PCN Number:	20141216000			**PCN Date:**	12/17/2014
Title:	INA333 / TAS5733 / F6779A Die Revision Change				
Customer Contact:	PCN Manager	**Phone:**	+1(214)480-6037	**Dept:**	Quality Services
Proposed 1st Ship Date:	3/17/2015	**Estimated Sample Availability:**			Date provided at sample request.

Change Type:					
☐	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☒	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

This notification is to inform of a design change to select devices. The design changes do not affect the device's guaranteed datasheet specifications or electrical performance. Affected devices are listed in "Product Affected" section. Design changes as follows:

Group 1 Devices: INA333 Die Rev Change (Rev E to Rev F)

Description of Change	Benefit of Change
Metal change on the existing design in order to correct noise issues at different temperatures and supply voltages.	Continuous Improvement

Group 2 Devices: TAS5733 Die Rev Change (Rev B to Rev C)

Description of Change	Benefit of Change
Power die conversion on the TAS5733PHP devices to improve yield and product performance.	Continuous Improvement

Group 3 Devices: F6779A DMA9 Die Rev Change (Rev B to Rev C)

Description of Change	Benefit of Change
Bug fix for DMA9.	Enabling customer business

Reason for Change:

Improved product performance

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

None

Changes to product identification resulting from this PCN:

Sample product shipping label (not actual product label)

Group 1 Devices – Die Rev Marking:

Current	New
Die Rev [2P]	**Die Rev [2P]**
E	**F**

Group 2 Devices – Die Rev Marking:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**C**

Group 3 Devices – Die Rev Marking:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**C**

Product Affected Group 1: INA333 Die Rev Change (Rev E to Rev F)

INA333AIDGKR	INA333AIDGKT	INA333AIDRGR	INA333AIDRGT
INA333AIDGKRG4	INA333AIDGKTG4		

Product Affected Group 2: TAS5733 Die Rev Change (Rev B to Rev C)

TAS5733PHP	TAS5733PHPR

Product Affected Group 3: F6779A DMA9 Die Rev Change (Rev B to Rev C)

MSP430F67451AIPEU	MSP430F6748AIPZ	MSP430F6767AIPEU	MSP430F67761AIPZ
MSP430F67451AIPEUR	MSP430F6748AIPZR	MSP430F6767AIPEUR	MSP430F67761AIPZR
MSP430F67451AIPZ	MSP430F67491AIPEU	MSP430F6767AIPZ	MSP430F6776AIPEU
MSP430F67451AIPZR	MSP430F67491AIPEUR	MSP430F6767AIPZR	MSP430F6776AIPEUR
MSP430F6745AIPEU	MSP430F67491AIPZ	MSP430F67681AIPEU	MSP430F6776AIPZ
MSP430F6745AIPEUR	MSP430F67491AIPZR	MSP430F67681AIPEUR	MSP430F6776AIPZR
MSP430F6745AIPZ	MSP430F6749AIPEU	MSP430F67681AIPZ	MSP430F67771AIPEU
MSP430F6745AIPZR	MSP430F6749AIPEUR	MSP430F67681AIPZR	MSP430F67771AIPEUR
MSP430F67461AIPEU	MSP430F6749AIPZ	MSP430F6768AIPEU	MSP430F67771AIPZ
MSP430F67461AIPEUR	MSP430F6749AIPZR	MSP430F6768AIPEUR	MSP430F67771AIPZR
MSP430F67461AIPZ	MSP430F67651AIPEU	MSP430F6768AIPZ	MSP430F6777AIPEU
MSP430F67461AIPZR	MSP430F67651AIPEUR	MSP430F6768AIPZR	MSP430F6777AIPEUR
MSP430F6746AIPEU	MSP430F67651AIPZ	MSP430F67691AIPEU	MSP430F6777AIPZ
MSP430F6746AIPEUR	MSP430F67651AIPZR	MSP430F67691AIPEUR	MSP430F6777AIPZR
MSP430F6746AIPZ	MSP430F6765AIPEU	MSP430F67691AIPZ	MSP430F67781AIPEU
MSP430F6746AIPZR	MSP430F6765AIPEUR	MSP430F67691AIPZR	MSP430F67781AIPEUR
MSP430F67471AIPEU	MSP430F6765AIPZ	MSP430F6769AIPEU	MSP430F67781AIPZ
MSP430F67471AIPEUR	MSP430F6765AIPZR	MSP430F6769AIPEUR	MSP430F67781AIPZR
MSP430F67471AIPZ	MSP430F67661AIPEU	MSP430F6769AIPZ	MSP430F6778AIPEU
MSP430F67471AIPZR	MSP430F67661AIPEUR	MSP430F6769AIPZR	MSP430F6778AIPEUR
MSP430F6747AIPEU	MSP430F67661AIPZ	MSP430F67751AIPEU	MSP430F6778AIPZ
MSP430F6747AIPEUR	MSP430F67661AIPZR	MSP430F67751AIPEUR	MSP430F6778AIPZR
MSP430F6747AIPZ	MSP430F6766AIPEU	MSP430F67751AIPZ	MSP430F67791AIPEU
MSP430F6747AIPZR	MSP430F6766AIPEUR	MSP430F67751AIPZR	MSP430F67791AIPEUR
MSP430F67481AIPEU	MSP430F6766AIPZ	MSP430F6775AIPEU	MSP430F67791AIPZ
MSP430F67481AIPEUR	MSP430F6766AIPZR	MSP430F6775AIPEUR	MSP430F67791AIPZR
MSP430F67481AIPZ	MSP430F67671AIPEU	MSP430F6775AIPZ	MSP430F6779AIPEU
MSP430F67481AIPZR	MSP430F67671AIPEUR	MSP430F6775AIPZR	MSP430F6779AIPEUR
MSP430F6748AIPEU	MSP430F67671AIPZ	MSP430F67761AIPEU	MSP430F6779AIPZ
MSP430F6748AIPEUR	MSP430F67671AIPZR	MSP430F67761AIPEUR	MSP430F6779AIPZR

Group 1: Qualification Report

INA333 Rev F Die
Approved 10/30/2014

Product Attributes

Attributes	Qual Device: INA333AIDRGR	QBS Product: INA333AIDRG	QBS Process: OPA300AID	QBS Package: BQ24703RHD	QBS Package: BUF07704AIPWP	QBS Package: SN75DP139RGZ	QBS Package: TPA5050RSA	QBS Package: TPS51427ARHB	QBS Package: TPS51620RHAR
Assembly Site	MLA	MLA	CRS	MLA	MLA	MLA	MLA	MLA	MLA
Package Family	WSON	WSON	SOIC	VQFN	HTSSOP	VQFN	VQFN	VQFN	VQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Site	DMOS5	DMOS5	DMOS5	DFAB	DMOS5	FFAB	DMOS5	MIHO8	DFAB
Wafer Fab Process	50HPA07	50HPA07	50HPA07	LBC4X	50HPA07X3	BICOM3XL	1833C05X4	LBC7	LBC4X

- QBS: Qual By Similarity
- Qual Device INA333AIDRGR is qualified at LEVEL2-260CG
- Device VSP6825AZRCR contains multiple dies.

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

Type	Test Name / Condition	Duration	Qual Device: INA333AIDRGR	QBS Product: INA333AIDRG	QBS Process: OPA300AID	QBS Package: BQ24703RHD	QBS Package: BUF07704AIPWP	QBS Package: SN75DP139RGZ	QBS Package: TPA5050RSA	QBS Package: TPS51427ARHB	QBS Package: TPS51620RHAR
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	-	-	-	-	-	-
AC	Autoclave 121C	96 Hours	-	1/77/0	3/231/0	1/77/0	3/231/0	1/77/0	3/230/0	3/231/0	3/231/0
TC	**T/C -65C/150C	-65C/+150C (1000 Cyc)	-		-	-	-	-	-	-	-
TC	Temperature Cycle -65/150C	500 Cycles	-	1/77/0	3/231/0	1/77/0	3/231/0	1/77/0	2/154/0 -	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	3/135/0	-	-	-	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	1/77/0	3/231/0	1/77/0	3/231/0	3/231/0	3/230/0
TS	Thermal Shock - 65/150C	500 Cycles	-	-	-	1/76/0	3/231/0	1/77/0	3/231/0	3/231/0	-
HTOL	Life Test, 150C	300 Hours	-	-	4/464/0	-	-	-	-	-	-
HBM	ESD HBM	4000 V	-	1/3/0	1/3/0	-	-	-	-	-	-
CDM	ESD - CDM	1000 V	-	1/3/0	1/3/0	-	-	-	-	-	-
LU	Latch-up	(per JESD78)	-	1/6/0	1/12/0	-	-	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	2/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

Group 2: Qualification Report

TAS5733PHP Power Die Conversion
Approved 11/17/2014

Product Attributes

Attributes	Qual Device: TAS5733PHP	QBS Product: TAS5733PHP _DIEREV	QBS Product: TAS5733PHP.
Assembly Site	TAI	TITL	TITL
Package Family	HTQFP	HTQFP	HTQFP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Site	DONGBU RFAB	DONGBU RFAB	DONGBU RFAB
Wafer Fab Process	1833C05 LBC7	1833C05 LBC7	1833C05 LBC7

- QBS: Qual By Similarity
- Qual Device TAS5733PHP is qualified at LEVEL3-260C
- Device TAS5733PHP contains multiple dies.

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

Type	Test Name / Condition	Duration	Qual Device: TAS5733PHP	QBS Product: TAS5733PHP (A1)	QBS Product: TAS5733PHP (A0)
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	1/77/0
WBS	Ball Bond Shear	Wires	-	1/76/0	-
WBP	Bond Pull	Wires	-	1/76/0	-
HBM	ESD - HBM	3000 V	1/12/0	-	-
CDM	ESD - CDM	1500 V	1/3/0	-	1/3/0
LU	Latch-up	(per JESD78)	1/6/0	-	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	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

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	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com