




PCN Number:	20220412001.1		PCN Date:	April 21, 2022												
Title:	Qualification of TI Chengdu as an additional Assembly site for select package device															
Customer Contact:	PCN Manager	Dept:	Quality Services													
Proposed 1st Ship Date:	Jul 21, 2022	Estimated Sample Availability:	Date provided at sample request													
Change Type:																
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site											
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material											
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process											
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site											
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials											
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process											
PCN Details																
Description of Change:																
Texas Instruments is pleased to announce the qualification of TI Chengdu (CDAT) as an additional Assembly site for the list of devices shown below. Material differences between sites are as follows.																
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>TI Clark</td> <td>QAB</td> <td>PHL</td> <td>Angeles City</td> </tr> <tr> <td>TI Chengdu</td> <td>CDA</td> <td>CHN</td> <td>Chengdu</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	TI Clark	QAB	PHL	Angeles City	TI Chengdu	CDA	CHN	Chengdu
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City													
TI Clark	QAB	PHL	Angeles City													
TI Chengdu	CDA	CHN	Chengdu													
Group 1 Material Differences: No material difference between sites																
Group 2 Material Differences:																
<table border="1"> <thead> <tr> <th></th> <th>Clark</th> <th>CDAT</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>4208625</td> <td>4222198</td> </tr> </tbody> </table>						Clark	CDAT	Mold Compound	4208625	4222198						
	Clark	CDAT														
Mold Compound	4208625	4222198														
Reason for Change:																
Continuity of Supply																
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																
None																
Impact on Environmental Ratings:																
Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.																
<table border="1"> <thead> <tr> <th>RoHS</th> <th>REACH</th> <th>Green Status</th> <th>IEC 62474</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> <td><input checked="" type="checkbox"/> No Change</td> </tr> </tbody> </table>					RoHS	REACH	Green Status	IEC 62474	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change				
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<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change													
Changes to product identification resulting from this PCN:																
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin (22L)</th> <th>Assembly Country Code (23L)</th> <th>Assembly City</th> </tr> </thead> <tbody> <tr> <td>CLARK</td> <td>QAB</td> <td>PHL</td> <td>Angeles City, Pampanga</td> </tr> <tr> <td>CDAT</td> <td>CDA</td> <td>CHN</td> <td>Chengdu</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City	CLARK	QAB	PHL	Angeles City, Pampanga	CDAT	CDA	CHN	Chengdu
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City													
CLARK	QAB	PHL	Angeles City, Pampanga													
CDAT	CDA	CHN	Chengdu													
Sample product shipping label (not actual product label)																

 TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q:	 G4		(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				
<table border="1"> <tr> <td>MSL 2 / 260C/1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 / 235C/UNLIM</td> <td>03/29/04</td> </tr> </table> OPT: ITEM: 39 LBL: 5A (L)T0:1750	MSL 2 / 260C/1 YEAR	SEAL DT	MSL 1 / 235C/UNLIM	03/29/04			
MSL 2 / 260C/1 YEAR	SEAL DT						
MSL 1 / 235C/UNLIM	03/29/04						
Group 1 Product Affected:							
BQ28Z610DRZR	BQ28Z610DRZR-R1	SN700011DRZR	SN700012DRZR				
Group 2 Product Affected:							
SN28Z719DRZR							

Qualification Report

Approve Date 06-Apr-2022

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>SN28Z719DRZR</u>	Qual Device: <u>SN28Z719DRZR</u>	QBS Product Reference: <u>BQ9002DRZR</u>	QBS Product Reference: <u>BQ9002DRZTMC</u>	QBS Process Reference: <u>TPS2543QRTE</u>	QBS Package Reference: <u>BQ9000RSMRM C</u>
AC	Autoclave 121C	96 Hours	-	-	-	-	3/231/0	3/231/0
CDM	ESD - CDM	1000 V	-	-	-	1/3/0	-	-
DS	Die Shear	QSS 009-009	-	-	-	-	-	3/30/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	1/Pass	1/Pass	3/90/0	1/Pass
ELFR	Early Life Failure Rate, 150C	24 Hours	-	-	-	-	3/2400/0	-
HAST	Biased HAST 130C/85%RH	96 Hours	-	-	-	-	3/231/0	1/77/0
HBM	ESD - HBM	2500 V	-	-	-	1/3/0	-	-
HBM	ESD - HBM - Q100	4000 V	-	-	-	-	1/3/0	-
HTOL	Life Test, 125C	1000 hours	-	-	-	-	-	1/77/0
HTOL	Life Test, 150C	408 Hours	-	-	-	-	3/231/0	-
HTSL	High Temp Bake 170C	420 hours	-	-	-	-	-	3/231/0
HTSL	High Temp Bake 175C	500 Hours	-	-	-	-	3/149/0	-
LU	Auto Latch-up	(Per AEC Q100-004)	-	-	-	-	1/6/0	-
LU	Latch-up	25C	-	-	-	1/6/0	-	-

Type	Test Name / Condition	Duration	Qual Device: <u>SN28Z719DRZR</u>	Qual Device: <u>SN28Z719DRZR.</u>	QBS Product Reference: <u>BQ9002DRZR</u>	QBS Product Reference: <u>BQ9002DRZTMC</u>	QBS Process Reference: <u>TPS2543QRTE</u>	QBS Package Reference: <u>BQ9000RSMRM C</u>
MSL	Moisture Sensitivity, L2	(L2 / 260C)	-	-	-	-	-	3/36/0
SD	Surface Mount Solderability	Pb Free	-	-	-	-	2/30/0	-
TC	Temp Cycle - 65/150C	500 Cycles	-	-	-	-	3/231/0	3/231/0
YLD	FTY and Bin Summary	-	1/Pass	1/Pass	-	-	-	-

- QBS: Qual By Similarity

- Device SN28Z719DRZR contains multiple dies.

- Device SN28Z719DRZR. contains multiple dies.

- 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

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