22-A118	3	25	Unbiased HAST 13 0C / 85% RH	96 hours	Pass	Or equivalent JED EC condition
THB/HAST	JESD22-A101/JES D22-A110	3	25	HAST 130C/85%RH	96 hours	Pass	Or equivalent JED EC condition
TC	JESD22-A104	3	25	Temperature cycle -65/150C	500 cycles	Pass	Or equivalent JED EC condition
SD	J-STD-002	3	22	Per specification	>95% lead coverage	Pass	
HBM	JS-001	1	3	ESD - HBM	Classification	See data sheet	
CDM	JS-002	1	3	ESD - CDM	Classification	See data sheet	
LU	JESD78	1	3	Latch-up	Per JESD78	Pass	As applicable per J ESD78
MSL	J-STD-020	—	—	Per J-STD-020	Classification	See data sheet	

Texas Instruments Qualification Summary

Qualification summary for:	F2800157SPNR
Report date:	01/13/2025

Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
HTOL	JESD22-A108	3	77	Life test, 125C	1000 hours	Pass	Or equivalent JED EC condition
HTSL	JESD22-A103	3	25	High temp storage bake, 150C	1000 hours	Pass	Or equivalent JED EC condition
AC/UHAST	JESD22-A102/JES D22-A118	3	25	Unbiased HAST 130C / 85% RH	96 hours	Pass	Or equivalent JED EC condition
THB/HAST	JESD22-A101/JES D22-A110	3	25	HAST 130C/85%RH	96 hours	Pass	Or equivalent JED EC condition
TC	JESD22-A104	3	25	Temperature cycle -65/150C	500 cycles	Pass	Or equivalent JED EC condition
SD	J-STD-002	3	22	Per specification	>95% lead coverage	Pass	
HBM	JS-001	1	3	ESD - HBM	Classification	See data sheet	
CDM	JS-002	1	3	ESD - CDM	Classification	See data sheet	
LU	JESD78	1	3	Latch-up	Per JESD78	Pass	As applicable per JESD78
MSL	J-STD-020	—	—	Per J-STD-020	Classification	See data sheet	

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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