



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

Notification# 20190715001.0

**Datasheet for TMS320F28335, TMS320F28334, TMS320F28333, TMS320F28332
TMS320F28235, TMS320F28234, TMS320F28232
Information Only**

Date: August 07, 2019

To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

This is an information-only announcement of a change to the datasheet for 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 PCN team (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services

Information Only Attachments

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TMS320F28335PGFA	null
TMS320F28234PGFA	null
TMS320F28334PGFA	null
TMS320F28335ZHHA	null

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

PCN Number:	20190715001.0	PCN Date:	Aug. 7, 2019
Title:	Datasheet for TMS320F28335, TMS320F28334, TMS320F28333, TMS320F28332 TMS320F28235, TMS320F28234, TMS320F28232		
Customer Contact:	PCN Manager		Dept: Quality Services
Change Type:			
<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Site	
<input type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Material	
<input type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input type="checkbox"/> Wafer Bump Process	
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input type="checkbox"/> Wafer Fab Site	
<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input type="checkbox"/> Wafer Fab Materials	
		<input type="checkbox"/> Wafer Fab Process	

Notification 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.



**TMS320F28335, TMS320F28334, TMS320F28333, TMS320F28332
TMS320F28235, TMS320F28234, TMS320F28232**

SPRS439O –JUNE 2007–REVISED APRIL 2019

Changes from October 18, 2016 to April 22, 2019 (from N Revision (October 2016) to O Revision)

Page

• Section 1.1 (Features): Updated "Package Options" feature.	1
• Section 1.2 (Applications): Updated section.	2
• Section 1.3 (Description): Updated section.	3
• Section 3.1 (Related Products): Updated section.	9
• Table 4-1 (Signal Descriptions): Updated DESCRIPTION of XRS.	20
• Table 5-4 (Clocking and Nomenclature (150-MHz Devices)): Updated footnote about smallest valid "Low-speed peripheral clock prescaler register" value.	42
• Section 5.9.2.1 (Power Management and Supervisory Circuit Solutions): Updated section.	43
• Section 5.9.4.5.1 (Master Mode Timing): Updated section.	61
• Table 5-31 (SPI Master Mode External Timing (Clock Phase = 0)): Updated MIN value (for both BRR EVEN and BRR ODD) for Parameter 23, $t_{d(SPC)M}$	61
• Table 5-32 (SPI Master Mode External Timing (Clock Phase = 1)): Updated MIN value (for both BRR EVEN and BRR ODD) for Parameter 23, $t_{d(SPC)M}$	63
• Section 5.9.4.5.2 (Slave Mode Timing): Updated section.	64
• Section 5.9.6.2 (Synchronous Mode (USEREADY = 1, READYMODE = 0)): Updated "XTIMING register configuration restrictions" table by changing XRDACTIVE value from "≥ 1" to "≥ 2" and XWRACTIVE value from "≥ 1" to "≥ 2".	75
• Section 5.9.6.2 (Synchronous Mode (USEREADY = 1, READYMODE = 0)): Updated "Examples of valid and invalid timing" table by changing Valid XRDACTIVE value from "1" to "2" and Valid XWRACTIVE value from "1" to "2".	75
• Section 5.9.6.3 (Asynchronous Mode (USEREADY = 1, READYMODE = 1)): Updated "Examples of valid and invalid timing" table (X2TIMING = 1 row) by changing Valid XRDACTIVE value from "1" to "2" and Valid XWRACTIVE value from "1" to "2".	76
• Table 6-61 (Flash Parameters at 150-MHz SYSCLKOUT): Added MAX Program Time values and MAX Erase Time values. Added footnote about program time. Added footnote about maximum flash parameter.	92
• Section 6.2.7 (Analog-to-Digital Converter (ADC) Module): Updated equations by which the digital value of the input analog voltage is derived.	122
• Table 6-32 (PIE Peripheral Interrupts): Added footnote about ADCINT.	167
• Section 8.1 (Getting Started): Updated section.	178
• Section 8.3 (Tools and Software): Updated section.	180
• Section 8.4 (Documentation Support): Updated section.	182
• Section 9.1 (Packaging Information): Added link to Packaging information website.	186

The datasheet number will be changing.

Device Family	Change From:	Change To:
TMS320F28x	SPRS439N	SPRS439O

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/TMS320F28335>

Reason for Change:

To accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

No anticipated impact. This is a specification change announcement only. There are no changes to the actual device.

Changes to product identification resulting from this PCN:

None.

Product Affected:

TMS320F28232PGFA	TMS320F28234ZJZA	TMS320F28235ZJZS	TMS320F28334ZJZS
TMS320F28232PTPQ	TMS320F28234ZJZQ	TMS320F28332PGFA	TMS320F28335PGFA
TMS320F28232PTPS	TMS320F28234ZJZS	TMS320F28332PTPS	TMS320F28335PTPQ
TMS320F28232ZHHA	TMS320F28235PGFA	TMS320F28333PGFA	TMS320F28335PTPS
TMS320F28232ZJZA	TMS320F28235PTPQ	TMS320F28334PGFA	TMS320F28335ZHHA
TMS320F28234PGFA	TMS320F28235PTPS	TMS320F28334PTPS	TMS320F28335ZJZA
TMS320F28234PTPQ	TMS320F28235ZJZA	TMS320F28334ZHHA	TMS320F28335ZJZQ
TMS320F28234PTPS	TMS320F28235ZJZQ	TMS320F28334ZJZA	TMS320F28335ZJZQR
TMS320F28234ZHHA	TMS320F28235ZJZQR	TMS320F28334ZJZQ	TMS320F28335ZJZS

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), 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, 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 (www.ti.com/legal/termsofsale.html) 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.