PCN Number:		2	20161102000A PCN Date: Jan 16, 2017						Jan 16, 2017			
Title: Qualification of H Package Devices			HANA Th s	ailar	nd as .	Additional	Assembly	and	T t	est Site for	Select SSOP	
Cust	omer	Contact:	<u>P(</u>	CN Manage	e <u>r</u>	Dept	t:	Quality S	Serv	vices		
Prop	osed	1 st Ship Da	te:	Apr 16,	, 201	.7	stimated vailabilit	Sample y:	Da rea	Date Provided at Sample request		
Char	nge T	уре:										
\square	Asser	mbly Site				Desi	gn				Wafer Bum	p Site
	Asser	mbly Process			Data Sheet		4	Wafer Bump Material				
	Asser	mbly Materia	ls .		Part number change		4	Wafer Bump Process				
	Mech	anical Specif	icat	ION		Test	Site		┼┝	╡┼	Wafer Fab Site	
\square	PACKI	ng/snipping/	LdU	ling		Test	Process		┤┝	╡┼	Wafer Fab Materials	
						РС	N Detai	ls				FIOCESS
Desc	criptio	on of Chang	e:									
Revision A is to announce the <u>addition</u> of new devices that were not included on the original PCN notification. These new devices are highlighted and bolded in the device list below. The expected first shipment date for these new devices will be 90 days from this notice for these newly added devices only. Texas Instruments Incorporated is announcing the qualification of HANA Thailand as Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.												
	Assen	nbly Site	As	sembly Si	ite O	rigin	Assembly	/ Country (Code	•	Assembly	Site City
	Assen Hi	n bly Site tachi	As	sembly Si HTC	ite Oı	rigin	Assembly	/ Country (JPN	Code)	Assembly Kitatsugaru	Site City ı, Aomori
	Assen Hi HANA	nbly Site tachi Thailand	As	sembly Si HT(HN)	ite Oı C	rigin	Assembly	/ Country (JPN THA	Code	•	Assembly Kitatsugaru Ayutth	Site City ı, Aomori naya
Mate	Assen Hi HANA erial I	nbly Site tachi Thailand Differences:	As	sembly Si HTC HNT	ite Oi C	rigin	Assembly	/ Country (JPN THA	Code	;	Assembly Kitatsugaru Ayutth	Site City I, Aomori naya
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Mate	Assen Hi HANA erial I	nbly Site tachi Thailand Differences: Compound	As	sembly Si HTC HN1 HN1 Hita RZ2	ite Or C Inchi 41C	rigin	Assembly HAN	/ Country (JPN THA IA Thailand	2 D	,	Assembly Kitatsugaru Ayutth	Site City ı, Aomori naya
Mate	Assen Hi HANA erial I Mount (Mold c	nbly Site tachi Thailand Differences: Compound compound	As	sembly Si HTC HNT HIta RZ2 G60	ite Oi C I I I Chi 41C 00K	rigin	Assembly HAN	/ Country (JPN THA IA Thailand 400728 450524	Code		Assembly Kitatsugaru Ayutth	Site City ı, Aomori naya
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Sample product shipping label (not actual product label)					
TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: MSL 2 /260C/1 YEAR SEA MSL 1 /235C/UNLIM 03. OPT: ITEM: 39 LBL: 5A (L)TO:1	G4 AL DT (29/04 750	(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CS0: SHE (21L) CC0:USA (22L) AS0: MLA (23L) AC0: MYS			
ASSEMBLY SITE CODES: Product Affected:	HIT = T, HNT = H				
74AVCH2T45DCTRE4	SN74AUC2G240DCTR	SN74LVC2G02DCTRE4	SN74LVC3G04DCTRG4		
74AVCH2T45DCTTE4	SN74AUC2G241DCTR	SN74LVC2G02DCTRG4	SN74LVC3G06DCTR		
74LVC1G123DCTRE4	SN74AUC2G32DCTR	SN74LVC2G08DCTR	SN74LVC3G06DCTRE4		
74LVC1G123DCTRG4	SN74AUC2G66DCTR	SN74LVC2G08DCTRE4	SN74LVC3G07DCTR		
74LVC1G123DCTTE4	SN74AUC2G79DCTR	SN74LVC2G08DCTRG4	SN74LVC3G07DCTRG4		
74LVC1G123DCTTG4	SN74AUC2G80DCTR	SN74LVC2G125DCTR	SN74LVC3G14DCTR		
74LVC1G139DCTRE4	SN74AUC2G80DCTRG4	SN74LVC2G132DCTR	SN74LVC3G14DCTR-P		
74LVC1G139DCTTE4	SN74AUC2G86DCTR	SN74LVC2G157DCTR	SN74LVC3G14DCTRE4		
74LVC2G125DCTR-P2	SN74AUP1G99DCTR	SN74LVC2G157DCTR-P	SN74LVC3G14DCTRG4		
74LVC2G125DCTRE4	SN74AUP1G99DCTT	SN74LVC2G157DCTRG4	SN74LVC3G17DCTR		
74LVC2G125DCTRG4	SN74AVC2T45DCTR	SN74LVC2G240DCTR	SN74LVC3G17DCTRE4		
74LVC2G132DCTRG4	SN74AVC2T45DCTRE4	SN74LVC2G32DCTR	SN74LVC3G17DCTRG4		
74LVC2G157DCTRE4	SN74AVC2145DCTT	SN74LVC2G32DCTRE4	SN74LVC3G34DCTR		
74LVC2G240DCTRE4	SN74AVC2T45DCTTG4	SN74LVC2G32DCTRG4	SN74LVC3G34DCTR-P		
LSF0102DCTR	SN74AVCH2T45DCTR	SN74LVC2G38DCTR	SN74LVC3G34DCTRG4		
PCA9306DCTR	SN74AVCH2145DCTT	SN74LVC2G66DCTR	SN74LVC3GU04DCTR		
PCA9306DCTRE4	SN74LVC1404DCTR	SN74LVC2G66DCTRE4	SN74TVC3306DCTR		
PCA9306DCTRG4	SN74LVC1G123DCTR	SN74LVC2G66DCTRG4	SN74TVC3306DCTRE4		
PCA9306DCTT	SN74LVC1G123DCTT	SN74LVC2G79DCTR	TCA9406DCTR		
PCA9306DCTTE4	SN74LVC1G139DCTR	SN74LVC2G80DCTR	TS5A2053DCTR		
PCA9306DCTTG4	SN74LVC1G139DCTT	SN74LVC2G80DCTRG4	TS5A2053DCTRE4		
SN74AUC2G00DCTR	SN74LVC1G29DCTR	SN74LVC2G86DCTR	TXS0102DCTR		
SN74AUC2G00DCTRE4	SN74LVC1G99DCTR	SN74LVC2G86DCTRG4	TXS0102DCTRE4		
SN74AUC2G02DCTR	SN74LVC1G99DCTRG4	SN74LVC2T45DCTR	TXS0102DCTT		
SN74AUC2G08DCTR SN74AUC2G08DCTRE4 SN74AUC2G08DCTRG4	SN74LVC1G99DCTT SN74LVC2G00DCTR SN74LVC2G00DCTRE4	SN74LVC2T45DCTRE4 SN74LVC2T45DCTT SN74LVC2T45DCTTG4	TXS0102DCTTE4 TXS0102DCTTG4		
SN74AUC2G125DCTR	SN74LVC2G00DCTRG4	SN74LVC3G04DCTR			
SN74AUC2G126DCTR	SN74LVC2G02DCTR	SN74LVC3G04DCTRE4			

Qualification Report

New Package: DCT package qual at HNT

Approve Date 18-Oct-2016

Product Attributes

Attributes	Qual Device: PCA9306DCTR	Qual Device: TXS0102DCTR
Assembly Site	HNT	HNT
Package Family	SSOP	SSOP
Flammability Rating	UL 94 V-0	UL 94 V 0
Wafer Fab Supplier	SFAB	FFAB
Wafer Process	EPIC1ZS	A3C10TPI /P9785

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C:PCA9306DCTR, TXS0102DCTR

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: PCA9306DCTR	Qual Device: TXS0102DCTR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
FLAM	Flammability (IEC 695-2-2)		-	3/15/0
FLAM	Flammability (UL 94V-0)		-	3/15/0
FLAM	Flammability (UL-1694)		-	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0
LI	Lead Fatigue	Leads	-	3/66/0
LI	Lead Pull to Destruction	Leads	-	3/66/0
PD	Physical Dimensions		-	3/15/0
SD	Surface Mount Solderability	Pb Free	-	3/66/0
SD	Surface Mount Solderability	Pb	-	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0

- 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 -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

A-T / Device Offload into HNT DCT package

Approve Date 19-Oct-2016

Product Attributes

Attributes	Qual Device: SN74LVC2G66DCTR	QBS Package Reference: TXS0102DCTR
Assembly Site	HNT	HNT
Package Family	SSOP	SSOP
Flammability Rating	UL 94 V-0	UL 94 V 0
Wafer Fab Supplier	FFAB	FFAB
Wafer Process	A3CTPI-8	A3C10TPI

- QBS: Qual By Similarity

- Qual Device SN74LVC2G66DCTR is qualified at LEVEL1-260C

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: SN74LVC2G66DCTR	QBS Package Reference: TXS0102DCTR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
FLAM	Flammability (IEC 695-2-2)		-	3/15/0
FLAM	Flammability (UL 94V-0)		-	3/15/0
FLAM	Flammability (UL-1694)		-	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0
LI	Lead Fatigue	Leads	-	3/66/0
LI	Lead Pull to Destruction	Leads	-	3/66/0
PD	Physical Dimensions		-	3/15/0
SD	Surface Mount Solderability	Pb Free	-	3/66/0
SD	Surface Mount Solderability	Pb	-	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0

- 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 -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 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