12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20121012003A
UCC28XX device assembly - CMS C1209104
Final Change Notification – updated 06/21/2013

Date: 6/21/2013
To: MOUSER PCN

Dear Customer:

This version A of the notification includes changes not included in the original. The changes from the original notification are highlighted in yellow.

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

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.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. If you require samples to conduct an evaluation, please request within the 30 days—samples are not built ahead of the change. Please see the schedule on the following pages for sample availability dates. You may contact the PCN Manager or your local Field Sales Representative to acknowledge this PCN and request samples.

The changes discussed within this PCN will not take effect any earlier than the proposed 1st ship date indicated on the following pages, unless customer agreement has been reached on an earlier implementation of the change.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

20121012003A
Attachment: 1

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
UCC2800QDRQ1	null
UCC2801QDRQ1	null
UCC2802QDRQ1	null
UCC2803QDRQ1	null
UCC2805QDRQ1	null
UCC2813QDR-3Q1	null

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

PCN Number:	20121012003A			**PCN Date:**	06/21/2013
Title:	UCC28XX device assembly - CMS C1209104				
Customer Contact:	PCN_ww_admin_team@list.ti.com	**Phone:**	+1(214)480-6037	**Dept:**	Quality Services
Proposed 1st Ship Date:	04/17/2013	**Estimated Sample Availability:**			Upon request
Change Type:					

☒	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☐	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process

PCN Details

Description of Change:

Move assembly from Texas Instruments subcon Millennium Microtech Thailand (MMT) to Texas Instruments Malaysia (MLA) assembly site. The Texas Instruments Malaysia assembly site has been qualified for SOIC assembly for more than 20 years and is currently in high volume production for devices in this package.

Along with the change of assembly sites, the device topside symbolization format and content will change. The content will change from current 8 character maximum to 6 characters maximum. This format and content change eliminates redundant characters and improves the legibility of the final device symbol.

Reason for Change:

Consolidate assembly of SOIC package devices in Texas Instruments factories.

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

No anticipated impact.

Changes to product identification resulting from this PCN:

Current device symbolization format:

```
   Topside Symbol (generic):
      +----------------+           \T/   = TI LOGO
      | \T/ 12345678   |      12345678 = 8 character value
      |     YMS        |           Y   = YEAR
      |O    LLLL G4    |           M   = MONTH
      +----------------+           S   = ASSY SITE CODE
       O = PIN #1                LLLL = ASSY LOT CODE
```

New device symbolization format:

```
   Topside Symbol (generic):
      +----------------+           \T/   = TI LOGO
      |   123456       |        123456 = 6 character value
      |  \Y/  YMS      |           Y   = YEAR
      |O    LLLL       |           M   = MONTH
      +----------------+           S   = ASSY SITE CODE
       O = PIN #1                LLLL = ASSY LOT CODE
```

Device symbolization content changes:

Device	Current 8 character value	New 6 character value
UCC2800QDRQ1	C2800DQ1	C2800
UCC2801QDRQ1	C2801DQ1	C2801
UCC2802QDRQ1	C2802DQ1	C2802
UCC2803QDRQ1	C2803DQ1	C2803
UCC2803QDRSV	UCC2803D	C2803
UCC2804QDRQ1	C2804DQ1	C2804
UCC2805QDRQ1	C2805DQ1	C2805
UCC2813QDR-0Q1	2813-0Q1	2813-0
UCC2813QDR-1Q1	2813-1Q1	2813-1
UCC2813QDR-2Q1	2813-2Q1	2813-2
UCC2813QDR-3Q1	2813-3Q1	2813-3
UCC2813QDR-4Q1	2813-4Q1	2813-4
UCC2813QDR-5Q1	2813-5Q1	2813-5

Current box label:

Assembly site	Assembly site origin (22L)	Assembly country origin (23L)
MMT	ALP	USA

New box label:

Assembly site	Assembly site origin (22L)	Assembly country origin (23L)
TI Malaysia	MLA	MYS

Sample product shipping label (not actual product label)

Product Affected:

UCC2800QDRQ1	UCC2804QDRQ1	UCC2813QDR-3Q1
UCC2801QDRQ1	UCC2805QDRQ1	UCC2813QDR-4Q1
UCC2802QDRQ1	UCC2813QDR-0Q1	UCC2813QDR-5Q1
UCC2803QDRQ1	UCC2813QDR-1Q1	
UCC2803QDRSV	UCC2813QDR-2Q1	

Automotive New Product Qualification Plan/Summary

(As per AEC-Q100 and JEDEC Guidelines)

Supplier Name:	Texas Instruments Inc.	**Supplier Wafer Fabrication Site:**	Texas Instruments Sherman, Texas (SFAB)
Supplier Code:		**Supplier die revision**	G / no revision
Supplier Part Number:	MSA00021DG4 / LM2901QDG4Q1	**Supplier Assembly/Test Site:**	Texas Instruments Malaysia
Customer Name:	Texas Instruments	**Supplier Package/Pin:**	14D / 16D
Customer Part Number:	Catalog / Catalog	**Pb-Free Lead Frame (Y/N):**	Yes
Device Description:	8-Bit binary counter / Quad comparator	**"Green" Mold Compound (Y/N):**	Yes
MSL Rating:	Level1@260C	**Operating Temp Range:**	-40 to 85C / -40 to 125C
Peak Solder Reflow Temp:	260C	**Automotive Grade Level (1):**	Grade 3 / Grade 1
Prepared by:	James Berry	**Date:**	1/15/2008

Test	#	Reference	Test Conditions	Min Lots (2)	SS / lot (2)	Min Total (2)	Results Lot/pass /fail	Generic Family: Part/Comments	Exceptions to AEC - Q100
TEST GROUP A – ACCELERATED ENVIRONMENT STRESS TESTS (3)									
PC	A1	JESD22-113 J-STD-020	Preconditioning: SMD only; Moisture Preconditioning for THB/HAST, AC/UHST, TC, HTSL, and HTOL	Performed on ALL SMD devices prior to THB/HAST, AC/UHST, TC and PTC					
THB or HAST	A2	JESD22-A101 JESD22-A110	Temperature Humidity Bias: 85°C/85%/1000 hours Highly Accelerated Stress Test: 130°C/85%/96 hours or 110°C/85%/264 hours	1 1 1	77 77 77	77 77 77	3/231/0		
AC or UHST	A3	JESD22-A102 JESD22-A118	Autoclave: 121°C/15 psig/96 hours Unbiased Highly Accelerated Stress Test: 130°C/85%/96 hours or 110°C/85%/264 hours	1 1 1	77 77 77	77 77 77	3/231/0		
TC	A4	JESD22-A104	Temperature Cycle: -65°C/+150°C/500 cycles	1 1 1	77 77 77	77 77 77	3/231/0		
PTC	A5	JESD22-A105	Power Temperature Cycling: -40°C/+125°C/1000 cycles	1	45	45	N/A		
HTSL	A6	JESD22-A103	High Temperature Storage Life: 150°C/1000 hours or 175°C/500 hours	1	45	45	1/45/0		
TEST GROUP B – ACCELERATED LIFETIME SIMULATION TESTS (3)									
HTOL	B1	JESD22-A108	High Temp Operating Life: 125°C/1000 hours 150°C/408 hours	1 1 1	77 77 77	77 77 77	3/231/0		
ELFR	B2	AEC-Q100-008	Early Life Failure Rate:	1 1 1	800 800 800	800 800 800		QBS to existing device data	

TEST GROUP C – PACKAGE ASSEMBLY INTEGRITY TESTS (3)

WBS	C1	AEC-Q100-001	Wire Bond Shear Test: (Cpk > 1.67)	30 bonds	5 parts min.	30 bonds	Pass		
WBP	C2	Mil-Std-883 Method 2011	Wire Bond Pull: Each bonder used (Cpk > 1.67)	30 bonds	5 parts min.	30 bonds	Pass		
SD	C3	JESD22-B102	Solderability: (>95% coverage) 8 hr steam age (1 hour for Au-plated leads)	1	15	15	Pass		
PD	C4	JESD22-B100 JESD22-B108	Physical Dimensions: (Cpk > 1.67)	3	10	30	Pass		
SBS	C5	AEC-Q100-010	Solder Ball Shear: (Cpk > 1.67)	5 balls	10 parts min.	50	Pass		
LI	C6	JESD22-B105	Lead Integrity:	10 leads	5 parts min.	50	Pass		

(1) Grade 0 (or A): -40°C to +150°C ambient operating temperature range
Grade 1 (or Q): -40°C to +125°C ambient operating temperature range
Grade 2 (or T): -40°C to +105°C ambient operating temperature range
Grade 3 (or I): -40°C to +85°C ambient operating temperature range
Grade 4 (or C): -0°C to +150°C ambient operating temperature range

(2) These are recommended minimum lot/sample sizes. Lot/sample size may be reduced depending on available data.

(3) Generic data may be used.

Quality and Reliability Data Disclaimer

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customer should provide adequate design and operating safeguards. Quality and reliability data provided by Texas Instruments is intended to be an estimate of product performance based upon history only. It does not imply that any performance levels reflected in such data can be met if the product is operated outside the conditions expressly stated in the latest published data sheet or agreed-to customer specification for a device.

Reliability data shows characteristic failure mechanisms of the specific environmental stress as documented in the industry standards for each stress condition.

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