



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**PCN# 20130429000**  
**Qualification of RFAB, FFAB and MIHO8 as additional**  
**FAB site options for select devices**  
**Change Notification / Sample Request**

**Date:** 5/6/2013  
**To:** MOUSER PCN

Dear Customer:

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

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)).

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

**20130429000**  
**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
BQ24190RGET	null
BQ24192IRGET	null
BQ24192RGET	null
BQ24195RGET	null
BQ24196RGET	null
BQ51013BRHLT	null
BQ51013BYFPT	null
BQ51050BRHLT	null
BQ51050BYFPT	null
BQ51051BRHLT	null
BQ51051BYFPT	null
TPA6012A4PWP	null
TXS0206-29YFPR	null
TXS0206-29YFPRB	null
TXS02326AMRGER	null

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

<b>PCN Number:</b>	20130429000			<b>PCN Date:</b>	05/06/2013																								
<b>Title:</b>	Qualification of RFAB, FFAB and MIHO8 as additional FAB 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>	08/06/2013		<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																								
<b>PCN Details</b>																													
<b>Description of Change:</b>																													
<p>This notification is to announce the qualification of RFAB, FFAB and MIHO8 as an additional FAB site for select devices as shown below:</p> <p><b>Device Groups: (Affected devices in Product Affected Section)</b></p> <table border="1"> <tr> <td colspan="2"><b>Group 1: Adding RFAB</b></td> </tr> <tr> <td>Site, Process, Wafer diameter</td> <td><b>Additional Site, Process, Wafer Dia.</b></td> </tr> <tr> <td>FFAB, LBC7, 200mm</td> <td>RFAB, LBC7, 300mm</td> </tr> <tr> <td colspan="2"><b>Group 2: Adding FFAB</b></td> </tr> <tr> <td>Site, Process, Wafer diameter</td> <td><b>Additional Site, Process, Wafer Dia.</b></td> </tr> <tr> <td>RFAB, LBC7, 300mm</td> <td>FFAB, LBC7, 200mm</td> </tr> <tr> <td colspan="2"><b>Group 3: Adding MIHO8</b></td> </tr> <tr> <td>Site, Process, Wafer diameter</td> <td><b>Additional Site, Process, Wafer Dia.</b></td> </tr> <tr> <td>RFAB, LBC7, 300mm</td> <td>MIHO8, LBC7, 200mm</td> </tr> <tr> <td colspan="2"><b>Group 4: Adding MIHO8</b></td> </tr> <tr> <td>Site, Process, Wafer diameter</td> <td><b>Additional Site, Process, Wafer Dia.</b></td> </tr> <tr> <td>MIHO6, 50A12, 150mm</td> <td>MIHO8, 50A12, 200mm</td> </tr> </table> <p>The LBC7 process was previously qualified at RFAB on 10/06/2010, at FFAB on 10/31/2007, and at MIHO on 1/14/2005. The 50A12 process was previously qualified at MIHO8 on 4/16/2009. Qualification details are shown in the Qual Data Section of this document.</p>						<b>Group 1: Adding RFAB</b>		Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>	FFAB, LBC7, 200mm	RFAB, LBC7, 300mm	<b>Group 2: Adding FFAB</b>		Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>	RFAB, LBC7, 300mm	FFAB, LBC7, 200mm	<b>Group 3: Adding MIHO8</b>		Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>	RFAB, LBC7, 300mm	MIHO8, LBC7, 200mm	<b>Group 4: Adding MIHO8</b>		Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>	MIHO6, 50A12, 150mm	MIHO8, 50A12, 200mm
<b>Group 1: Adding RFAB</b>																													
Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>																												
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Site, Process, Wafer diameter	<b>Additional Site, Process, Wafer Dia.</b>																												
MIHO6, 50A12, 150mm	MIHO8, 50A12, 200mm																												
<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:**

Chip Site:

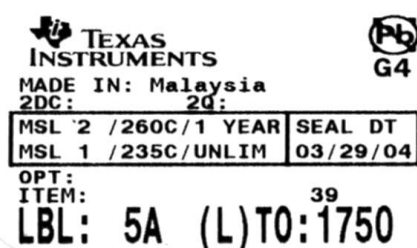
**Current**

Chip Site	Chip site code (20L)	Chip country code (21L)
RFAB	RFB	USA
FR-BIP-1	TID	DEU
MIHO6	MH6	JPN

**New**

Chip Site	Chip site code (20L)	Chip country code (21L)
RFAB	RFB	USA
FR-BIP-1	TID	DEU
MIHO8	MH8	JPN

Sample product shipping label (not actual product label)



(1P) SN74LS07NSR  
(Q) 2000 (D) 0336  
(31T) LOT: 3959047MLA  
(4W) TKY (1T) 7523483SI2  
(P)  
(2P) REV: (V) 0033317  
(20L) CS0: SHP (21L) CC0: USA  
(22L) AS0: MLA (23L) AC0: MYS

**Product Affected:****Group 1: Adding RFAB (LBC7)**

BQ24190RGER	BQ24192IRGET	BQ24195LRGER	BQ24196RGET
BQ24190RGET	BQ24192RGER	BQ24195LRGET	TXS0206-29YFPR
BQ24192HRGER	BQ24192RGET	BQ24195RGER	TXS0206-29YFPRB
BQ24192HRGET	BQ24192SRGER	BQ24195RGET	TXS02326AMRGER
BQ24192IRGER	BQ24192SRGET	BQ24196RGER	

**Group 2: Adding FFAB (LBC7)**

BQ51003YFPR	BQ51013BRHLR	BQ51050BRHLR	BQ51051BYFPR
BQ51003YFPT	BQ51013BRHLT	BQ51050BRHLT	BQ51051BYFPT
BQ51005YFPR	BQ51013BYFPR	BQ51050BYFPR	SN25048YFPR
BQ51005YFPT	BQ51013BYFPT	BQ51050BYFPT	SN25048YFPT
BQ51010BYFPR	BQ51014BYFPR	BQ51051BRHLR	SN51013BRHLR
BQ51010BYFPT	BQ51014BYFPT	BQ51051BRHLT	SN51013BRHLT

**Group 3: Adding MIHO8 (LBC7)**

TPS65913B2B5YFFR	TPS65913B2B6YFFT	TPS65913B2C4YFFR	BQ24735FRGRR
TPS65913B2B5YFFT	TPS65913B2B8YFFR	TPS65913B2C4YFFT	BQ24735FRGRT
TPS65913B2B6YFFR	TPS65913B2B8YFFT		

**Group 4: Adding MIHO8 (50A12)**

TPA6012A4PWP	TPA6012A4PWPR	
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## Reference Qualification Data: LBC7 Process at FFAB

### Qualification Data: (Approved: 10/31/2007)

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

#### Qualification Device: TCA6416PW

Wafer Fab Site:	FFAB	Metallization:	TiN/AlCu.5/TiN		
Wafer Fab Process:	LBC7	Wafer diameter:	200mm		
<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	Lot#3
** Steady-State Life Test 150C		300 Hrs	116/0	116/0	116/0
**Biased HAST, 130C/85%RH		96 hours	77/0	77/0	77/0
**Autoclave 121C		96 Hrs	77/0	77/0	77/0
**Temp Cycle -65C/+150C		1000 Cycles	77/0	77/0	77/0
**High Temp. Storage Bake 150C		1000 Hours	77/0	77/0	77/0
ESD HBM		1000V	3/0	-	-
ESD CDM		250V	3/0	-	-
Latch-up		(per JESD78, Class II)	9/0	-	-
Electrical Char		Per datasheet spec	Pass	Pass	Pass
Manufacturability		(approved by mfg. site)	Pass	Pass	Pass
**Preconditioning: MSL 1@260C					

## Reference Qualification Data: LBC7 Process at RFAB

### Qualification Data: (Approved: 10/06/2010)

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

#### Qualification Device: TPS51217DSC

Wafer Fab Site:	RFAB	Metallization:	TiN/AlCu.5/TiN		
Wafer Fab Process:	LBC7	Wafer diameter:	300mm		
<b>Qualification:</b> <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results					
Reliability Test		Conditions	Sample Size /Fail Lot#1   Lot#2   Lot#3		
Electrical Characterization		Per datasheet spec	Pass	Pass	Pass
Latch-up		(per JESD78)	6/0	6/0	6/0
**Biased HAST		130C/85%RH (96 Hrs)	77/0	77/0	77/0
Post Temp Cycle SAM		CSAM and TSAM analysis after 1000 cycles Temp cycle	Pass	Pass	Pass
ESD HBM		1000V	3/0	3/0	3/0
ESD CDM		250V	3/0	3/0	3/0
High Temp. Storage Bake		170C (168, 420 Hrs)	77/0	77/0	77/0
**Autoclave 121C		121C, (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C		-65C/+150C (500, 1000 Cycles)	77/0	77/0	77/0
Steady-state Life Test (See Note 1)		135C (110, 320, 635 Hrs)	77/0	77/0	77/0
**Preconditioning: MSL 2@260C					

Note 1: Life test equivalent conditions

- 125C, 1000hrs
- 135C, 635hrs
- 140C, 480hrs
- 150C, 300hrs

## Reference Qualification Data: LBC7 Process at MIHO8

### Qualification Data: (Approved 01/14/2005)

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

#### Qual Vehicle: TPS62110RSA

Wafer Fab Site:	MIHO8	Metallization:	TiN/AlCu.5/TiN
Wafer Fab Process:	LBC7	Die Protective Coating:	Oxynitride 8000A

**Qualification:** ☐ Plan ☒ Test Results

Reliability Test	Conditions	Sample Size /Fail		
		Lot#1	Lot#2	Lot#3
**Life Test, 140C	480 Hours	130/0	130/0	130/0
**HAST 130C/85%RH	96 Hours	77/0	77/0	77/0
**Autoclave, 121C	240 Hours	77/0	77/0	77/0
**Thermal Shock, -65/150C	1000 Cycles	77/0	77/0	77/0
**Temp Cycle, -65/+150C	1000 Cycles	77/0	77/0	77/0
**High-Temp Storage, 170C	420 hours	77/0	77/0	77/0
ESD HBM	1000V	3/0	3/0	3/0
ESD CDM	250V	3/0	3/0	3/0
Latch-up @ 70C	(per JESD78)	5/0	5/0	5/0
Electrical Characterization	Per datasheet spec	PASS	PASS	PASS
Manufacturability	Wafer Fab Approved	PASS	PASS	PASS
Manufacturability	Assembly Site Approved	PASS	PASS	PASS

\*\*Preconditioning: MSL 2@260C

## Reference Qualification Data: 50A12 Process at MIHO8

### Qualification Data: (Approved 04/16/2009)

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

#### Qual Vehicle: TLV5630IDW

Wafer Fab Site:	MIHO8	Metallization:	TiW/AlCu.5
Wafer Fab Process:	50A12	Die Protective Coating:	12KACN

**Qualification:** ☐ Plan ☒ Test Results

Reliability Test	Conditions	Sample Size (PASS/FAIL)		
		Lot#1	Lot#2	Lot#3
Life Test	125C, 1000 Hrs	112/0	112/0	112/0
Biased Temp Humidity	85C/85%RH(500 Hrs)	77/0	77/0	77/0
Autoclave*	+121C, 240 Hrs.	77/0	77/0	77/0
**Temp Cycle	-65/+150C, 1000 cycles	77/0	77/0	77/0
**Thermal Shock	-65/150C, 1000 Cycles	77/0	77/0	77/0
High Temp Storage Bake	+150C, 1000 Hrs.	77/0	77/0	77/0
ESD HBM	1000V	3/0	3/0	3/0
ESD CDM	250V	3/0	3/0	3/0

\*\*Preconditioning: MSL 1@260C

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.

Location	E-Mail
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>