

<b>PCN Number:</b>	20180925002.2B		<b>PCN Date:</b>	Aug. 6, 2019												
<b>Title:</b>	Transfer of select SOIC devices from ALP to MLA for Assembly and Test															
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services													
<b>Change Type:</b>																
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>												
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>												
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>												
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>												
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>												
				<input type="checkbox"/>												
				Wafer Bump Site												
				Wafer Bump Material												
				Wafer Bump Process												
				Wafer Fab Site												
				Wafer Fab Materials												
				Wafer Fab Process												
<b>PCN Details</b>																
<b>Description of Change:</b>																
Revision B is to update the description of change to provide correction on the marking for UCC2800QDREP device. We apologize for any inconvenience this may have caused.																
This change notification is to announce the transfer of select SOIC devices listed in the "Product Affected" Section from ALP to MLA for Assembly and Test. Current assembly sites and Material differences are as follows.																
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly Site City</th> </tr> </thead> <tbody> <tr> <td>Microchip Technology</td> <td>ALP</td> <td>THA</td> <td>Chachoengsao</td> </tr> <tr> <td><a href="#">TI Malaysia</a></td> <td><a href="#">MLA</a></td> <td><a href="#">MYS</a></td> <td><a href="#">Kuala Lumpur</a></td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	Microchip Technology	ALP	THA	Chachoengsao	<a href="#">TI Malaysia</a>	<a href="#">MLA</a>	<a href="#">MYS</a>	<a href="#">Kuala Lumpur</a>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City													
Microchip Technology	ALP	THA	Chachoengsao													
<a href="#">TI Malaysia</a>	<a href="#">MLA</a>	<a href="#">MYS</a>	<a href="#">Kuala Lumpur</a>													
<b>Material Differences:</b>																
	<b>ALP</b>	<b>MLA</b>														
Mount Compound	14M201001	4147858														
Mold compound	141002067	4211880														
<b>Marking Differences:</b>																
<b>Current</b>		<b>Proposed</b>														
<pre> +-----+ ! \T/ C2800DEP ! !   YMS   ! !O  LLLL G4  ! +-----+  O = PIN #1 </pre>		<pre> +-----+ ! \T/ C2800D  ! !   EP YMS   ! !O  LLLL G4  ! +-----+  O = PIN #1 </pre>														
<pre> \T/ = TI LOGO Y   = YEAR M   = MONTH S   = ASSY SITES       PER QSS 005-120 LLLL = ASSY LOT CODE G4   MUST BE SYMBOLIZED       WITH AN UNDERSCORE </pre>		<pre> \T/ = TI LOGO Y   = YEAR M   = MONTH S   = ASSY SITES       PER QSS 005-120 LLLL = ASSY LOT CODE G4   MUST BE SYMBOLIZED       WITH AN UNDERSCORE </pre>														
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.																
<b>Reason for Change:</b>																
ALP shutting down 8pin SOIC production line by end Dec 2018																
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																
None																
<b>Anticipated impact on Material Declaration</b>																
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the <a href="#">TI Eco-Info website</a> . There is no impact to the material meeting current regulatory compliance requirements													

with this PCN change.

**Changes to product identification resulting from this PCN:**

Assembly Site		
Microchip Technology	Assembly Site Origin (22L)	ASO: ALP
TI Malaysia	Assembly Site Origin (22L)	ASO: <b>MLA</b>

Sample product shipping label (not actual product label)

**TEXAS INSTRUMENTS**  
 MADE IN: Malaysia  
 2DC: 2Q:  
 MSL 2 /260C/1 YEAR SEAL DT  
 MSL 1 /235C/UNLIM 03/29/04  
 OPT:  
 ITEM: 39  
**LBL: 5A (L)T0:1750**

(Pb) G4  
 (1P) SN74LS07NSR  
 (Q) 2000 (D) 0336  
 (31T) LOT: 3959047MLA  
 (4W) TKY (1T) 7523483SI2  
 (P)  
 (2P) REV: (V) 0033317  
 (20L) CSO: SHE (21L) CC0:USA  
 (22L) ASO: **MLA** (23L) ACO: MYS

**Product Affected:**

UC1842AMDREP	<b>UCC2800QDREP</b>	V62/03624-07XE	UCC2805QDREP
UC1843AMDREP	V62/03624-01XE	UCC2801MDREP	V62/03624-08XE
UC1843AMDREPG4	V62/03624-02XE	UCC2801QDREP	V62/03624-09XE
UC1844AMDREP	V62/03624-03XE	UCC2802QDREP	V62/03625-01YE
UC1845AMDREP	V62/03624-04XE	UCC2803MDREP	V62/03625-02YE
UC1845AMDREPG4	V62/03624-05XE	UCC2803QDREP	V62/03625-03YE
UCC2800MDREP	V62/03624-06XE	UCC2804QDREP	V62/03625-04YE

**Qualification Report**  
**MMT Offload Qualification for SOIC Devices**  
 Approve Date 24-Sep-2018

**Product Attributes**

Attributes	Qual Device: <u>AM26C32MDREP</u>	Qual Device: <u>UC1843AMDREP</u>	Qual Device: <u>UCC2801MDREP</u>	QBS Package Reference: <u>PCM1801U</u>	QBS Package Reference: <u>SN65HVD1780DR</u>	QBS Package Reference: <u>TL598CDR</u>	QBS Package Reference: <u>TPS2419DR</u>
Assembly Site	FMX	MLA	MLA	MLA	MLA	FMX	FMX
Package Family	SOIC	SOIC	SOIC	SOIC	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	SFAB	SFAB	TSMC WF2	DMOS5	SFAB	MIHO
Wafer Fab Process	IMPC60-80	J1-PWR1	IMP-PWR1	0.6-DPDM	LBC5X	J11	LBC7

- QBS: Qual By Similarity
- Qual Devices AM26C32MDREP, UC1843AMDREP, UCC2801MDREP are qualified at LEVEL1-260CG

## Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: <u>AM26C32MDREP</u>	Qual Device: <u>UC1843AMDREP</u>	Qual Device: <u>UCC2801MDREP</u>	QBS Package Reference: <u>PCM1801U</u>
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0	1/77/0	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	1/77/0	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	1/77/0	-	1/77/0	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	1/77/0	1/77/0	3/231/0
VM	Visual / Mechanical	(per mfg. Site specification)	1/328/0	1/328/0	1/328/0	3/328/0
WBP	Bond Pull	Wires	1/76/0	1/76/0	1/76/0	3/76/0
WBS	Ball Bond Shear	Wires	1/76/0	1/76/0	1/76/0	3/76/0

Type	Test Name / Condition	Duration	QBS Package Reference: <u>SN65HVD1780DR</u>	QBS Package Reference: <u>TL598CDR</u>	QBS Package Reference: <u>TPS2419DR</u>
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0
VM	Visual / Mechanical	(per mfg. Site specification)	3/328/0	3/328/0	3/328/0
WBP	Bond Pull	Wires	3/76/0	3/76/0	3/76/0
WBS	Ball Bond Shear	Wires	3/76/0	3/76/0	3/76/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours

- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours

- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

**Green/Pb-free Status:**

Qualified Pb-Free(SMT) and Green

THIS INFORMATION RELATING TO QUALITY AND RELIABILITY IS PROVIDED "AS IS." Product information detailed in this report may not accurately reflect TI's current product materials, processes and testing used in the construction of the TI products. Customers are solely responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications. Using TI products outside limits stated in TI's datasheet may void TI's warranty. See TI's Terms of Sale at "<http://www.ti.com/lscs/ti/legal/termsofsale.page>"

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