




<b>PCN Number:</b>	20190906000.1		<b>PCN Date:</b>	Sep 17, 2019	
<b>Title:</b>	Qualification of Aizu as an additional Fab site option 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>	Dec 17, 2019		<b>Estimated Sample Availability:</b>	Date provided at sample request.	
<b>Change Type:</b>					
<input 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 type="checkbox"/>	Test Site	<input 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 checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
		<input type="checkbox"/>	Part number change		
<b>PCN Details</b>					
<b>Description of Change:</b>					
Texas Instruments is pleased to announce the qualification of its AIZU fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.					
<b>Current Fab Site</b>			<b>Additional Fab Site</b>		
<b>Current Fab Site</b>	<b>Process</b>	<b>Wafer Diameter</b>	<b>New Fab Site</b>	<b>Process</b>	<b>Wafer Diameter</b>
CFAB	LBC8LV	200mm	AIZU	LBC8LV	200mm
Qual details are provided in the Qual Data Section.					
<b>Reason for Change:</b>					
Continuity of supply.					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
None					
<b>Changes to product identification resulting from this PCN:</b>					
<b>Fab Site Information:</b>					
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City		
CFAB	CU3	CHN	Chengdu		
<b>AIZU</b>	<b>CU2</b>	<b>JPN</b>	<b>Aizuwakamatsu-shi</b>		
Sample product shipping label (not actual product label)					
 MADE IN: Malaysia 2DC: 20:		 G4		(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483S12 (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 <b>LBL: 5A (L) TO: 1750</b>					
<b>Product Affected:</b>					
SN1702025RSHR	SN1802028RSHR	SN1809018RSHR	SN1809027RSHR		
SN1702027RSHR	SN1805041RSHR	SN1809019RSHR	SN1809028RSHR		
SN1702031RSHR	SN1805042RSHR	SN1809020RSHR	TPS65987DDHRSHR		
SN1702032RSHR	SN1805043RSHR	SN1809021RSHR	TPS65987DDJRSHR		
SN1702034RSHR	SN1805050RSHR	SN1809022RSHR	TPS65987SDHRSHR		
SN1702035RSHR	SN1806026RSHR	SN1809023RSHR	TPS65987SDJRSHR		

SN1702036RSHR	SN1809012RSHR	SN1809024RSHR	TPS65988DHRSHR
SN1710007RSHR	SN1809013RSHR	SN1809025RSHR	TPS65988DHRSHR
SN1710008RSHR	SN1809014RSHR	SN1809026RSHR	TPS65988DJRSHR
SN1710009RSHR			

## Qualification Report

Approve Date 22-Aug-2019

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS65988DHRSHR	Qual Device: TPS65988DHRSHR
AC	Autoclave 121C	96 Hours	2/154/0	1/77/0
ED	Electrical Characterization	Per Datasheet Parameters	2/60/0	1/30/0
ELFR	Early Life Failure Rate, 125C	48 Hours	2/1600/0	1/800/0
HAST	Biased HAST, 130C/85%RH	96 Hours	2/154/0	1/77/0
HBM	ESD - HBM	1500 V	2/6/0	1/3/0
CDM	ESD - CDM	1500 V	2/6/0	1/3/0
HTOL	Life Test, 125C	1000 Hours	2/154/0	1/77/0
HTSL	High Temp. Storage Bake, 170C	420, 600 Hours	2/154/0	1/77/0
LU	Latch-up, 25C/75C	(per JESD78)	2/24/0	1/12/0
PC	Preconditioning	Level 3-260C	2/616/0	1/308/0
TC	Temperature Cycle, -65/150C	500, 1000 Cycles	2/154/0	1/77/0
VQR	Visual Quality Reliability Inspection	Post TMCL @ 500cyc	2/Passed	1/Passed
MQ	Manufacturing (Fab)	(per mfg. Site specification)	3/Passed	
MQ	Manufacturing (Assembly)	(per mfg. Site specification)	1/Passed	1/Passed

- QBS: Qual By Similarity

- Qual Device TPS65988DHRSH is qualified at LEVEL3-260C

- 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 you can contact your local Field Sales Representative.

Location	E-Mail
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
WW PCN Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

### IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale ([www.ti.com/legal/termsofsale.html](http://www.ti.com/legal/termsofsale.html)) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.