

<b>PCN Number:</b>	20140826000A		<b>PCN Date:</b>	10/02/2014	
<b>Title:</b>	Qualification of RFAB and TI Clark as Additional Fab Site and Assembly/Test Site Options for select DRV2603 devices				
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Phone:</b>	+1(214)480-6037	<b>Dept:</b> Quality Services	
<b>*Proposed 1<sup>st</sup> Ship Date:</b>	12/02/2014	<b>Estimated Sample Availability:</b>	Date Provided at Sample request		
<b>Change Type:</b>					
<input checked="" type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
		<input type="checkbox"/>	Part number change		
<b>PCN Details</b>					
<b>Description of Change:</b>					
<p>The purpose of Revision A is to retract the DRV2603RUNR/T device which was included in error. This device was previously qualified and communicated in PCN20130116001. The retracted device is highlighted in the Product Affected Section in bold font with a <del>strikethrough</del>.</p> <p>This change notification is to announce the addition of RFAB and TI Clark as additional Fab site and Assembly/Test site options for select DRV2603 devices. The affected devices are listed in the Product Affected Section.</p>					
<b>Fab Site:</b>					
Current Site/Process/Wafer Diameter		Additional Site/Process/Wafer Diameter			
UMC-F8E/LBC8 Process/200mm		RFAB/LBC8 Process/300mm			
<b>Assembly Site:</b> There are no material set differences between MLA and TI-Clark. Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.					
<b>Reason for Change:</b>					
Continuity of supply.					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
None					

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

**Fab Site**

Current Chip Site	Chip Site Code (20L)	Chip Country Code (21 L)
UMC-F8E	CSO: U8E	JPN
New Chip Site	Chip Site Code (20L)	Chip Country Code (21 L)
RFAB	CSO: RFB	USA

**Assembly Site**

Current Assembly Site	Assembly Site Origin (22L)	ASO: MYS
MLA	Assembly Site Origin (22L)	ASO: QAB
Clark-AT	Assembly Site Origin (22L)	ASO: QAB

**Sample Product Shipping Label (not actual product label)**

**ASSEMBLY SITE CODES: TI CLARK =I**

**Product Affected Devices**

DRV2603CRUNR	<b>DRV2603RUNR</b>	<b>DRV2603RUNT</b>	DRV2603V1RUNR
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**Qualification Report**

**New LBC8LV fab components in RFAB**

**Approved 09/17/2013**

Attributes	Qual Device: DRV2603RUN	QBS Process: SH8350BCA0PAPG4_TIPI
Assembly Site	CLARK-AT	PHI
Package Family	QFN	TQFP
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB
Wafer Fab Process	LBC8LV	LBC8LV

- QBS: Qual By Similarity
- Qual Device DRV2603RUN is qualified at LEVEL2-260C

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

Type	Test Name / Condition	Duration	Qual Device: DRV2603RUN	QBS Process: SH8350BCA0PAPG4_TIP1
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
AC	Autoclave 121C	96 Hours	-	3/231/0
TC	Temperature Cycle - 65/150C	500 Cycles	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	3/231/0
HTOL	Life Test, 125C	1000 Hours	-	3/224/0
HTOL	Life Test, 140C	480 Hours	3/231/0	-
HBM	ESD - HBM	1000 V	3/9/0	3/15/0
CDM	ESD - CDM	250 V	3/9/0	3/15/0
LU	Latch-up	(per JESD78)	3/18/0	3/24/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass

- 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

**Qualification Report**

**B-Stage Epoxy Ablestik 8006NS Enterprise Qual for QFN/SON package in Clark for DRV2603RUNR**

Attributes	Qual Device: DRV2603RUNR	Qual Device: TPS71745DSER
<b>Assembly Site</b>	CLARK AT	CLARK AT
<b>Package Family</b>	WQFN	WSON
<b>Flammability Rating</b>	UL 94 V-0	UL 94 V-0
<b>Wafer Fab Supplier</b>	RFAB	MIHO 8
<b>Wafer Fab Process</b>	LBC8LV	LBC7

## Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: DRV2603RUNR	Qual Device: TPS71745DSER
HAST	Biased HAST, 130C/85%RH	96 Hours	-	2/153/0
AC	Autoclave 121C	96 Hours	3/231/0	-
TC	Temperature Cycle, -65/+150C	500 Cycles	3/231/0	-
HTSL	High Temp Storage Bake, 150C	1000 Hours	3/231/0	-
MQ	Manufacturability	(per mfg. Site specification)	Pass	-
MSL	Thermal Path Integrity	Level 2 @ 260C	1/12/0	-
MSL	Moisture Sensitivity Level	Level 1 @ 260C	-	-
VM	Visual Quality Reliability Inspection	Pre-Stress	3/6/0	-
VM	Visual Quality Reliability Inspection	Post Temp Cycle	3/6/0	-

- 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

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	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
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Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>