

PCN Number:	20180913003	PCN Date:	September 18, 2018
Title:	Datasheet for TMS320C28341 - TMS320C28346		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	March 18, 2019		
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process

Notification Details

Description of Change:

The product datasheet(s) is being updated as summarized below. The following change history provides further details.

The datasheet number will be changing.



TMS320C28346, TMS320C28345, TMS320C28344
TMS320C28343, TMS320C28342, TMS320C28341

SPRS516E – MARCH 2009 – REVISED AUGUST 2018

Changes from August 6, 2012 to August 22, 2018 (from D Revision (August 2012) to E Revision)	Page
• Global: Restructured document.	1
• Global: Removed <i>Reliability Data for TMS320LF24xx and TMS320F28xx Devices Application Report</i>	1
• Global: Replaced "CAN 2.0B" with "ISO 11898-1 (CAN 2.0B)".	1
• Global: Added SYS/BIOS.	1
• Section 1.1 (Features): Removed "Dynamic PLL Ratio Changes Supported" feature.	1
• Section 1.1: Updated "Package Options" feature.	1
• Section 1.1: Added "Temperature Options" feature.	1
• (Applications): Added section.	1
• Section 1.3 (Description): Added section.	2
• Section 1.3: Added Device Information table.	2
• Table 3-1 (Device Comparison): Changed title from "C2834x Hardware Features" to "Device Comparison".	7
• Table 3-1: Changed "PWM outputs" to "PWM channels".	7
• Table 3-1: Removed "Product status" row and associated footnote.	7
• Table 3-1: Removed footnote about custom secure versions of devices.	7
• Section 3.1 (Related Products): Added section.	8

• Section 5.2 (ESD Ratings – Automotive): Added section.	28
• Section 5.3 (ESD Ratings – Commercial): Added section.	28
• Section 5.5 (Power Consumption Summary): Added section.	30
• Section 5.6 (Electrical Characteristics): Changed MAX I _L (Pin with pullup enabled) from –130 µA to –100 µA.	33
• Section 5.9.2 (Power Sequencing): Updated "No voltage larger than a diode drop ..." paragraph.	39
• Section 5.9.2.1 (Power Management and Supervisory Circuit Solutions): Updated section.	39
• Table 5-21 (High-Resolution PWM Characteristics at SYSCLKOUT = (150–300 MHz)): Updated footnote.	51
• Section 5.9.4.5.1 (Master Mode Timing): Updated section.	55
• Section 5.9.4.5.2 (Slave Mode Timing): Updated section.	58
• Section 5.9.4.6.2 (McBSP as SPI Master or Slave Timing): Replaced "For all SPI slave modes ..." paragraphs with "For all SPI slave modes ..." table footnotes.	63
• Table 5-36 (McBSP as SPI Master or Slave Timing Requirements (CLKSTP = 10b, CLKXP = 0)): Added "For all SPI slave modes ..." footnote.	63
• Table 5-38 (McBSP as SPI Master or Slave Timing Requirements (CLKSTP = 11b, CLKXP = 0)): Added "For all SPI slave modes ..." footnote.	64
• Table 5-40 (McBSP as SPI Master or Slave Timing Requirements (CLKSTP = 10b, CLKXP = 1)): Added "For all SPI slave modes ..." footnote.	65
• Table 5-42 (McBSP as SPI Master or Slave Timing Requirements (CLKSTP = 11b, CLKXP = 1)): Added "For all SPI slave modes ..." footnote.	66
• Section 5.9.6.1 (USEREADY = 0): Updated "XTIMING register configuration restrictions" table by changing XRDACTIVE value from "≥ 5" to "≥ 6".	68
• Section 5.9.6.1 (USEREADY = 0): Updated "Examples of valid and invalid timing" table by changing Valid XRDACTIVE value from "5" to "6".	68
• Section 5.9.6.2 (Synchronous Mode (USEREADY = 1, READYMODE = 0)): Updated "XTIMING register configuration restrictions" table by changing XRDACTIVE value from "≥ 5" to "≥ 6" and XWRACTIVE value from "≥ 1" to "≥ 2".	69
• 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 "5" to "6" and Valid XWRACTIVE value from "1" to "2".	69
• Section 5.9.6.3 (Asynchronous Mode (USEREADY = 1, READYMODE = 1)): Updated "XTIMING register configuration restrictions" table by changing XRDACTIVE value from "≥ 5" to "≥ 6"; XWRACTIVE value from "≥ 3" to "≥ 4"; and XWRTRAIL value from "0" to "≥3".	70
• Section 5.9.6.3 (Asynchronous Mode (USEREADY = 1, READYMODE = 1)): Updated "Examples of valid and invalid timing" table by changing Valid XRDACTIVE value from "5" to "6" and Valid XWRACTIVE value from "3" to "4".	70
• Section 5.9.6.4 (XINTF Signal Alignment to XCLKOUT): Updated "For each XINTF access ..." paragraph.	72
• Section 5.9.6.4: Updated "For the case where XCLKOUT = one-half ..." paragraph.	72
• Section 6.1.9 (Security): Updated "Custom secure versions of these devices ..." paragraph.	88
• Section 6.1.9: Added Code Security Module Disclaimer.	88
• Table 6-3 (ePWM1-4 Control and Status Registers): Added reference to footnote for TZSEL, TZCTL, TZEINT, TZCLR, and TZFRC.	97
• Table 6-4 (ePWM5-9 Control and Status Registers): Added reference to footnote for TZSEL, TZCTL, TZEINT, TZCLR, and TZFRC.	98
• Section 6.2.11 (Serial Peripheral Interface (SPI) Module (SPI-A, SPI-D)): Updated "Rising edge with phase delay" clockng scheme.	118
• Figure 6-32 (Watchdog Module): Updated figure.	152
• Section 7 (Applications, Implementation, and Layout): Added section.	154
• Section 8 (Device and Documentation Support): Added section.	155
• Section 8.1 (Getting Started): Updated section.	155
• Figure 8-1 (Example of C2834x Device Nomenclature): Updated figure.	156
• Section 8.3 (Tools and Software): Added section.	157
• Section 8.4 (Documentation Support): Updated section.	159
• Section 9 (Mechanical, Packaging, and Orderable Information): Added section.	163

The datasheet number will be changing.

Device Family	Change From:	Change To:
TMS320C28341 - TMS320C28346	SPRS516D	SPRS516E

These changes may be reviewed at the datasheet links provided.

http://www.ti.com/product/TMS320C28341			
Reason for Change:			
To more accurately reflect device characteristics.			
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):			
Electrical specification performance changes as indicated above.			
Changes to product identification resulting from this PCN:			
None.			
Product Affected:			
TMS320C28341ZHHT	TMS320C28342ZFET	TMS320C28343ZFEQ	TMS320C28343ZHHT
TMS320C28344ZFET	TMS320C28345ZFET	TMS320C28345ZHHT	TMS320C28346ZFEQ
TMS320C28346ZFET			

For questions regarding this notice, e-mails can be sent to the regional 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
Japan	PCNJapanContact@list.ti.com