

PCN Number:	20160603000		PCN Date:	06/07/2016												
Title:	Qualification of Carsem Suzhou (CARZ) as Additional Assembly and Test Site for Select Package Devices															
Customer Contact:	PCN Manager	Dept:	Quality Services													
Proposed 1st Ship Date:	09/07/2016	Estimated Sample Availability:	Date Provided at Sample request													
Change Type:																
<input checked="" 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 checked="" type="checkbox"/>	Test Site	<input checked="" 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:																
Texas Instruments Incorporated is announcing the qualification of Carsem Suzhou (CARZ) as Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Assembly Site</th> <th style="width: 20%;">Assembly Site Origin</th> <th style="width: 20%;">Assembly Country Code</th> <th style="width: 30%;">Assembly Site City</th> </tr> </thead> <tbody> <tr> <td>TI Chengdu (CDAT)</td> <td>CDA</td> <td>CN</td> <td>Chengdu</td> </tr> <tr> <td>Carsem Suzhou (CARZ)</td> <td>CSZ</td> <td>CN</td> <td>Jiangsu</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	TI Chengdu (CDAT)	CDA	CN	Chengdu	Carsem Suzhou (CARZ)	CSZ	CN	Jiangsu
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City													
TI Chengdu (CDAT)	CDA	CN	Chengdu													
Carsem Suzhou (CARZ)	CSZ	CN	Jiangsu													
Material Differences:																
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	TI Chengdu (CDAT)	Carsem Suzhou (CARZ)														
Mount Compound	4207123	435143														
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.																
Reason for Change:																
Continuity of supply.																
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																
None																
Anticipated impact on Material Declaration																
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	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 from the TI ECO website .													
Changes to product identification resulting from this PCN:																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Assembly Site</th> <th style="width: 30%;">Assembly Site Origin (22L)</th> <th style="width: 40%;">ASO:</th> </tr> </thead> <tbody> <tr> <td>TI Chengdu</td> <td>Assembly Site Origin (22L)</td> <td>ASO: CDA</td> </tr> <tr> <td>Carsem Suzhou</td> <td>Assembly Site Origin (22L)</td> <td>ASO: CSZ</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin (22L)	ASO:	TI Chengdu	Assembly Site Origin (22L)	ASO: CDA	Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ			
Assembly Site	Assembly Site Origin (22L)	ASO:														
TI Chengdu	Assembly Site Origin (22L)	ASO: CDA														
Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ														

Sample product shipping label (not actual product label)



MADE IN: Malaysia
2DC: 20:



(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

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L) TO: 1750

ASSEMBLY SITE CODES: TI-CDAT = 8, CARZ = F

Product Affected:

TPS61021DSGR	TPS61021DSGT
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Qualification Report

TPS61021DSG in CARZ

Approve Date 31-May-2016

Product Attributes

Attributes	Qual Device: TPS61021DSG (CARZ)	QBS Product Reference: TPS61021DSG	QBS Product Reference: TPS61021DSG_A0	QBS Process Reference: TPS51217DSC	QBS Process Reference: TPS65265RHB	QBS Process and Package Reference: TPA3117D2RHBR
Assembly Site	CARSEM SUZHOU (CARZ)	CDAT	CDAT	CLARK-AT	CLARK-AT	CARSEM SUZHOU (CARZ)
Package Family	QFN/ SON	QFN/ SON	QFN/ SON	QFN/ SON	QFN/ SON	QFN/ SON
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
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	RFAB	RFAB
Wafer Process	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7

- QBS: Qual By Similarity

- Qual Device TPS61021DSG (CARZ) 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: TPS61021DSG (CARZ)	QBS Product Reference: TPS61021DSG	QBS Product Reference: TPS61021DSG_A0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	-
HBM	ESD - HBM	4000 V	-	1/3/0	1/3/0
CDM	ESD - CDM	1500 V	-	1/3/0	1/3/0
LU	Latch-up	(per JESD78)	-	1/6/0	1/6/0
HTOL	Life Test, 125C	1000 Hours	-	-	-
HTOL	Life Test, 135C	635 Hours	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	1/77/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-

Type	Test Name / Condition	Duration	Qual Device: TPS61021DSG (CARZ)	QBS Product Reference: TPS61021DSG	QBS Product Reference: TPS61021DSG_A0
UHA	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	-	-
AC	Autoclave 121C	96 Hours	-	-	-
PD	Physical Dimensions	(per mechanical drawing)	3/60/0	-	-
WBP	Bond Pull	Wires	3/228/0	-	1/76/0
WBS	Ball Bond Shear	Wires	3/228/0	-	1/76/0

Type	Test Name / Condition	Duration	QBS Process Reference: TPS51217DSC	QBS Process Reference: TPS65265RHB	QBS Package Reference: TPA3117D2RHBR
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
HBM	ESD - HBM	4000 V	-	1/3/0	-
CDM	ESD - CDM	1500 V	3/9/0	1/3/0	-
LU	Latch-up	(per JESD78)	3/18/0	1/6/0	-
HTOL	Life Test, 125C	1000 Hours	-	3/231/0	-
HTOL	Life Test, 135C	635 Hours	3/231/0	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	2/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	2/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-	2/231/0
UHA	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-
AC	Autoclave 121C	96 Hours	2/231/0	-	2/231/0
PD	Physical Dimensions	(per mechanical drawing)	-	-	-
WBP	Bond Pull	Wires	-	-	-
WBS	Ball Bond Shear	Wires	-	-	-

- 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