

<b>PCN Number:</b>	20180510000.1A			<b>PCN Date:</b>	Jul 11, 2018																		
<b>Title:</b>	Qualification of MIHO8 as an additional Wafer Fab Site option for select devices in LBC8LV Technology																						
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>		<b>Dept:</b>	Quality Services																			
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Oct 11, 2018	<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>																							
<p>The purpose of <b>Revision A</b> is to announce the <u>addition</u> of new devices that were not included on the original PCN notification. These new devices are highlighted and <b>bolded</b> in the device list below. The expected first shipment date for these new devices will be 90 days from this notice for these newly added devices only.</p> <p>Texas Instruments is pleased to announce the qualification of its MIHO8 fabrication facility as an additional Wafer Fab source for the selected devices listed in "Product Affected" section.</p>																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Current Sites</th> <th colspan="3">Additional Sites</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>DP1DM5</td> <td>LBC8LV</td> <td>200mm</td> <td>MIHO8</td> <td>LBC8LV</td> <td>200mm</td> </tr> </tbody> </table>						Current Sites			Additional Sites			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	DP1DM5	LBC8LV	200mm	MIHO8	LBC8LV	200mm
Current Sites			Additional Sites																				
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																		
DP1DM5	LBC8LV	200mm	MIHO8	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>Current</b>																							
Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City																				
DP1DM5	DM5	USA	Dallas																				
<b>New Fab Site</b>																							
Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City																				
MIHO8	MH8	JPN	Ibaraki																				

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

**Product Affected:**

ISO7710D	ISO7721DR	ISO7731DBQ	ISO7741DBQR
ISO7710DR	ISO7721DW	ISO7731DBQR	ISO7741DW
ISO7710DW	ISO7721DWR	ISO7731DW	ISO7741DWR
ISO7710DWR	ISO7721FBDW	ISO7731DWR	ISO7741FBDW
ISO7710FD	ISO7721FBDWR	ISO7731FBDW	ISO7741FBDWR
ISO7710FDR	ISO7721FD	ISO7731FBDWR	ISO7741FDBQ
ISO7710FDW	ISO7721FDR	ISO7731FDBQ	ISO7741FDBQR
ISO7710FDWR	ISO7721FDW	ISO7731FDBQR	ISO7741FDW
ISO7720D	ISO7721FDWR	ISO7731FDW	ISO7741FDWR
ISO7720DR	ISO7730DBQ	ISO7731FDWR	ISO7742DBQ
ISO7720DW	ISO7730DBQR	ISO7740DBQ	ISO7742DBQR
ISO7720DWR	ISO7730DW	ISO7740DBQR	ISO7742DW
ISO7720FD	ISO7730DWR	ISO7740DW	ISO7742DWR
ISO7720FDR	ISO7730FDBQ	ISO7740DWR	ISO7742FDBQ
ISO7720FDW	ISO7730FDBQR	ISO7740FDBQ	ISO7742FDBQR
ISO7720FDWR	ISO7730FDW	ISO7740FDBQR	ISO7742FDW
ISO7721BDW	ISO7730FDWR	ISO7740FDW	ISO7742FDWR
ISO7721BDWR	ISO7731BDW	ISO7740FDWR	<b>UCC21520ADW</b>
ISO7721D	ISO7731BDWR	ISO7741DBQ	<b>UCC21520ADWR</b>

## Qualification Report

### Megatron MIHO Fab Offload UCC21520ADWR Approved 07/02/2018

#### Product Attributes

Attributes	Qual Device: UCC21520ADWR	QBS Product Reference: UCC21520AQDWRQ	QBS Product Reference: UCC21520QDWRQ1	QBS Process Reference: ISO7741FQDWQ1
Assembly Site	TITL	TITL	TAI	TAI
Package Family	SOIC	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MIHO	MIHO	DMO5	MIHO8
Wafer Fab Process	LBC8LVISO	LBC8LVISO	LBC8LVISO	LBC8LVISO

- QBS: Qual By Similarity
- Qual Device UCC21520AQDWRQ is qualified at LEVEL2-260CG
- Device UCC21520ADWR contains multiple dies.
- Device UCC21520AQDWRQ contains multiple dies.

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: UCC21520ADWR	Qual Device: UCC21520AQDWRQ	QBS Product Reference: UCC21520QDWRQ1	QBS Process Reference: ISO7741FQDWQ1
AC	Autoclave 121C	96 Hours	-	1/77/0	2/154/0	3/231/0
CDM	ESD - CDM	2000 V	1/3/0	1/3/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-	3/2400/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	1/77/0	3/231/0	3/231/0
HBM	ESD - HBM	5000 V	1/3/0	1/3/0	-	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	1/76/0	3/230/0	3/231/0
HTSL	High Temp Storage Bake 150C	1000	-	1/45/0	1/45/0	-
HTSL	High Temp Storage Bake 175C	500 Hours	-	-	-	3/231/0
LU	Latch-up	Ta(room)	1/6/0	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	1/77/0	3/230/0

- 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

## Qualification Report

**LBC8LVISO in Miho8**  
**Approve Date 28-Jun-2017**

### Product Attributes

Attributes	Qual Device: ISO7741FQDWQ1
Assembly Site	TAI
Package Family	SOIC
Flammability Rating	UL 94 V-0
Wafer Fab Supplier	MIHO8
Wafer Fab Process	LBC8LVISO

- QBS: Qual By Similarity
- Qual Device ISO7741FQDWQ1 is qualified at LEVEL2-260C
- Device ISO7741FQDWQ1 contains multiple dies.

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: ISO7741FQDWQ1
AC	Autoclave 121C	96 Hours	3/231/0
ELFR	Early Life Failure Rate, 125C	48 Hours	3/2600/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
HTOL	Life Test, 125C	1000 Hours	3/231/0
HTSL	High Temp Storage Bake 175C	500 Hours	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/230/0
WBP	Bond Pull	Wires	3/228/0
WBS	Wire Bond Shear	Wires	3/228/0

- 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 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>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>