

<b>PCN Number:</b>	20140701001	<b>PCN Date:</b>	07/08/2014													
<b>Title:</b>	Qualification of DMOS6, TI Clark and TI Malaysia as additional Fab site and Assembly/Test site options for select 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>	10/08/2014	<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 checked="" 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>This change notification is to announce the addition of DMOS6, TI Clark and TI Malaysia as additional Fab site and Assembly/Test site options for select devices. Material differences as follows.</p> <p><b>Group 1 Devices: Fab Site &amp; Assembly Site change</b></p> <p><b>Fab Site:</b></p> <table border="1"> <thead> <tr> <th>Current Site/Process</th> <th>Additional Site/Process</th> </tr> </thead> <tbody> <tr> <td>UMC-F12/C027A Process</td> <td>DMOS6/C027A Process</td> </tr> </tbody> </table> <p><b>Assembly Site:</b></p> <table border="1"> <tbody> <tr> <td>Material</td> <td>NSE</td> <td>TI-Clark</td> </tr> <tr> <td>Wire Type</td> <td>Au (1.0mil)</td> <td>Cu (0.8mil)</td> </tr> <tr> <td>Mount compound</td> <td>PZ0031</td> <td>4207123</td> </tr> </tbody> </table> <p><b>Group 2 Devices: Assembly &amp; Test Site change</b></p> <ul style="list-style-type: none"> <li>No material set differences between sites</li> <li>Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.</li> </ul>				Current Site/Process	Additional Site/Process	UMC-F12/C027A Process	DMOS6/C027A Process	Material	NSE	TI-Clark	Wire Type	Au (1.0mil)	Cu (0.8mil)	Mount compound	PZ0031	4207123
Current Site/Process	Additional Site/Process															
UMC-F12/C027A Process	DMOS6/C027A Process															
Material	NSE	TI-Clark														
Wire Type	Au (1.0mil)	Cu (0.8mil)														
Mount compound	PZ0031	4207123														
<b>Reason for Change:</b>																
Continuity of supply.																
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																
None																
<b>Changes to product identification resulting from this PCN:</b>																

**Group 1 Devices: Fab Site & Assembly Site change**

**Fab Site**

Current Chip Site	Chip Site Code (20L)	Chip Country Code (21 L)
UMC-F12	CSO: F12	USA
New Chip Site	Chip Site Code (20L)	Chip Country Code (21 L)
DMOS6	CSO: DM6	USA

**Assembly Site**

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

**Group 2 Devices: Assembly & Test Site change**

Current Assembly Site		
TI Mexico	Assembly Site Origin (22L)	ASO: MEX
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA

**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**

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

**ASSEMBLY SITE CODES:**

- Group 1 Devices: NSE = J, TI CLARK =I
- Group 2 Devices: MEX = M, MLA = K
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**Group 1 : Product Affected Devices**

SN75DP130DSRGZR	SN75DP130DSRGZT	SN75DP130SSRGZR	SN75DP130SSRGZT
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**Group 2 : Product Affected Devices**

SN65HVD3082EDR	UCC27324DR	UCC27424DR
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**Qualification Data: Group 1 Devices**

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

**Qual Vehicle : SN75DP130DSRGZR (MSL 3-260C)**

**Package Construction Details**

Assembly Site:	TI Clark	Mold Compound:	4208625
# Pins-Designator, Family:	48-RGZ, QFN	Mount Compound:	4207123
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.80 Mil Dia., Cu

<b>Qualification:</b> <input type="checkbox"/> <b>Plan</b> <input checked="" type="checkbox"/> <b>Test Results</b>				
Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot3
Electrical Characterization	-	Pass	-	-
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Life Test	125C (1000 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	79/0	80/0	80/0
ESD - HBM	1000V	3/0	3/0	3/0
ESD - CDM	250V	3/0	3/0	3/0
Early Life Failure Rate	125C (48 Hrs)	612/0	620/0	620/0
Moisture Sensitivity	L3-260C	14/0	-	-
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	Pass	Pass
**- Preconditioning sequence: Level 3-260C.				
<b>Qualification Data: Group 2 Devices</b>				
This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.				
<b>Qual Vehicle 1: SN65HVD3082EDR (MSL 1-260C)</b>				
<b>Package Construction Details</b>				
Assembly Site:	TI Malaysia	Mold Compound:	4211880	
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.95 Mil Dia., Cu	
<b>Qualification:</b> <input type="checkbox"/> <b>Plan</b> <input checked="" type="checkbox"/> <b>Test Results</b>				
Reliability Test	Conditions	Sample Size / Fail		
**Temp Cycle, -65C/150C	500 Cycles	80/0		
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass		
**- Preconditioning sequence: Level 1-260C.				
<b>Qual Vehicle 2: UCC27424DR (MSL 1-260C)</b>				
<b>Package Construction Details</b>				
Assembly Site:	TI Malaysia	Mold Compound:	4211880	
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500	
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.95 Mil Dia., Cu	
<b>Qualification:</b> <input type="checkbox"/> <b>Plan</b> <input checked="" type="checkbox"/> <b>Test Results</b>				
Reliability Test	Conditions	Sample Size / Fail		
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass		

Qual Vehicle 3: UCC27324DR (MSL 1-260C)					
Package Construction Details					
Assembly Site:	TI Malaysia	Mold Compound:	4211880		
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500		
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.95 Mil Dia., Cu		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions		Sample Size / Fail		
Manufacturability Qualification (MQ)	(per mfg. Site specification)		Pass		
Reference Qualification Data (Group 2 Devices)					
This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.					
Qual Vehicle 1: OPA2330AIDR (MSL 2-260C)					
Package Construction Details					
Assembly Site:	TI Malaysia	Mold Compound:	4211880		
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500		
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.96 Mil Dia., Cu		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions		Sample Size / Fail		
			Lot 1	Lot 2	Lot3
**Temp Cycle, -65C/150C	500 Cycles		77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)		77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)		77/0	77/0	77/0
Moisture Sensitivity	L2-260C		12/0	12/0	12/0
Manufacturability Qualification (MQ)	(per mfg. Site specification)		Pass	Pass	Pass
**- Preconditioning sequence: Level 2-260C.					
Qual Vehicle 2: MAX232DR (MSL 1-260C)					
Package Construction Details					
Assembly Site:	TI Malaysia	Mold Compound:	4211880		
# Pins-Designator, Family:	16-D, SOIC	Mount Compound:	4042500		
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.96 Mil Dia., Cu		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions		Sample Size / Fail		
			Lot 1	Lot 2	Lot3
Electrical Characterization	-		Pass	-	-
**Temp Cycle, -65C/150C	500 Cycles		77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)		77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)		77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)		77/0	77/0	77/0
**Life Test	150C (300 Hrs)		77/0	77/0	77/0
Flammability	(UL 94V-0)		5/0	5/0	5/0
Flammability	(IEC 695-2-2)		5/0	5/0	5/0
Flammability	(UL-1694)		5/0	5/0	5/0
X-ray	(top side only)		5/0	5/0	5/0
Moisture Sensitivity	L1-260C		12/0	12/0	12/0
Manufacturability Qualification (MQ)	(per mfg. Site specification)		Pass	Pass	Pass
**- Preconditioning sequence: Level 1-260C.					

<b>Qual Vehicle 3: TS12A4517DR (MSL 1-260C)</b>					
<b>Package Construction Details</b>					
Assembly Site:	TI Malaysia	Mold Compound:	4211880		
# Pins-Designator, Family:	8-D, SOIC	Mount Compound:	4042500		
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.96 Mil Dia., Cu		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Sample Size / Fail			
		Lot 1	Lot 2	Lot3	
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0	
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0	
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
Solderability	Pb Free	22/0	22/0	22/0	
Moisture Sensitivity	L1-260C	12/0	12/0	12/0	
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	Pass	Pass	
**- Preconditioning sequence: Level 1-260C.					
<b>Qual Vehicle 4: SN74LVC86ADR (MSL 1-260C)</b>					
<b>Package Construction Details</b>					
Assembly Site:	TI Malaysia	Mold Compound:	4211880		
# Pins-Designator, Family:	14-D, SOIC	Mount Compound:	4042500		
Leadframe (Finish, Base):	NiPdAu	Bond Wire:	0.96 Mil Dia., Cu		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test	Conditions	Sample Size / Fail			
		Lot 1	Lot 2	Lot3	
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0	
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0	
Moisture Sensitivity	L1-260C	12/0	12/0	12/0	
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	Pass	Pass	
**- Preconditioning sequence: Level 1-260C.					

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

<b>Location</b>	<b>E-Mail</b>
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
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>