

<b>PCN Number:</b>	20220811000.1		<b>PCN Date:</b>	August 11, 2022																
<b>Title:</b>	Qualification of TI Chengdu as an additional Assembly site for select devices																			
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services																	
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Nov 16, 2022	<b>Sample requests accepted until:</b>	Sept 16, 2022*																	
*Sample requests received after (Sept 16 2022) will not be supported.																				
<b>Change Type:</b>																				
<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 checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials															
				<input type="checkbox"/>	Wafer Fab Process															
<b>PCN Details</b>																				
<b>Description of Change:</b>																				
Texas Instruments is pleased to announce the qualification of TI Chengdu as additional Assembly Site for Select Devices listed in the "Product Affected" Section. 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 City</th> </tr> </thead> <tbody> <tr> <td>UTAC</td> <td>NSE</td> <td>THA</td> <td>Bangkok</td> </tr> <tr> <td>TI Clark</td> <td>QAB</td> <td>PHL</td> <td>Angeles City, Pampanga</td> </tr> <tr> <td><a href="#">TI Chengdu</a></td> <td><a href="#">CDA</a></td> <td><a href="#">CHN</a></td> <td><a href="#">Chengdu</a></td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City	UTAC	NSE	THA	Bangkok	TI Clark	QAB	PHL	Angeles City, Pampanga	<a href="#">TI Chengdu</a>	<a href="#">CDA</a>	<a href="#">CHN</a>	<a href="#">Chengdu</a>
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City																	
UTAC	NSE	THA	Bangkok																	
TI Clark	QAB	PHL	Angeles City, Pampanga																	
<a href="#">TI Chengdu</a>	<a href="#">CDA</a>	<a href="#">CHN</a>	<a href="#">Chengdu</a>																	
<b>Group 1 Material Differences:</b>																				
	<b>UTAC</b>	<b>TI Chengdu</b>																		
Die thickness	15mils	10.5mils																		
<b>Group 2 Material Differences:</b>																				
	<b>TI Clark</b>	<b>TI Chengdu</b>																		
Die attach	4212088	4223872																		
Mold compound	4208625	4222198																		
<b>Reason for Change:</b>																				
Continuity of supply.																				
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																				
None																				
<b>Impact on Environmental Ratings</b>																				
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.																				
<b>RoHS</b>	<b>REACH</b>	<b>Green Status</b>	<b>IEC 62474</b>																	
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change																	
<b>Changes to product identification resulting from this PCN:</b>																				

Assembly Site		
UTAC	Assembly Site Origin (22L)	ASO: NSE
TI Clark	Assembly Site Origin (22L)	ASO: QAB
CDAT	Assembly Site Origin (22L)	ASO: CDA

Sample product shipping label (not actual product label)



TEXAS INSTRUMENTS  
 MADE IN: Malaysia  
 2DC: 2Q  
 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

**Group 1 Product Affected:**

LMR36503RFRPER	LMR36506R5RPER	LMR36506RFRPER
LMR36506R3RPER	LMR36506RF3RPER	LMR36506RRPER

**Group 2 Product Affected:**

BQ29700DSER	BQ29707DSER	BQ29718DSER	BQ29729DSER
BQ29700DSET	BQ29707DSET	BQ29718DSET	BQ29729DSET
BQ29701DSER	BQ29717DSER	BQ29723DSER	
BQ29701DSET	BQ29717DSET	BQ29723DSET	

## Group 1 Qualification Report

Approve Date 16-June-2022

### Qualification Results

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

Type	Test Name	Condition	Duration	Qual Device: <u>LMR36506xRxRPER</u>	QBS Reference: <u>BQ25792RQMR</u>	QBS Reference: <u>LMR36506MSCRPERQ1</u>
HAST	Biased HAST	110C/85%RH	264 Hours	-	-	3/231/0
HAST	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	-
UHA	Autoclave	121C/15psig	96 Hours	-	-	3/231/0
UHA	Unbiased HAST	130C/85%RH	96 Hours	-	3/231/0	-
TC	Temperature Cycle	-55C/125C	700 Cycles	-	3/231/0	-
TC	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	-	3/231/0
HTSL	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0
HTSL	High Temperature Storage Life	170C	420 Hours	-	3/231/0	-
HTOL	Life Test	150C	408 Hours	-	-	3/231/0
ESD	ESD CDM	-	500 Volts	-	-	1/3/0
ESD	ESD HBM	-	2000 Volts	-	-	1/3/0

LU	Latch up	150C	100mA	-	-	1/3/0
SD	Solderability	4 hour 155C aging	Pb free	-	1/15/0	1/15/0

QBS: Qual By Similarity

Qual Device LMR36506xRxRPER family is qualified at MSL2 260C

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

## Group 2 Qualification Report

Approve Date 03-August-2022

### Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: <u>BQ29700DSER</u>	QBS Reference: <u>BQ29700DSER</u>	QBS Reference: <u>PTPIC2020RTQ RG4</u>	QBS Reference: <u>TPS3703C7500DS ERQ1</u>
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	2/154/2 <sup>1</sup>
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	2/154/0
TC	A4	Temperature Cycle	- 65C/150C	500 Cycles	-	1/77/0	-	2/154/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	2/154/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	1/77/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0	-
ESD	E2	ESD CDM	-	250 Volts	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	1/Pass	-	-

QBS: Qual By Similarity

Qual Device BQ29700DSER is qualified at MSL2 260C

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.

<b>Location</b>	<b>E-Mail</b>
WW PCN Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

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