



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**Notification# 20240520011.0  
Datasheet for TMS320F28002x  
Information Only**

**Date:** May 24, 2024  
**To:** MOUSER PCN

Dear Customer:

This is an information-only announcement of a change to a device that is currently offered by Texas Instruments.

The changes discussed within this notification are for your information only.

Any negotiated alternative change requirements will be provided via the customer's defined process. Customers with previously negotiated, special requirements will be handled separately. Any inquiries should be directed to your local Field Sales Representative.

For questions regarding this notice, contact your local Field Sales Representative or the Change Management team.

Sincerely,

Change Management Team  
SC Business Services

**20240520011.0**  
**Information Only Datasheet**  
**Attachments**

**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
F280021PTQR	NULL
F280021PTSR	NULL
F280023CPMSR	NULL
F280023CPNSR	NULL
F280023CPTSR	NULL
F280023PMQR	NULL
F280023PMSR	NULL
F280023PNQR	NULL
F280023PNSR	NULL
F280023PTQR	NULL
F280023PTSR	NULL
F280025CPMQR	NULL
F280025CPMS	NULL
F280025CPMSR	NULL
F280025CPNQR	NULL
F280025CPNSR	NULL
F280025CPTQR	NULL
F280025CPTSR	NULL
F280025PMQR	NULL
F280025PMSR	NULL
F280025PNQR	NULL
F280025PNS	NULL
F280025PNSR	NULL
F280025PTQR	NULL
F280025PTS	NULL
F280025PTSR	NULL

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

<b>PCN Number:</b>	20240520011.0	<b>PCN Date:</b>	May 24, 2024
<b>Title:</b>	Datasheet for TMS320F28002x		
<b>Customer Contact:</b>	Change Management team	<b>Dept:</b>	Quality Services
<b>Change Type:</b>	Electrical Specification		

### PCN Details

#### Description of Change:

Texas Instruments Incorporated is announcing an information only notification. The product datasheet(s) is being updated as summarized below. The following change history provides further details.



**TMS320F280025, TMS320F280025-Q1**  
**TMS320F280025C, TMS320F280025C-Q1, TMS320F280023, TMS320F280023-Q1**  
**TMS320F280023C, TMS320F280021, TMS320F280021-Q1**  
SPRSP45C – MARCH 2020 – REVISED APRIL 2024

#### Changes from December 18, 2020 to April 4, 2024 (from Revision B (December 2020) to Revision C (April 2024))

	Page
• <i>Features</i> section: Changed " <b>On-chip</b> crystal oscillator or external clock input" to "Crystal oscillator or external clock input". Changed the number of individually programmable multiplexed General-Purpose Input/Output (GPIO) pins from 39 to 43.....	1
• <i>Features</i> section: Added Functional Safety bullet.....	1
• <i>Applications</i> section: Updated "Hybrids, electric & powertrain systems" applications.....	2
• <i>Description</i> section: Added reference to <i>Getting Started With C2000™ Real-Time Control Microcontrollers (MCUs) Getting Started Guide</i> .....	2
• <i>Package Information</i> table: Added table.....	2
• <i>Functional Block Diagram</i> figure: Removed connection between BGCR0 and Flash Bank0. Changed "39x GPIO" to "43x GPIO".....	5
• <i>Device Comparison</i> table: Updated pin counts of GPIO pins. Added Note to "Additional GPIO". Updated "eCAP/HRCAP modules – Type 1". Updated "ePWM/HRPWM channels – Type 4". .....	7
• <i>Device Comparison</i> table: Updated high resolution module numbers for eCAP and ePWM.....	7
• <i>Pin Attributes</i> table: Updated descriptions of VDD, VDDA, and VDDIO.....	9
• <i>Power and Ground</i> table: Updated descriptions of VDD, VDDA, and VDDIO.....	27
• <i>Specifications</i> section: Removed paragraph.....	48
• <i>Absolute Maximum Ratings</i> table: Updated "Input clamp current". Updated "Continuous clamp current per pin is ±2 mA ..." footnote. Added "Applying a V <sub>IN</sub> greater than VDDIO/VDDA or less than VSS/VSSA ..." footnote. Added "Input clamp current must also be observed" footnote.....	48
• <i>Absolute Maximum Ratings</i> table: Added "Stresses beyond those listed under <i>Absolute Maximum Ratings</i> ..." footnote and "All voltage values are with respect to VSS, unless otherwise noted" footnote.....	48
• <i>Recommended Operating Conditions</i> table: Removed MIN and MAX SR <sub>SUPPLY</sub> values. Removed SR <sub>SUPPLY</sub> unit. Updated its associated footnote.....	48
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• <i>Recommended Operating Conditions</i> table: Updated T <sub>J</sub> and T <sub>A</sub> .....	48
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• <i>ESD Ratings – Commercial</i> table: Removed JEDEC specification JESD22-C101 from description of Charged-device model (CDM). Added corner pins.....	48
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• <i>Delay Blocks</i> section: Removed reference to external VREG.....	60
• <i>Internal 1.2-V LDO Voltage Regulator (VREG)</i> section: Removed "It is enabled by tying the VREGENZ pin low" sentence.....	60

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The datasheet number will be changing.

Device Family	Change From:	Change To:
TMS320F28002x	SPRSP45B	<b>SPRSP45C</b>

These changes may be reviewed at the datasheet links provided.  
<http://www.ti.com/product/TMS320F280025>

**Reason for Change:**

To accurately reflect device characteristics.

<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>			
No anticipated impact. This is a specification change announcement only. There are no changes to the actual device			
<b>Changes to product identification resulting from this PCN:</b>			
None.			
<b>Product Affected:</b>			
F280021PTSR	F280025CPMS	F280023CPNSR	F280025PNQR
F280023CPMSR	F280025CPMSR	F280025PMSR	F280025PTQR
F280025PTS	F280023PTQR	F280025PNSR	F280025CPNSR
F280023PMSR	F280023CPTSR	F280025CPTQR	F280025CPNQR
F280023PTSR	SM288888PMSR	F280021PTQR	F280023PNQR
F280025PNS	F280025CPTSR	F280023PNSR	F280025PMS
F280025PTSR	F280023PMQR	F280025PMQR	F280025CPMQR

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