PCN Number:		201	4032700	0				PCN Dat	te:	03/31/2014	
Title:	Qualification of Carsem Suzhou (CSZ) as Additional Assembly and Test Site for select devices in QFN package										
Custome	r Contact:	PCN /	Manager	Phon	<b>e:</b> +1(2	214)480-603	7	Dept:	Qua	lity Services	
*Proposed 1 <sup>st</sup> Ship Date			07/01/2	2014		ted Sample		Date Provided at			
	•		07/01/2	2014	Availa	bility:		Sam	ple r	request	
Change T								144 C		<u> </u>	
Assembly Site Assembly Process				_ Desig	in Sheet			Wafer Bump Site			
	embly Materia				number	change		Wafer Bump Material			
	chanical Specif			Test S		change	Η	Wafer Bump Process Wafer Fab Site			
	king/Shipping				Process					Materials	
								Wafer	Fab F	Process	
				PCN	N Deta	ils					
)escripti	on of Change	e:									
					LA	TI Clark		CSZ			
Mount	Compound	PZ	0031		7768	4207768		43514			
	Compound Device: Addi	tional	A/T site	4207 e with (	7768 Cu Wire	4207768		43514	13	]	
Group 2 I	Device: Addi	tional	A/T site NSE	4207 e with ( M	7768 Cu Wire LA	4207768 <b>TI Clark</b>		43514 <b>CSZ</b>	13		
Group 2 I	Device: Addi	<b>tional</b> PZ	<b>A/T site</b> <b>NSE</b> 20031	4207 e with ( M 4207	7768 Cu Wire LA 7768	4207768 <b>TI Clark</b> 4207768		43514 <b>CSZ</b> 43514	13		
Group 2 I	Device: Addi	<b>tional</b> PZ	A/T site NSE	4207 e with ( M 4207	7768 Cu Wire LA	4207768 <b>TI Clark</b>		43514 <b>CSZ</b>	13		
Group 2 I Mount Co Wire Fest cover test MQ.	Device: Addi ompound rage, insertior	<b>tional</b> PZ	<b>A/T site</b> <b>NSE</b> 20031 Au	4202 e with ( 4202 4202 A	7768 <b>Cu Wire</b> LA 7768	4207768 <b>TI Clark</b> 4207768 Au	rren	43514 <b>CSZ</b> 43514 Cu	13 13	verified with	
Group 2 I Mount Co Wire Fest cover test MQ.	Device: Addi	<b>tional</b> PZ	<b>A/T site</b> <b>NSE</b> 20031 Au	4202 e with ( 4202 4202 A	7768 <b>Cu Wire</b> LA 7768	4207768 <b>TI Clark</b> 4207768 Au	rren	43514 <b>CSZ</b> 43514 Cu	13 13	verified with	
Group 2 I Mount Co Wire Test cover test MQ. Reason fo	Device: Addi ompound rage, insertior	<b>tional</b> PZ	<b>A/T site</b> <b>NSE</b> 20031 Au	4202 e with ( 4202 4202 A	7768 <b>Cu Wire</b> LA 7768	4207768 <b>TI Clark</b> 4207768 Au	rren	43514 <b>CSZ</b> 43514 Cu	13 13	verified with	
Group 2 I Mount Co Wire Fest cover test MQ. Reason fo Continuity	Device: Addi ompound rage, insertior or Change:	tional PZ ns, con	A/T site NSE 20031 Au ditions w	4207 e with ( 4207 4207 A vill rema	7768 Cu Wire LA 7768 Su in consis	4207768 <b>TI Clark</b> 4207768 Au stent with cu		43514 <b>CSZ</b> 43514 Cu It testing	I3 I3 and		
Group 2 I Mount Co Wire Test cover est MQ. Reason fo Continuity	Device: Addi ompound rage, insertior or Change: of supply.	tional PZ ns, con	A/T site NSE 20031 Au ditions w	4207 e with ( 4207 4207 A vill rema	7768 Cu Wire LA 7768 Su in consis	4207768 <b>TI Clark</b> 4207768 Au stent with cu		43514 <b>CSZ</b> 43514 Cu It testing	I3 I3 and		
Group 2 I Mount Co Wire Fest cover test MQ. Reason fo Continuity L) To alig electric	Device: Addi ompound rage, insertior or Change: r of supply. In with world t	tional PZ ns, con	A/T site NSE 20031 Au ditions w	4207 e with ( 4207 4207 A vill rema	7768 <b>LA</b> 7768 in consis use wirir	4207768 TI Clark 4207768 Au stent with cu		43514 <b>CSZ</b> 43514 Cu It testing	I3 I3 and		
An and the second secon	Device: Addi ompound rage, insertior or Change: of supply. of supply. on with world to cal properties	tional PZ ns, con techno	A/T site NSE 20031 Au ditions w logy tren our Asse	4207 e with ( 4207 4207 A vill rema	7768 <b>LA</b> 7768 in consis use wirir	4207768 TI Clark 4207768 Au stent with cu		43514 <b>CSZ</b> 43514 Cu It testing	I3 I3 and		
Group 2 I Mount Co Wire Test cover est MQ. Reason fo Continuity .) To alig electric 2) Maxim 3) Cu is e	Device: Addi ompound rage, insertion or Change: of supply. In with world to cal properties ize flexibility to easier to obtai	tional PZ ns, con techno within n and	A/T site NSE 20031 Au ditions w logy tren our Asse stock	4207 e with ( 4207 A vill rema	7768 <b>LA</b> 7768 Trian consis use wirin est produ	4207768 TI Clark 4207768 Au stent with cu	nceo	43514 CSZ 43514 Cu at testing	i3 iand	and	
Group 2 I Mount Co Wire Test cover est MQ. Reason fo Continuity () To alig electric 2) Maxim 3) Cu is e	Device: Addi ompound rage, insertior or Change: of supply. In with world to cal properties ize flexibility of	tional PZ ns, con techno within n and	A/T site NSE 20031 Au ditions w logy tren our Asse stock	4207 e with ( 4207 A vill rema	7768 <b>LA</b> 7768 Trian consis use wirin est produ	4207768 TI Clark 4207768 Au stent with cu	nceo	43514 CSZ 43514 Cu at testing	i3 iand	and	

## Changes to product identification resulting from this PCN:

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

Sample product shipping label (not actual product label)



(1P) SN74LS07NSR (a) 2000 (D) 0336 31T)LOT: 3959047MLA 4W) TKY(1T) 7523483512 (P) (2P) REV: (2P) REV: (V) 0033317 (20L) CSO:SHE (21L) CCO:USA (22L) ASO:MLA (23L) ACO:MYS

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

## Product Affected: Group 1 Devices – Additional A/T site

BQ24079TRGTR	TLV62090RGTT	TPS54418RTET	TPS62130RGTRF0				
BQ24079TRGTT	TLV62130RGTR	TPS61087DRCR	TPS62130RGTT				
FX028	TLV62130RGTT	TPS61087DRCRG4	TPS65261-1RHBR				
HPA00835RTER	TPA6133A2RTJR	TPS61087DRCT	TPS65261-1RHBT				
HPA022642RTJR	TPA6133A2RTJT	TPS61087DRCTG4	TPS65261RHBR				
SN1304025RHBR	TPS2543RTER	TPS62130DRGTR	TPS65261RHBT				
SN1304025RHBT	TPS2543RTET	TPS62130DRGTT					
TLV62090RGTR	TPS54418RTER	TPS62130RGTR					
Product Affected: Group 2 Devices – Additional A/T site with Cu Wire							
TPS62080ADSGR TPS62080ADSGT TPS65632AGRTER							

## Qualification Data: Approved 12/14/2012

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle # 1: 2ELVC412CDRTJR (MSL2-260C)							
Package Construction Details							
Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086				
# Pins-Designator, Family:	20-RTJ, WQFN	Mount Compound:	SID#435143				
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Cu				

Qualification: 🗌 Plan	Test Results						
Deliability Teet	Conditions	Conditions		Sample Size/Fail			
Reliability Test	Conditions			1	Lot#2	Lot#3	
**High Temp. Storage Bake	170C (420hrs)		77/(	0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 H	Hrs)	77/0	0	77/0	77/0	
**T/C -65C/150C	-65C/+150C (500	Сус)	77/0	0	77/0	77/0	
Manufacturability	(per mfg. Site spe	ecification)	Pass		Pass	Pass	
Moisture Sensitivity	(level 2 @ 260C p		12/0		-	-	
Notes **- Preconditioning s	sequence: Level 2-260	)C.					
Qual V	ehicle # 2: ONET85	01PBRGTR (MSL2-26	50C)				
	Package Constr	uction Details					
Assembly Site:	CARSEM SUZHOU	Mold Compour	nd: SI	ID#	441086		
# Pins-Designator, Family:	16-RGT, VQFN	Mount Compoun	d: SI	ID#	435143		
	NiPdAu, Cu	Bond Wir	e: 1.	.0 M	lil Dia., C	Cu	
Qualification: 🗌 Plan	<b>Test Results</b>						
Reliability Test	Conditions		Sample Size/Fail			Fail	
Reliability Test	Conditions		Lot#	1	Lot#2	Lot#3	
**High Temp. Storage Bake	170C (420hrs)		77/0		77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)		77/0	0	77/0	77/0	
**T/C -65C/150C	-65C/+150C (500 Cyc)		77/0	0	77/0	77/0	
Manufacturability (Assembly)	(per mfg. Site specification)			s	Pass	Pass	
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)			0	-	-	
	sequence: Level 2-260						
Qual		728RHAR (MSL3-260	)C)				
	-	Package Construction Details					
Assembly Site		CARSEM SUZHOU Mold Compound: SID#441086					
# Pins-Designator, Family							
Lead frame (Finish, Base)		•			Dia., Cu		
Qualification: 🗌 Plan	Test Results						
Reliability Test	Conditions	Conditions			ple Size/		
			Lot#		Lot#2	Lot#3	
**High Temp. Storage Bake	170C (420 Hrs)			)	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96 Hrs)			)	75/0	77/0	
**T/C -65C/150C	-65C/+150C (500 Cyc)			)	77/0	77/0	
Manufacturability	(per mfg. Site specification)			5	Pass	Pass	
Moisture Sensitivity	(level 3 @ 260C peak +5/-0C) 12/0					-	
Notes **- Preconditioning sequence: Level 3-260C.							
Qual	Vehicle # 4: TPS532	211RGTR (MSL2-260	)C)				
	Package Constr	uction Details					
Assembly Site:	CARSEM SUZHOU	Mold Compound:	: SID#441086				
# Pins-Designator, Family:	16-RGT, VQFN	•		\$435143			
	NiPdAu, Cu	Bond Wire:	1.0	Mil D	ia., Cu		

Qualification: 🗌 Plan 🛛	🛛 Test Results					
Reliability Test	Conditions		Sample Size/Fail			
Reliability rest	Conditions	Conditions		Lot#2	Lot#3	
**Biased HAST	130C/85%RH (96	bhrs)	77/0	76/0	77/0	
**High Temp. Storage Bake	170C (420hrs)		77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96	Hrs)	77/0	77/0	77/0	
**T/C -65C/150C	-65C/+150C (500	) Сус)	77/0	77/0	77/0	
Manufacturability (Assembly)	(per mfg. Site spe	ecification)	Pass	Pass	Pass	
Moisture Sensitivity	(level 2 @ 260C p		12/0	-	-	
Notes **- Preconditioning se	quence: Level 2-26	0C.				
Qual \	/ehicle # 5: UCD92	211RHAR (MSL3-260	C)			
Package Construction Details						
Assembly Site: C	ARSEM SUZHOU	SID#441086				
# Pins-Designator, Family: 40	RHA, VQFN Mount Compound:		SID#435143			
Lead frame (Finish, Base): N	dAu, Cu Bond Wire:		0.8 Mil Dia., Cu			
Qualification: 🗌 Plan 🛛 Test Results						
Reliability Test	Conditions		Sample Size/Fail			
Reliability rest			Lot#1	Lot#2	Lot#3	
**High Temp. Storage Bake	170C (420hrs)		77/0	77/0	77/0	
**Autoclave 121C	121C, 2 atm (96	77/0	77/0	77/0		
**T/C -65C/150C	-65C/+150C (500	77/0	77/0	77/0		
Salt Atmosphere	24 hrs	22/0	22/0	22/0		
Manufacturability (Assembly)	(per mfg. Site specification)		Pass	Pass	Pass	
Moisture Sensitivity	(level 3 @ 260C p	(level 3 @ 260C peak +5/-0C)			-	
Notes **- Preconditioning sequence: Level 3-260C.						

For questions regarding tis 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