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PCN Number:	20260813000.1	PCN Issued	August 13, 2026
Qualification of RFAB as an additional Fab site option, Die Revision, Datasheet update and TI Malaysia as an additional Assembly site options for select devices		Sample request deadline:	October 12, 2026
		Estimated 1st ship date:	November 11, 2026
Sample requests received after** October 12, 2026 will not be supported.**			

Change type(s)
Assembly Site
Assembly Process
Assembly Material
Packing/Shipping/Labeling
Design
Data Sheet/Electrical Specification
Wafer Fab Site
Wafer Fab Material
Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of RFAB as an additional Fab site option & TI Malaysia as additional Assembly site options for the devices listed below.

Current Fab Site			Additional Fab site		
Current Fab Site	Process	Wafer Diameter	Additional Fab site	Process	Wafer Diameter
MAINEFAB	ABCD150	200mm	RFAB	LBC9	300mm

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

Construction differences are as follows:

	Current site		Additional site
Assembly & Test site	TI Melaka	HFTF	TI Malaysia
Wire bond diam/type	1.3mil Au	1.3mil Au	0.8mil Cu
Mount compound	8075531	SID#A-18	4147858
Mold compound	8096859	SID#R-30	4211880
Device marking	YMLL SSFB Pin 1 dimple	YMLL SSFB Pin 1 dimple	TI YM SSFB Pin 1 dot, mold cavity ID
Lead finish	Matte Sn	NiPdAu	NiPdAu

Data sheet update
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.

Changes from Revision X (December 2017) to Revision Y (January 2026) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document 1
- Updated the datasheet title 1
- Changed unit of Switching Frequency from MHz to kHz 4
- Changed $R_{\theta JA}$ from 157.2 to 151.2 (DGK package) 4
- Changed $R_{\theta JC(top)}$ from 49.9 to 45.3 (DGK package) 4
- Changed $R_{\theta JB}$ from 77.1 to 85.6 (DGK package) 4
- Changed ψ_{JT} from 4.7 to 1.5 (DGK package) 4
- Changed ψ_{JB} from 75.8 to 84.2 (DGK package) 4
- Changed maximum I_{EAO} (source) from 140 to 170µA (25°C) 5
- Changed maximum I_{EAO} (source) from 180 to 220µA 5
- Changed minimum I_{EAO} (sink) from -100 to -70µA (25°C) 5
- Changed minimum I_{EAO} (sink) from -85 to -60µA 5

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LM3478	SNVS085X	SNVS085Y	https://www.ti.com/product/LM3478

Qual details are provided in the Qual Data Section.
Test coverage, insertions, conditions will remain consistent with current testing.

Reason for Change:	Supply Continuity
Anticipated impact on Form, Fit, Function, Quality or Reliability:	Review updated data sheets and/or request the Supporting Data Packet (SDP) for more details on the changes. Evaluating samples is encouraged.
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

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

Die Rev:

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

Assembly Site Information

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TIEM	CU6	MYS	Melaka
HFTF	HFT	CHN	Hefei
MLA	**MLA**	**MYS**	**Kuala Lumpur**

Sample product shipping label (not actual product label):

Products Affected:

LM3478MM/NOPB	LM3478MMX/NOPB

Qualification Report
Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)
Approve Date 14-April-2025

Product Attributes

Attributes	Qual Device: LM3478QMMX/NOPB	QBS DGS Package Reference: TLV9032QDGKRQ1	QBS VSSOP Package Reference: SN74LVxxQDGSRQ1	QBS Group B Reference: BQ79600PWRQ1	QBS HTOL Device Reference: LM3481QMMX/NOPB
Automotive Grade Level	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
Product Function	Power Management	Signal Chain	Logic	Power Management	Power Management
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	RFAB
Assembly Site	MLA	MLA	MLA	MLA	HFTFAT
Package Group	VSSOP	VSSOP	VSSOP	TSSOP	VSSOP
Package Designator	DGK	DGK	DGS	PW	DGS
Pin Count	8	8	20	16	10

QBS: Qual By Similarity, also known as Generic Data
Qual Device LM3478QMMX/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: LM3478QMMX/NOPB	QBS DGK Package Reference: TLV9032QDGKRQ1	QBS VSSOP Package Reference: SN74LVxxQDGSRQ1	QBS Group B Reference: BQ79600PWRQ1	QBS HTOL Device Reference: LM3481QMMX/NOPB
Test Group A - Accelerated Environment Stress Tests												
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	1/77/0	3/462/0	3/693/0		
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	QBS		3/231/0		
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	QBS		3/231/0		
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	QBS	3/231/0			
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	3/231/0	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	QBS	3/135/0	3/135/0		
Test Group B - Accelerated Lifetime Simulation Tests												
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	Note A on QBS			3/231/0	1/77/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	QBS			3/2400/0	
EDR	B3	AEC Q100-005	1	77	NVM Endurance, Data Retention, and Op Life	150C	1000 hours	QBS			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	1/30/0	3/90/0			
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0	3/90/0			
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			
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	1/10/0	3/30/0			
Test Group D - Die Fabrication Reliability Tests												
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements				
TDDB	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements				
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements				
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements				
SM	D5	-	-	-	Stress Migration	-	-	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				
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	750 Volts	1/3/0				
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	1/3/0				
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	3/90/0				

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

NOTE A HTOL re-use
LM3478 is a derivative product extension of the LM34xx family.
All critical circuits of LM3478 are covered by LM3481. Operating frequencies are the same and die size is same
LM3478 runs at reduced Voltage of 40V versus 48V on LM3481.
Per AEC-Q100 Table A1.1 LM3478 is less complex than LM3481 and falls within the product family definition of LM34xx.
HTOL from LM3481 will be applied to the
LM3478

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-2402-115

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.

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