

<b>PCN Number:</b>	20161027001A	<b>PCN Date:</b>	Nov 30, 2016
<b>Title:</b>	Transfer of select C10 devices from ANAM-1 to DMOS5 Wafer Fab site		
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Feb 28, 2017	<b>Estimated Sample Availability:</b>	Date provided at sample request.
<b>Change Type:</b>			
<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Assembly Materials	
<input type="checkbox"/> Design	<input type="checkbox"/> Electrical Specification	<input type="checkbox"/> Mechanical Specification	
<input 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		

### PCN Details

**Description of Change:**

**The purpose of this Rev A PCN is to add additional devices to the product affected section of this document. Additional devices are shown as bold with a yellow highlight.**

This change notification is to announce the transfer of select devices from ANAM-1 to the DMOS5 Wafer Fab site. Fab support from ANAM-1 is being discontinued for the products listed in the product affected section of this document. Production at ANAM-1 will stop on February 28, 2017. Customers are advised to place their orders immediately to ensure fulfillment. Any orders placed after this date will be supported with DMOS5 material.

Current (Discontinued)			New (Transfer to Location)		
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter
ANAM-1	C10	200mm	DMOS5	C10	200mm

**Reason for Change:**

Continuity of Supply

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

None

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

**Current:**

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
ANAM-1	ANM	KOR	Bucheon-si

**New:**

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
<b>DP1DM5</b>	<b>DM5</b>	<b>USA</b>	<b>Dallas</b>

Sample product shipping label (not actual product label)



MADE IN: Malaysia  
2DC: 20:

MSL '2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT:  
ITEM: 39

**LBL: 5A (L)T0:1750**



(1P) SN74LS07NSR  
(Q) 2000 (D) 0336  
(31T) LOT: 3959047MLA  
(4W) TKY (1T) 7523483S12  
(P)  
(2P) REV: (V) 0033317  
(20L) CS0: SHP (21L) CCO: USA  
(22L) AS0: MLA (23L) AC0: MYS

**Product Affected:**

<b>CDCLVD110ARHBR</b>	CDCV304PW	<b>TLK2201BIRCPRG4</b>	<b>TUSB2046BIRHBRG4</b>
<b>CDCLVD110ARHBRG4</b>	CDCV304PWG4	<b>TLK2201BRCP</b>	<b>TUSB2046BIRHBT</b>
<b>CDCLVD110ARHBT</b>	CDCV304PWR	<b>TLK2201BRCPG4</b>	<b>TUSB2046BIRHBTG4</b>
<b>CDCLVD110ARHBTG4</b>	CDCV304PWRG4	<b>TLK2201BRCP</b>	<b>TUSB2046BVF</b>
<b>CDCLVD110AVF</b>	<b>TLK2201BIRCP</b>	<b>TLK2201BRCPRG4</b>	<b>TUSB2046BVFG4</b>
<b>CDCLVD110AVFG4</b>	<b>TLK2201BIRCPG4</b>	<b>TUSB2046BIRHB</b>	<b>TUSB2046BVFR</b>
<b>CDCLVD110AVFR</b>	<b>TLK2201BIRCP</b>	<b>TUSB2046BIRHBR</b>	<b>TUSB2046BVFRG4</b>
<b>CDCLVD110AVFRG4</b>			

**Qualification Report**

**CDCV304: Qualification of alternative FAB (DMOS5)**

Approve Date 04-Dec-2015

**Product Attributes**

Attributes	Qual Device: CDCV304	QBS Product Reference: CDCV304	QBS Process Reference: SN74AVC16T245DGGR	QBS Package Reference: CDCVF2505PW	QBS Package Reference: LMV324PWR	QBS Package Reference: RC4558PWR	QBS Package Reference: SN0508073PW
Wafer Fab Supplier	DMOS5	DMOS5	CFAB	ANAM-1	FFAB	SFAB	MLA
Wafer Process	33C10	33C10	33C10	33C10	BCB	JI-SLM	LBC4X
Assembly Site	MLA	MLA	MLA	MLA	ASE SHANGHAI	MLA (TIM)	MLA
Package Family	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP

- QBS: Qual By Similarity  
 - Qual Device CDCV304 is qualified at LEVEL1-260C

**Qualification Results**

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

Type	Test Name / Condition	Duration	Qual Device: CDCV304	QBS Product Reference: CDCV304	QBS Process Reference: SN74AVC16T245DGGR	QBS Package Reference: CDCVF2505PW	QBS Package Reference: LMV324PWR	QBS Package Reference: RC4558PWR	QBS Package Reference: SN0508073PW
AC	Autoclave 121C	96 Hours	-	1/77/0	3/231/0	3/231/0	-	1/77/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	-	Pass	Pass	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0	-	2/154/0	1/77/0	-
HAST	Biased HAST, 130C/85%RH	192 Hours	-	-	-	-	2/154/0	-	-
HBM	ESD - HBM	2500 V	1/3/0	1/3/0	3/9/0	-	-	-	-
CDM	ESD - CDM	1000 V	1/3/0	1/3/0	3/9/0	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	-	-	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	3/231/0	1/77/0	-	3/231/0
HTOL	High Temp Operating Life, 150C	300 Hours	-	-	3/231/0	-	-	-	-
LU	Latch-up	(per JESD78)	1/6/0	-	3/18/0	-	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0	-	1/77/0	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	3/231/0	-	-	3/231/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-	-	1/77/0	-	-
WBP	Bond Strength	Wires	-	-	3/228/0	-	2/154/0	1/76/0	-
MQ	Manufacturability	(per mfg. Site specification)	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

### TUSB2046B in DMOS5 (C10 offload from Dongbu to DMOS5) Approve Date 15-Nov-2016

#### Product Attributes

Attributes	Qual Device: TUSB2046BIRHB	Qual Device: TUSB2046BVF	QBS Process Reference: TLK2500IRCP
Assembly Site	MLA	PHI	PHI
Package Family	QFN	LQFP	HTQFP
Wafer Fab Supplier	DMOS5	DMOS5	DMOS5
Wafer Fab Process	33C10	33C10	25C10

- QBS: Qual By Similarity
- Qual Device TUSB2046BIRHB is qualified at LEVEL2-260C
- Qual Device TUSB2046BVF is qualified at LEVEL3-260C

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TUSB2046BIRHB	Qual Device: TUSB2046BVF	QBS Process Reference: TLK2500IRCP
AC	Autoclave 121C	96 Hours	-	-	3/231/0
CDM	ESD - CDM	1500 V	-	1/3/0	-
ED	Electrical Characterization	Per Data Sheet Parameters	-	Pass	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HBM	ESD - HBM	4000 V	-	1/3/0	-
HTOL	Life Test, 155C	240 Hours	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	3/135/0
LU	Latch-up	( Per JESD78 )	-	1/6/0	-
TS	Thermal Shock -65/150C	500 Cycles	-	-	3/231/0
WBP	Bond Pull	Wires	1/76/0	1/76/0	-
WBS	Ball Bond Shear	Wires	1/76/0	1/76/0	-

- 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

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

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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>