

PCN Number:	20170602000		PCN Date:	June 5 2017												
Title:	Qualification of PTI as an additional BUMP and Assembly site for select Devices															
Customer Contact:	PCN Manager	Dept:	Quality Services													
Proposed 1st Ship Date:	Sept 5 2017	Estimated Sample Availability:	Provided upon Request													
Change Type:																
<input checked="" 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 checked="" type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process											
<input 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:																
Texas Instruments is pleased to announce the qualification of an additional bump and assembly (PTI) for the devices listed below. There is no construction differences in devices built between the two sites.																
Reason for Change:																
Continuity of Supply																
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):																
None																
Anticipated impact on Material Declaration																
<input checked="" type="checkbox"/>	No Impact to the Material Declaration	<input 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 TI ECO website .													
Changes to product identification resulting from this PCN:																
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin (22L)</th> <th>Assembly Country Code (21L)</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>Amkor K4</td> <td>ANA</td> <td>KOR</td> <td>Gwangju</td> </tr> <tr> <td>PTI</td> <td>PT2</td> <td>TWN</td> <td>HSINCHU CITY</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (21L)	Assembly City	Amkor K4	ANA	KOR	Gwangju	PTI	PT2	TWN	HSINCHU CITY
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (21L)	Assembly City													
Amkor K4	ANA	KOR	Gwangju													
PTI	PT2	TWN	HSINCHU CITY													
Sample product shipping label (not actual product label)																



MADE IN: Malaysia
ZDC: 2Q:

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

OPT:
ITEM:

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

Topside Device marking (if included):

Assembly site code for ANA= 9

Assembly site code for PTI = C

Product Affected

DAC37J82IAAV	DAC37J84IAAVR	DAC38J84IAAV	DAC39J82IAAVR
DAC37J82IAAVR	DAC38J82IAAV	DAC38J84IAAVR	DAC39J84IAAV
DAC37J84IAAV	DAC38J82IAAVR	DAC39J82IAAV	DAC39J84IAAVR



TI Information
Selective Disclosure

Qualification Report

DAC38J84IAAVR offload to PTI
Approve Date 10-May-2017

Product Attributes

Attributes	Qual Device: DAC38J84IAAV	QBS Product Reference: DAC38J84	QBS Process Reference: F781709/P	QBS Package Reference: TX5171ZCQ
Assembly Site	PTI	AMKOR	TIPI	PTI
Package Family	FCBGA	FCBGA	FCBGA	nFBGA
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC F12	TSMC	TSMC 12	DFAB
Wafer Process	1018C014.P	1018C014.P	1018C014.P8	LBCSOI

- QBS: Qual By Similarity
- Qual Device DAC38J84IAAV 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: DAC38J84IAAV	QBS Product Reference: DAC38J84	QBS Process Reference: F781709/P	QBS Package Reference: TX5171ZCQ
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	-	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	9/1845/0	-	-
FLAM	Flammability (IEC 695-2-2)	--	3/15/0	3/15/0	-	3/15/0
FLAM	Flammability (UL 94V-0)	--	3/15/0	3/15/0	-	3/15/0
FLAM	Flammability (UL-1694)	--	3/15/0	3/15/0	-	3/15/0
HAST	Biased HAST, 110C/85%RH	264 Hours	3/234/0	-	-	3/231/0
HBM	ESD - HBM	2000 V	-	3/9/0	-	-
CDM	ESD - CDM	1000 V	2/6/0	3/9/0	-	1/3/0
HTOL	Life Test, 125C	168 Hours	-	-	2/128/0	3/231/0
HTOL	Life Test, 125C	1000 Hours	-	3/231/0	-	3/114/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	3/231/0	-	3/231/0
LU	Latch-up	(per JESD78)	3/18/0	3/18/0	1/6/0	-
TC	Temperature Cycle, -40/125C	1000 Cycles	-	3/231/0	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	-	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	3/231/0	-	-
UHAST	Unbiased HAST, 110C/85%RH	264 Hours	3/231/0	3/231/0	-	3/230/0

- 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 -85C/150C/600 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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com