12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20250529001.1
Qualification of RFAB using qualified Process Technology, Die revision, Data sheet update, BOM option and TI Malaysia as an additional Assembly site options for select devices
Change Notification / Sample Request

Date: May 29, 2025
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments 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.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

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.

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

20250529001.1
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
LM5574MTX/NOPB	LM5574MTX/NOPB
LM5574MT/NOPB	LM5574MT/NOPB
LM25574MTX/NOPB	LM25574MTX/NOPB

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

PCN Number:	20250529001.1	PCN Date:	May 29, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die revision, Data sheet update, BOM option and TI Malaysia as an additional Assembly site options for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	August 27, 2025	Sample requests accepted until:	July 28, 2025*

***Sample requests received after July 28, 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 Material
☒	Packing/Shipping/Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to BOM option and TI Malaysia (MLA) as an additional Assembly Site for the devices listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
MFAB	ABCD	200 mm	RFAB	LBC9	300 mm

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

Construction differences are as follows:

Group 1 Device

	Curent A/T Site	Additional A/T Site
	TIEM	MLA
Wire bond diam/type	1.30mil Au	1.0mil Cu
Mount compound	8075531	4147858
Mold compound	8095181	4147858

Group 2 Device

	Curent BOM	Additional BOM
	MLA	MLA
Wire bond diam/type	1.18mil Au, 1.30mil Au	1.0mil Cu

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

TEXAS INSTRUMENTS — LM5574
SNVS478G – JANUARY 2007 – REVISED APRIL 2025

Changes from Revision F (April 2013) to Revision G (April 2025) — **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document 1
- Deleted SIMPLE SWITCHER® branding from the data sheet 1
- Changed all instances of legacy terminology to controller and peripheral 1
- Added WEBENCH links 1
- Moved the automotive device to a standalone data sheet (SNOSB22) 1
- Updated the data sheet to current TI format 1
- Changed Bias Current (Iin) from 3.7mA to 2mA 6
- Changed Shutdown Current (Iin) from 57uA to 48uA 6
- Changed BOOST UVLO Hysteresis from 0.56V to 0.93V 6
- Changed FB Bias Current from 17nA to 10nA 6

Changes from Revision H (August 2017) to Revision I (April 2025) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document ... 1
- Changed all instances of legacy terminology to controller and peripheral ... 1
- Added WEBENCH links ... 1
- Added TYPE column in the *Pin Configuration and Functions* section ... 3
- Added Charged-device model (CDM) spec to the *ESD Ratings* table ... 5
- Changed Bias Current (Iin) from 3.7mA to 2mA ... 6
- Changed Shutdown Current (Iin) from 57uA to 48uA ... 6
- Changed BOOST UVLO Hysteresis from 0.56V to 0.93V ... 6
- Changed FB Bias Current from 17nA to 10nA ... 6
- Updated the *Application Information* section to comply with current TI format by moving sections into the *Detailed Design Procedure* section ... 17
- Added the *Design Requirements* section ... 18
- Added the *Application Curves* section ... 25
- Added the *Power Supply Recommendations* section ... 25

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LM5574	SNVS478F	**SNVS478G**	http://www.ti.com/product/LM5574
LM25574	SNVS483H	**SNVS483I**	http://www.ti.com/product/LM25574

Qual details are provided in the Qual Data Section.

Reason for Change:

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
MFAB	CUA	USA	South Portland
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

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

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TI Malaysia	MLA	MYS	Kuala Lumpur
TI Melaka	**CU6**	**MYS**	**Melaka**

Sample product shipping label (not actual product label):

Group 1 Product Affected:		
LM25574MTX/NOPB	LM25574MTX/NOPB.A	LM25574MTX/NOPB.B
LM5574MTX/NOPB	LM5574MTX/NOPB.A	LM5574MTX/NOPB.B

Group 2 Product Affected:		
LM25574MT/NOPB	LM25574MT/NOPB.A	LM25574MT/NOPB.B
LM5574MT/NOPB	LM5574MT/NOPB.A	LM5574MT/NOPB.B

Group 1 Qualification Report

Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)

Approve Date 19-March-2025

Product Attributes

Attributes	Qual Device: LM5574QMT/NOPB	Qual Device: LM5574QMTX/NOPB	QBS Process Reference: BQ79600PWRQ1	QBS Package Reference: SN74AXC8T245QPWRQ1	QBS Package Reference: OPA4991QPWRQ1	QBS Product Reference: LM5576QMH/NOPB
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Power Management	Power Management	Power Management	Logic	Signal Chain	Power Management
Wafer Fab Supplier	RFAB	RFAB	RFAB	MH8	RFAB	RFAB
Assembly Site	MLA	MLA	MLA	MLA	MLA	TIEMA
Package Group	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP
Package Designator	PW	PW	PW	PW	PW	PWP
Pin Count	16	16	16	24	14	20

QBS: Qual By Similarity, also known as Generic Data
Qual Device LM5574QMT/NOPB is qualified at MSL1 260C
Qual Device LM5574QMTX/NOPB is qualified at MSL1 260C

Qualification Results

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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LM5574QMT/NOPB	Qual Device: LM5574QMTX/NOPB	QBS Process Reference: BQ79600PWRQ1	QBS Package Reference: SN74AXC8T245QPWRQ1	QBS Package Reference: OPA4991QPWRQ1	QBS Product Reference: LM5576QMH/NOPB
Test Group A - Accelerated Environment Stress Tests													
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/All/0	-	-	3/All/0	1/All/0	3/All/0
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	-	-	3/All/0	-	-	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	110C/85%RH	264 Hours	-	-	-	-	1/77/0	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	3/231/0	-
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	-	3/231/0	3/231/0	1/77/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	1/5/0	-	-	-	1/5/0	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	1/45/0	-	3/135/0	3/135/0	1/45/0	3/135/0
Test Group B - Accelerated Lifetime Simulation Tests													
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	-	-	3/231/0	3/231/0	-	1/77/0
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	300 Hours	-	-	-	-	3/231/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-	-	-
EDR	B3	AEC Q100-005	1	77	NVM Endurance, Data Retention, and Op Life	Per QSS-009-018	1 Step	-	-	3/231/0	-	-	-
Test Group C - Package Assembly Integrity Tests													
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0	-	3/90/0	3/90/0	1/30/0	3/90
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0	-	3/90/0	3/90/0	1/30/0	3/90
SD	C3	JEDEC J-STD-002	1	15	PB Solderability	>95% Lead Coverage	-	-	-	1/15/0	-	-	-
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	-	-	1/15/0	-	-	1/30
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0	-	3/30/0	-	1/10/0	3/30
Test Group D - Die Fabrication Reliability Tests													
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
TDDB	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E - Electrical Verification Tests													
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	2000 Volts	1/3/0	-	-	-	-	1/3/0
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	1/3/0	-	-	-	-	1/3/0
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	1/3/0	-	-	1/6/0	3/18/0	1/3/0
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	1/30/0	1/30/0	2/60/0	3/90/0	3/90/0	3/90

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
Ambient Operating Temperature by Automotive Grade Level:
Grade 0 (or E): -40C to +150C
Grade 1 (or Q): -40C to +125C
Grade 2 (or T): -40C to +105C
Grade 3 (or I) : -40C to +85C
E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):
Room/Hot/Cold : HTOL, ED
Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU
Room : AC/uHAST
Quality and Environmental data is available at TI's external Web site: http://www.ti.com/
TI Qualification ID: R-NPD-2310-145

Group 2 Qualification Report

Approve Date 19-March-2025

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LM5574MT/NOPB	Qual Device: LM25574MT/NOPB	QBS Reference: BQ79600PWRQ1	QBS Reference: SN74AXC8T245QPWRQ1	QBS Reference: OPA4991QPWRQ1	QBS Reference: LM5576QMH/NOPB
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	-	1/77/0	-
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	3/231/0	-
UHAST	A3	Autoclave	130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	-	-	-	2/154/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	1/45/0	-	3/135/0	3/135/0	1/45/0	3/135/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0	3/231/0	-	1/77/0
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-	-	1/30/0
PD	C4	Physical Dimensions	Cpk>1.67	-	3/30/0	-	3/30/0	-	1/10/0	3/30
ESD	E2	ESD CDM	-	1500 Volts	1/3/0	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	1/6/0	3/18/0	1/3/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	1/30/0	1/30/0	2/60/0	3/90/0	3/90/0	3/90/0
FTY	E6	Final Test Yield	-	-	1/1/0	-	-	-	-	3/3/0

QBS: Qual By Similarity, also known as Generic Data
Qual Device LM5574MT/NOPB is qualified at MSL1 260C
Qual Device LM25574MT/NOPB 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-2312-108

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.