

PCN Number:	20150123003		PCN Date:	1/26/2015													
Title:	Qualification of HIT as Additional Assembly/Test location for Select Devices in the DCU package																
Customer Contact:	PCN Manager		Dept:	Quality Services													
Proposed 1st Ship Date:	04/26/2015		Estimated Sample Availability:	Date provided upon request													
Change Type:																	
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials												
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification												
<input checked="" 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 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:																	
<p>Texas Instruments is pleased to announce the qualification of Hitachi as an alternate Assembly and Test site for the devices listed below. Device construction differences are noted as follows:</p>																	
<table border="1"> <thead> <tr> <th>What</th> <th>Hana Thailand</th> <th>Hitachi</th> </tr> </thead> <tbody> <tr> <td>Mount Compound</td> <td>SID#400154</td> <td>SID#RZ241C</td> </tr> <tr> <td>Mold Compound</td> <td>SID#450207</td> <td>SID#RM500F</td> </tr> <tr> <td>Lead Finish</td> <td>NiPdAu</td> <td>Matte Sn</td> </tr> </tbody> </table>						What	Hana Thailand	Hitachi	Mount Compound	SID#400154	SID#RZ241C	Mold Compound	SID#450207	SID#RM500F	Lead Finish	NiPdAu	Matte Sn
What	Hana Thailand	Hitachi															
Mount Compound	SID#400154	SID#RZ241C															
Mold Compound	SID#450207	SID#RM500F															
Lead Finish	NiPdAu	Matte Sn															
<p>Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.</p>																	
<p>Upon expiry of this PCN TI will combine lead free solutions in a single standard part number, for example; SN74AVCH2T45DCUR – can ship with both Matte Sn and NiPdAu/Ag.</p>																	
<p>Example:</p> <ul style="list-style-type: none"> – Customer order for 7500units of SN74AVCH2T45DCUR with 2500 units SPQ (Standard Pack Quantity per Reel). – TI can satisfy the above order in one of the following ways. <ul style="list-style-type: none"> I. 3 Reels of NiPdAu finish. II. 3 Reels of Matte Sn finish III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish. IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish. 																	
Reason for Change:																	
Continuity of Supply																	
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):																	
None																	

Changes to product identification resulting from this PCN:

Assembly Site		
Hana Thailand	Assembly Site Origin (22L)	ASO: HNT
Hitachi	Assembly Site Origin (22L)	ASO: HTC

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:
 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) 7523483SI2
 (P)
 (2P) REV: (V) 0033317
 (20L) CSO: SHE (21L) CCO:USA
 (22L) ASO: MLA (23L) ACO: MYS

Topside Device marking:
 Assembly site code for HNT=H
Assembly site code for HTC=T

G4 = NiPdAu
G3= MATTE Sn

Product Affected

SN74AVCH2T45DCUR	TCA9406DCUR	TS5A3359DCUT	TXB0102DCUR
SN74AVCH2T45DCUT	TS5A3359DCUR	TXB0102DCUR	

Qualification Report

A-T site Transfer: TXB0102DCUR, TCA9406DCUR, SN74AVCH2T45DCUR, and TS5A3359DCUR (HNT to HIT)
 Approved 01/13/2015

Product Attributes

Attributes	Qual Device: SN74AVCH2T45DCUR	Qual Device: TCA9406DCUR	Qual Device: TS5A3359DCUR	Qual Device: TXB0102DCUR	QBS Package: SN74LVC2G125DCUR	QBS Package: SN74LVC2G74DCUR	QBS Package: SN74CB3Q3306ADCUR
Assembly Site	HIT	HIT	HIT	HIT	HITACHI-RENESAS	HITACHI-RENESAS	HITACHI-RENESAS
Package Family	-	-	-	-	-	-	-
Flammability Rating	-	-	-	-	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Site	FFAB	FFAB	FFAB	FFAB	FFAB	FFAB	FFAB
Wafer Fab Process	ASLC10/P9705	ASLC10/P9785	ASLC10/P9785	ASLC10/P9785	ASL3C	ASL3C	ACTPI

- QBS: Qual By Similarity
 - Qual: Devices qualified at LEVEL1-260C: SN74AVCH2T45DCUR, TCA9406DCUR, TS5A3359DCUR, TXB0102DCUR

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: SN74AVCH2T45DCUR	Qual Device: TCA9406DCUR	Qual Device: TS5A3359DCUR	Qual Device: TXB0102DCUR	QBS Package: SN74LVC2G125DCUR	QBS Package: SN74LVC2G74DCUR	QBS Package: SN74CB3Q3306ADCUR
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	3/231/0	-
AC	Autoclave 121C	96 Hours	-	-	-	-	-	-	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	-	-	-	-	3/231/0	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	-	-	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-	-	3/231/0	-
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	-	-	-	-	-	-
TS	Thermal Shock -65/150C	500 Cycles	-	-	-	-	-	3/231/0	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-	-	3/231/0	-
WBS	Bond Shear	Wires	-	-	-	-	-	-	-
WBP	Bond Pull	Wires	-	-	-	-	-	-	-
SD	Solderability	Post 8 Hours Steam Age	-	-	-	-	-	3/66/0	-
PD	Physical Dimensions	-	-	-	-	-	-	3/15/0	-
LI	Lead Fatigue	Leads	-	-	-	-	-	3/66/0	-
LI	Lead Pull	Leads	-	-	-	-	-	3/66/0	-
HBM	ESD - HBM	2000 V	-	-	-	-	-	-	-
HBM	ESD - HBM	2500 V	-	-	-	-	-	-	-
CDM	ESD - CDM	750 V	-	-	-	-	-	-	-
CDM	ESD - CDM	1000 V	-	-	-	-	-	-	-
CDM	ESD - CDM	1500 V	-	-	-	-	-	-	-
LU	Latch-up (per JESD78)	-	-	-	-	-	-	-	-
ED	Auto Electrical Distributions	Cpk>1.67 Room, hot, and cold test	-	-	-	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	-	-	-
WBS	Bond Strength	Wires	-	-	-	-	-	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	-

- 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

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