PCN Nu	20210222000.1							PCN Date: Fel		Feb 22, 2021		
Title:	Title: Qualification of Carsem Suzhou as an additional Assembly site for Select Devices									Devices		
Custom	er Conta	ct:	PCN A	Nanager	r Dept: Quality Servi			ices	 Ces			
Proposed 1 <sup>st</sup> Ship Date: May			May 2	May 22, 2021 Estimated S			<b>ample</b> Date provided at <b>bility:</b> sample request		•			
Change Type:												
Assembly Site					Design				Wafer Bump Site			
Assembly Process					Data Sheet				Wafer Bump Material			
Assembly Materials					Part number change				Wafer Bump Process			
Mechanical Specification					Test Site				Wafer Fab Site			
□ Packing/Shipping/Labeling					Test Process				Wafer Fab Materials			
☐ Wafer Fab Process							Process					
	PCN Details											

## **Description of Change:**

Texas Instruments is pleased to announce the qualification Carsem Suzhou as an additional assembly site for the list of devices below. Current assembly site and Material differences are as follows:

	CDAT	Carsem
Mount Compound	4207123	444337
Mold Compound	4222198	444567

## **Reason for Change:**

Continuity of Supply

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

None

### **Anticipated impact on Material Declaration**

No Impact to the Material Declaration	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 at the site link below <a href="http://www.ti.com/quality/docs/materialcontentsearch.tsp">http://www.ti.com/quality/docs/materialcontentsearch.tsp</a>

## Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City	
TI Chengdu	CDA	CHN	Chengdu	
Carsem	CSZ	CHN	Jiangsu	

Sample product shipping label (not actual product label)



<b>Product Affected:</b>	
THS6222IRHFR	THS6222IRHFT

# **Qualification Report**

Approve Date 18-Feb-2021

## **Qualification Results**

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

Туре	Test Name / Condition Duration		Qual Device: THS6222IRHFR	QBS Product Reference: THS6222IRHFR	QBS Process Reference: OPA2810IDGK	QBS Process Reference: THS3491IDDA	QBS Package Reference: TPS53688RSB B0
HTOL	High Temperature Operating Life Test, 70C <sup>A</sup>	300 Hours	-	-	-	3/231/0	-
HTOL	High Temperature Operating Life Test, 78C <sup>A</sup>	300 Hours	-	1/77/0	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	3/231/0	-	1/77/0
EFR	Early Life Failure Rate, 70C <sup>A</sup>	24 Hours	-	-	-	3/3000/0	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	3/3000/0	-	-
HBM	ESD - HBM	2500 V	-	-	3/9/0	3/9/0	1/3/0
HBM	ESD - HBM	3000 V	-	-	-	-	-
HBM	ESD - HBM	3500 V	-	1/3/0	-	-	-
CDM	ESD - CDM	1000 V	-	-	-	3/9/0	1/3/0
CDM	ESD - CDM	1250 V	-	1/3/0	-	-	-
CDM	ESD - CDM	1500 V	-	-	3/9/0	-	-
LU	Latch-up	Per JESD78	-	1/6/0	3/18/0	3/30/0	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0	3/90/0	3/90/0	-
AC	Autoclave 121C	96 Hours	-	-	-	-	1/77/0
HAST	Biased HAST, 130C/85%RH	96 Hours	2/154/0	3/231/0	3/231/0	3/231/0	1/77/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	1/77/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	3/231/0	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0	1/77/0
UHAS T	Unbiased HAST 130C/85%RH	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0	-

<sup>-</sup> Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

<sup>-</sup> 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 Tl's external Web site: http://www.ti.com/

### Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

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<sup>&</sup>lt;sup>A</sup> Self heating of die brings Tj up to 150C