12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250604003.1
Qualification of RFAB using qualified Process Technology, Die Revision, additional Assembly/Test site (PHI), & BOM options for select devices
Change Notification / Sample Request

Date: June 04, 2025
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) process.

TI requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 60 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

Changes outlined in this notification underscore our commitment to product longevity and supply continuity, as well as our continued efforts to transition to newer, more efficient manufacturing processes and technologies. Specifically, this particular notification is related to TI's multiyear transition plan for our two remaining 150-millimeter production lines (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). SFAB closure activities are expected to begin by the end of 2025. DFAB will remain open with a smaller set of 200mm technologies and GaN.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the Change Management team. For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Change Management Team
SC Business Services

20250604003.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records**,** you have recently purchased these devices**.** The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LMT90DBZR	NULL
LM50CIM3X/NOPB	LM50CIM3X/NOPB
LM50BIM3X/NOPB	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	20250604003.1	**PCN Date:**	June 04, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, additional Assembly/Test site (PHI), & BOM options for select devices		
Customer Contact:	Change Management team	**Dept:**	Quality Services
Proposed 1st Ship Date:	September 02, 2025	**Sample requests accepted until:**	August 03, 2025*

***Sample requests received after August 03, 2025 will not be supported.**

Change Type:		
☒ Assembly Site	☒ Design	☐ Wafer Bump Material
☐ Assembly Process	☒ Data Sheet	☐ Wafer Bump Process
☒ Assembly Materials	☐ Part number change	☒ Wafer Fab Site
☐ Mechanical Specification	☐ Test Site	☒ Wafer Fab Materials
☒ Packing/Shipping/Labeling	☐ Test Process	☒ Wafer Fab Process

PCN Details

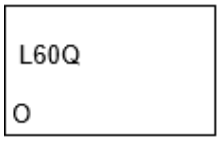
Description of Change:

Texas Instruments is pleased to announce the addition of RFAB using the TIB qualified process technology, PHI as an additional Assembly/Test site, and additional Assembly BOM options for the device listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
GFAB6, SFAB	LFAST	150 mm	RFAB	TIB	300 mm

The die was also changed as a result of the process change.

Construction differences are as follows:

	Current site	**Additional site**
Assembly Site	TIEMA	**PHI**
Lead Finish	Matte Sn	NiPdAu
Bond wire diam/type	0.96mil Cu	0.8 mil Cu
Mold Compound	8097131	4222198
Die attach material	4213245	8095733
Device marking	 Top side	 Binary marking
	 Backside	No backside marking
Die Thickness	254um	152um

Test coverage, insertions, conditions will remain consistent with current testing.

The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history.

TEXAS INSTRUMENTS

LM50

SNIS118H – JULY 1999 – REVISED MAY 2025

Changes from Revision G (January 2017) to Revision H (May 2025) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document ... 1
- Moved the automotive device to a standalone data sheet (SNIS249) ... 1
- Added specifications and graphs for the New Device and comparison of the Legacy Device throughout the document ... 1
- Added *Device Comparison*, *Device Orderable Options*, and *Nomenclature Details* tables ... 3
- Deleted Machine Model (MM) Electrostatic discharge ... 5
- Changed the specified temperature range for LM50B from -25°C to 100°C (in the legacy chip) to -40°C to 125°C (in the new chip) ... 5
- Added DBZ package "Thermal Information" for the New chip ... 5
- Added "Turn-on Time" for both Legacy chip and New chip ... 6
- Added "*Operating current*" and "*Change of quiescent current*" for the New chip ... 6
- Updated the *Design Parameters* table to correct typos ... 12

TEXAS INSTRUMENTS

LMT90

SNIS177C – MARCH 2013 – REVISED MAY 2025

Changes from Revision B (September 2015) to Revision C (May 2025) **Page**

- Updated the numbering forms for tables, figures, and cross-references throughout the document ... 1
- Updated the document to reflect the latest family format and standards ... 1
- Added specifications and graphs for the New device and compared the device with the Legacy Device throughout the document ... 1
- Added *Device Comparison*, *Device Orderable Options*, and *Nomenclature Details* tables ... 3
- Deleted Machine Model (MM) Electrostatic discharge ... 5
- Added DBZ package "Thermal Information" for the New chip ... 5
- Added "Turn-on Time" for both Legacy chip and New chip ... 6
- Added "Operating current" and "Change of quiescent current" for the New chip ... 6

TEXAS INSTRUMENTS

S7001024

SLVSIW8 – MAY 2025

DATE	REVISION	NOTES
May 2025	*	Initial Release. Moved from the SNIS118 "G" revision to a standalone data sheet.

The S7001024 device is moved from the SNIS118 "G" revision data sheet to the current standalone data sheet. The changes from SNIS118 "G" revision to this document are as follows:

- Added specifications and graphs for the New S7001024 and compared the device with the Legacy S7001024 throughout the document
- Added "Device Comparison", "Device Orderable Options" and "Nomenclature Details" tables
- Deleted Machine Model (MM) Electrostatic discharge
- Added DBZ package "Thermal Information" for the New chip
- Added "Turn-on Time" for both Legacy chip and New chip
- Added "Operating current" and "Change of quiescent current" for the New chip
- Updated the typos in "Design Parameters" table

The links to the revised datasheets are available in the table below:

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LM50	SNIS118G	**SNIS118H**	http://www.ti.com/product/LM50
LMT90	SNIS177B	**SNIS177C**	http://www.ti.com/product/LMT90
S7001024	SNIS118G	**SLVSIW8**	See note below

The document is not available on the TI website. Please contact the document owner at m-nazari@ti.com or visit the OneRelease site for a copy of the full datasheet.

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-millimeter and 200-millimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
GFAB6	GF6	GBR	Greenock
SH-BIP-1	SHE	USA	Sherman
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

Current	New
Die Rev [2P]	**Die Rev [2P]**
C	A

Assembly/Test Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TIEMA	CU6	MYS	Melaka
TIPI	**PHI**	**PHL**	**Baguio City**

Sample product shipping label (not actual product label)

Product Affected:

LM50BIM3X/NOPB	LM50BIM3X/NOPB.A	LM50BIM3X/NOPB.B	LM50CIM3X/NOPB
LM50CIM3X/NOPB.A	LM50CIM3X/NOPB.B	LM50CIM3X/S7001024	LM50CIM3X/S7001024.A
LM50CIM3X/S7001024.B	LMT90DBZR	LMT90DBZR.A	LMT90DBZR.B

For alternate parts with similar or improved performance, please visit the product page on TI.com

Qualification Report

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LM50BIM3X/NOPB	Qual Device: LM50CIM3X/NOPB	Qual Device: LM50CIM3X/S7001024	QBS Reference: LM2902BQPWRQ1	QBS Reference: TL432BQDBZRQ1	QBS Reference: TL331QDBVRQ1	QBS Reference: LM60QIM3X/NOPB
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	1/80/0	1/77/0	2/154/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	1/77/0	1/77/0	2/154/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	1/77/0	1/77/0	2/154/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	-	1/77/0	1/77/0
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	-	1/77/0	1/77/0
HTOL	B1	Life Test	150C	408 Hours	-	-	-	3/231/0	-	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	-	-	-	-	-
ESD	E2	ESD CDM	-	750 Volts	1/3/0	-	-	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device LM50BIM3X/NOPB is qualified at MSL1 260C
- Qual Device LM50CIM3X/NOPB is qualified at MSL1 260C
- Qual Device LM50CIM3X/S7001024 is qualified at MSL1 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/

TI Qualification ID: R-NPD-2309-011

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMT90DBZR	QBS Reference: LM2902BQPWRQ1	QBS Reference: TL431BQDBZRQ1	QBS Reference: TL331QDBVRQ1	QBS Reference: LM60QIM3X/NOPB
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	2/160/0	1/77/0	2/154/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	2/154/0	1/77/0	2/154/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	2/154/0	1/77/0	2/154/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	2/158/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	1/77/0	1/77/0
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	-	1/77/0	1/77/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: LMT90DBZR	QBS Reference: LM2902BQPWRQ1	QBS Reference: TL431BQDBZRQ1	QBS Reference: TL331QDBVRQ1	QBS Reference: LM60QIM3X/NOPB
ESD	E2	ESD CDM	-	750 Volts	1/3/0	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device LMT90DBZR is qualified at MSL1 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/

TI Qualification ID: R-NPD-2309-026

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic (family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.