

PCN Number:	20170417001		PCN Date:	Apr 18, 2017	
Title:	Qualification of AIZU as an additional Wafer Fab Site option for select devices in HPA07 Technology				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	Jul 18, 2017	Estimated Sample Availability:	Date provided at sample request.		
Change Type:					
<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:

Texas Instruments is pleased to announce the qualification of its AIZU fabrication facility as an additional Wafer Fab source for the selected devices listed in "Product Affected" section.

Current Sites			Additional Sites		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
DP1DM5	HPA07	200mm	AIZU	HPA07	200mm

Qual details are provided in the Qual Data Section.

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 (20L)	Chip Site Country Code (21L)	Chip Site City
DP1DM5	DM5	USA	Dallas

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
AIZU	CU2	JPN	Aizuwakamatsu-shi

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: (Y) 0033317
(20L) CS0: SHE (21L) CCO: USA
(22L) AS0: MLA (23L) ACO: MYS

Product Affected Group:

DAC5578SPW	DAC6578SPW	DAC7578SPW	DAC7678SPW
DAC5578SPWR	DAC6578SPWR	DAC7578SPWR	DAC7678SPWR
DAC5578SRGER	DAC6578SRGER	DAC7578SRGER	DAC7678SRGER
DAC5578SRGET	DAC6578SRGET	DAC7578SRGET	DAC7678SRGET

Qualification Report

HPA07 Offload DM5 to Aizu: DAC7678SPW

Approval date: 4/12/2017

Product Attributes

Attributes	Qual Device: DAC7678SPW	QBS Product Reference: DAC7678SPW	QBS Process Reference: OPA2333AIDGK	QBS Process Reference: TMP431ADGK	QBS Package Reference: SN200708045DAR	QBS Package Reference: TPS54900PW
Assembly Site	TAI (TITL)	TAI (TITL)	ASESH	HNT	TAI (TITL)	TAI (TITL)
Package Family	TSSOP	TSSOP	VSSOP	VSSOP	TSSOP	TSSOP
Wafer Fab Supplier	AIZU	DMOS5	AIZU	AIZU	DMOS5	DFAB
Wafer Fab Process	50HPA07	50HPA07	50HPA07	50HPA07	LBC5	LBC4

- QBS: Qual By Similarity

- Qual Device DAC7678SPW 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: DAC7678SPW	QBS Product Reference: DAC7678SPW	QBS Process Reference: OPA2333AIDGK	QBS Process Reference: TMP431ADGK	QBS Package Reference: SN200708045DAR	QBS Package Reference: TPS54900PW
HTOL	Life Test, 150C	300 Hours	-	-	1/77/0	2/154/0	-	-
AC	Autoclave 121C	96 Hours	-	-	-	-	3/231/0	3/231/0
CDM	ESD - CDM	+/- 500 V	1/3/0	1/3/0	1/3/0	1/3/0	-	-
HBM	ESD HBM	+/- 1000V	1/3/0	1/3/0	1/3/0	1/3/0	-	-
LU	Latch-up	(per JEDEC78)	1/6/0	1/6/0	1/6/0	1/6/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	1/Pass	-	1/Pass	2/Pass	-	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	-	1/77/0	2/154/0	-	-
HAST	Biased HAST 130C/85%RH	96 Hours	-	-	1/77/0	2/154/0	-	3/120/0
HTSL	High-Temp Storage, 170C	420 Hours	-	-	-	-	-	3/231/0
TC	Temperature Cycle -65/150C	500 Cycles	-	-	1/77/0	2/154/0	3/231/0	3/231/0
MQ	Manufacturability (Wafer Fab)	(per mfg. Site specification)	1/Pass	2/Pass	1/Pass	2/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 JEDEC47: -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

AIZU 50HPA07 Phase 3 Qualification

Approve Date 18-Dec-2011

Product Attributes

Attributes	Qual Device: ADS1230IPW	Qual Device: ADS8505IBDW	Qual Device: DAC8820ICDB
Assembly Site	TAI	TAI	CARSEM
Package Family	TSSOP	SOIC	SSOP
Wafer Fab Supplier	AIZU	AIZU	AIZU
Wafer Fab Process	50HPA07	50HPA07	50HPA07

- QBS: Qual By Similarity
- Qual Device DAC8820ICDB is qualified at LEVEL2-260C
- Qual Device ADS1230IPW is qualified at LEVEL2-260C
- Qual Device ADS8505IBDW 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: ADS1230IPW	Qual Device: ADS8505IBDW	Qual Device: DAC8820ICDB
CDM	ESD - CDM	1000 V	1/3/0	-	1/3/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
HBM	ESD - HBM	2500 V	1/3/0	-	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	-	1/77/0
HTOL	Life Test, 150C	300 Hours	-	1/77/0	-
LU	Latch-up	(per JEESD78)	1/6/0	1/6/0	1/6/0
TC	Temperature Cycle-65/150C	500 Cycles	-	1/77/0	1/77/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	1/77/0	-

- 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 JEESD47: -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

AIZU Phase 2 of 50HPA07 Wafer Fab Qualification Approved 12/31/2011

Product Attributes

Attributes	Qual Device: BUF12840AIRGE	Qual Device: INA210AIDCK	Qual Device: INA219AIDCN	Qual Device: OPA2376AIDGK
Assembly Site	CLARK	HNT	NS2	HANA THAILAND
Package Family	VQFN	SOT / COL	SOT23	-
Wafer Fab Supplier	AIZU	AIZU	AIZU	AIZU
Wafer Fab Process	50HPA07	50HPA07	50HPA07	50HPA07

- QBS: Qual By Similarity
- Qual Device BUF12840AIRGE is qualified at LEVEL3-260C
- Qual Device INA210AIDCK is qualified at LEVEL2-260C
- Qual Device INA219AIDCN is qualified at LEVEL2-260C
- Qual Device OPA2376AIDGK 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: BUF12840AIRGE	Qual Device: INA210AIDCK	Qual Device: INA219AIDCN	Qual Device: OPA2376AIDGK
HAST	Biased HAST, 130C/85%RH	96 Hours	-	1/77/0	1/77/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	1/77/0	1/77/0	1/77/0	-
TC	Temperature Cycle -65/150C	500 Cycles	1/77/0	1/77/0	1/77/0	-
HTSL	High Temp Storage Bake, 170C	420 Hours	1/77/0	1/77/0	1/77/0	-
HTOL	Life Test, 150C	300 Hours	1/77/0	1/77/0	1/77/0	-
HBM	ESD - HBM	1000 V	1/3/0	1/3/0	1/3/0	-
CDM	ESD - CDM	500 V	1/3/0	1/3/0	1/3/0	-
LU	Latch-up	Per JESD78	1/6/0	1/6/0	1/6/0	-
ED	Electrical Characterization	Per Datasheet Parameters	1/Pass	1/Pass	1/Pass	1/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

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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