

PCN Number:	20171115000	PCN Date:	Nov. 17, 2017																
Title:	Qualification of Carsem Suzhou (CSZ) as additional Assembly Site for Select Devices																		
Customer Contact:	PCN Manager	Dept:	Quality Services																
Proposed 1st Ship Date:	Feb 17, 2018	Estimated Sample Availability:	Date Provided at Sample request																
Change Type:																			
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design																
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet																
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change																
<input type="checkbox"/>	Mechanical Specification	<input 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																
PCN Details																			
Description of Change:																			
Qualification of Carsem Suzhou (CSZ) as additional assembly site for select devices listed in the "Product Affected" Section. Current assembly sites and material differences are as follows.																			
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly Site City</th> </tr> </thead> <tbody> <tr> <td>TI Clark</td> <td>QAB</td> <td>PHL</td> <td>Angeles City, Pampanga</td> </tr> <tr> <td>TI Malaysia</td> <td>MLA</td> <td>MYS</td> <td>Kuala Lumpur</td> </tr> <tr> <td>Carsem Suzhou</td> <td>CSZ</td> <td>CHN</td> <td>Jiangsu</td> </tr> </tbody> </table>				Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	TI Clark	QAB	PHL	Angeles City, Pampanga	TI Malaysia	MLA	MYS	Kuala Lumpur	Carsem Suzhou	CSZ	CHN	Jiangsu
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City																
TI Clark	QAB	PHL	Angeles City, Pampanga																
TI Malaysia	MLA	MYS	Kuala Lumpur																
Carsem Suzhou	CSZ	CHN	Jiangsu																
Material Differences:																			
	TI Clark	TI Malaysia	Carsem Suzhou																
Mount compound	4207123	4205846	443156																
Lead finish	NiPdAu	NiPdAu	NiPdAuAg																
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-Info website . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.																
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																			
None																			
Changes to product identification resulting from this PCN:																			

Assembly Site		
TI Clark Philippines	Assembly Site Origin (22L)	ASO: QAB
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA
Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ

Sample product shipping label (not actual product label)



TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 20:

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

ASSEMBLY SITE CODES: TI-Clark = I, TI-Malaysia = I, Carsem Suzhou = F

Product Affected:

CC1020LRSSR	CC1110F8RHHT	CC1200RHBR	CC2544RHBT
CC1020RSSR	CC1120RHBR	CC1200RHBT	CC430F6125IRGCR
CC1020RSST	CC1120RHBT	CC1201RHBR	CC430F6126IRGCR
CC1020WRSSR	CC1121RHBR	CC1201RHBT	CC430F6126IRGCT
CC1021RSSR	CC1121RHBT	CC1260RGZR	CC430F6127IRGCR
CC1021RSST	CC1125ARHBR	CC1260RGZT	CC430F6127IRGCT
CC1101RGP	CC1125RHBR	CC2500RGP	CC430F6135IRGCR
CC1101RGPR	CC1125RHBT	CC2500RGPR	CC430F6135IRGCT
CC1101RGPT	CC113LRGPR	CC2510F16RHHR	CC430F6137IRGCR
CC110LRGPR	CC113LRGPT	CC2510F16RHHT	CC430F6137IRGCT
CC110LRGPT	CC1150RGVR	CC2510F32RHHR	CC430F6143IRGCR
CC1110F16RHHR	CC1150RGVT	CC2510F32RHHT	CC430F6145IRGCR
CC1110F16RHHT	CC115LRGPR	CC2510F8RHHR	CC430F6147IRGCR
CC1110F32RHHR	CC115LRGPT	CC2510F8RHHT	CC430F6147IRGCT
CC1110F32RHHT	CC1175RHBR	CC2544RHB	SES2510F32RHHR
CC1110F8RHHR	CC1175RHBT	CC2544RHBR	TLMW401RHBR

Qualification Report

CMCU QFN Offload to Carsem Suzhou (CSZ)

Qualification Test: On-going

Product Attributes

Attributes	Qual Device: <u>CC1020RSSR</u>	Qual Device: <u>CC110LRGPR</u>	Qual Device: <u>CC1110F16RHHR</u>	Qual Device: <u>CC1120RHBR</u>	Qual Device: <u>CC1260RGZR</u>	Qual Device: <u>CC430F6137IRGCR</u>
Assembly Site	CARSEM	CARSEM	CARSEM	CARSEM	CARSEM	CARSEM
Package Family	QFN 7 x 7 mm	QFN 4 x 4 mm	QFN 6 x 6 mm	QFN 5 x 5 mm	QFN 7 x 7 mm	QFN 9 x 9 mm
Wafer Fab Supplier	AMS	TSMC	TSMC	TSMC	TSMC	TSMC
Technology	0.35um	0.18um	0.18um-Flash	0.18um	0.18um	0.18um-Flash

- QBS: Qual By Similarity

- All Qual devices are qualified at Level3-260C.

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>CC1020RSSR</u>	Qual Device: <u>CC110LRGPR</u>	Qual Device: <u>CC1110F16RHHR</u>
HTSL	High Temp Storage Bake 150C	168 hours	3/230/0	-	-
HTSL	High Temp Storage Bake 150C	1000 hours	Target date: 12/15/17	-	-
TC	Temperature Cycle, -55/125C	700 cycles	3/231/0	1/77/0	1/77/0
THB	Biased Temperature and Humidity, 85C/85%RH	600 hours	3/78/0	-	-
THB	Biased Temperature and Humidity, 85C/85%RH	1000 hours	Target date: 12/15/17	-	-
AC	Autoclave 121C	96 hours	Target date: 12/15/17	1/77/0	1/77/0
UHAST	Unbiased HAST 110C/85%RH	264 hours	3/231/0	1/77/0	1/77/0

Type	Test Name / Condition	Duration	Qual Device: <u>CC1120RHBR</u>	Qual Device: <u>CC1260RGZR</u>	Qual Device: <u>CC430F6137IRGCR</u>
HTSL	High Temp Storage Bake 150C	168 hours	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 hours	-	-	Target date: 12/15/17
TC	Temperature Cycle, -55/125C	700 cycles	1/77/0	3/231/0	-
TC	Temperature Cycle, -65/150C	500 cycles	-	-	3/231/0
BHAST	Biased HAST 110C/85%RH	264 hours	-	-	Target date: 12/15/17
AC	Autoclave 121C	96 hours	1/77/0	3/231/0	3/231/0
UHAST	Unbiased HAST 110C/85%RH	264 hours	1/77/0	3/231/0	3/231/0

Type	Test Name / Condition	Duration	Qual Device: <u>CC1120RHBR</u>	Qual Device: <u>CC1260RGZR</u>	Qual Device: <u>CC430F6137IRGCR</u>
CDM	ESD – CDM	+/-500V	1/3/0	-	1/3/0
HBM	ESD – HBM	+/-2000V	1/3/0	-	1/3/0

- 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