12500 TI Boulevard, MS 8640, Dallas, Texas 75243

Notification Number:	20261030002.0	Notification Issued	November 24, 2026
Qualification of New Substrate Core Material for Select Devices			

Change Type(s)	Assembly Material
ZVEI ID	SEM-PA-02

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of a new substrate core material for Select Devices listed in the "Product Affected" Section.

What	Current	New
Substrate Core material	HL832NSF-LC/A	7409HG ZS

The qualification effort is progressing, and we currently expect testing to be completed December 30, 2026. If samples are required, this will be available November 25, 2026. Starting **December 31, 2026**, Texas Instruments will transition to shipping products using the new substrate core material.

Reason for Change:	Continuity of supply Due to an industry-wide shortage of T-Glass fiber, a key raw material used in substrate manufacturing, the POR substrate is currently experiencing significant supply constraints across industry. Based on currently available information, existing supply is expected to be available only through **December 18, 2026**.
Anticipated impact on Form, Fit, Function, Quality or Reliability:	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.
Changes to product identification resulting from this PCN:	None

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

Products Affected:		
AWR2944ABGALTRQ1	AWRL6843DBGANCRQ1	AWR1843ARBGALPQ1
AM2432BSFFHIALXR	AWR2544BGAMQRQ1	DS250DF210ABMT
AWR6843ARBGALPRQ1	AWRL6432BDBGAMFRQ1	IWR2944AQGALT
AWR1843ABSABLRQ1	DS250DF400ABMR	IWR6843AQSABL
IWR1843ABGABL	AWR2E44PBGAMXRQ1	AM2434BSFFHIALXR
AWR6843ABGABLQ1	AWR1443FQIGABLRQ1	AWR1642ABISABLRQ1
IWR1642AQAGABLR	AWR2944ABSALTRQ1	TPS53860CS1ANLR
IWRL6432BDQGAMFR	AWR2F44ABSALLRQ1	AWR2944LBSALTRQ1
AWRL1432BDBGAMFRQ1	AWR2E44EBSAMXRQ1	AM2434BSDGHIALXR
AWR2243APBGABLRQ1	IWR6843ARQGALPR	AWR6243ABGABLRQ1
DS560DF410AMNT	AWR6843AQGABLRQ1	XA2243APBGABL
XA2243ABGABL	IWRL6432BDBAAMF	AM2434BSEFHIALXR
IWR1843ARQGALPR	AWR2943ABSALTRQ1	IWR6843ARBGALP
AWR2944ABSALTQ1	AWR1843ABGABLRQ1	XA1843ABGABL
AWRL6844DBGANCRQ1	AWR6843AQGABLQ1	DS250DF200ABMR
AWR2944LBGALTRQ1	IWR6243ABGABL	AWR2944PBGALTRQ1
IWRL6432BDQGAMF	IWRL1432BDQGAMF	IWR6443AQGABLR
AM2432BSEFHIALXR	AWR2944ABGALTQ1	AWRL6432BDBAAMFQ1
IWR6843AQGABLR	AM2434BSDFHIALXR	AM2432BKFGHIALXR
AWR2E44EBGAMXRQ1	AWR6843ABSABLRQ1	AWR1443FQIGABLQ1
AWR2243ABGABLRQ1	AWR1843ARBSALPRQ1	AWR2E44ABSAMXRQ1
IWR1843AQGABLR	AWR2944ALBGALTRQ1	DS250DF210ABMR
DS250DF400ABMT	IWR6843ABGABLR	AWR2944ALBSALTRQ1
IWR6843AQGABL	AM2432BKEGHIALXR	DS250DF200ABMT
IWR6843ARQGALP	AWR6843ABSABLQ1	AWRL6843DBSANCRQ1
IWR1843AQGABL	IWR2243APBGABL	IWR6443AQGABL
AWRL6432BDBGAMFQ1	IWR1642AQAGABL	TPS53860CM1ANLR
AWR2243APBGABLQ1	IWRL1432BDQGAMFR	AWR6243ABGABLQ1
AWR1843ARBGALPRQ1	AWRL1432BDBAAMFRQ1	AWR1642ABISABLQ1
AWR1843ABGABLQ1	AWR1243FBIGABLRQ1	AWRL1422BMQGAMFRQ1
DS250DF410ABMR	DS560DF410AMNR	IWR1642AQASABL
AM2431BSDGHIALXR	IWR6843ARBSALP	AWR1843ABSABLQ1
IWR6843AQSABLR	AWR6443ABGABLQ1	AWR2943ABGALTRQ1
DS250DF410ABMT	IWR6843ARQSALP	IWR2944AQGALTR
AWRL6844DBSANCRQ1	IWRL1432BDBAAMFR	IWR6843ARBSALPR
AWR6843ABGABLRQ1	AWR1642ABIGABLQ1	AWR2E44ABSAMXQ1
AWR2E44ABGAMXRQ1	AWR2E44ALBGAMXRQ1	AWR6843ARBSALPQ1
AWR1243FVBIGABLRQ1	IWR2243APBGABLR	AWRL1422BDQAAMFRQ1
AWR2944EBGALTRQ1	AWRL1432BBAAMFRQ1	IWR6843ABSABLR
IWR6243ABGABLR	AM2432BSDGHIALXR	AWR2943ABGALTQ1
IWRL6432BDBAAMFR	AWR2243AVBGABLRQ1	IWRL6843DQGANCR
AWR1642ABIGABLRQ1	AWR2944ALBGALTQ1	AWR2544BGAMQQ1
AWR2243ABGABLQ1	AWR1243FBIGABLQ1	IWRL6844DBSANCR
IWR6843ABGABL	AWR2E44LBGAMXRQ1	XI1843AQGABL
IWRL6844DQGANCR	AWR2E44PBSAMXRQ1	AM2431BSDFHIALXR
AWR2944EBSALTRQ1	IWRL1432BDBAAMF	IWR2944ABGALTR

AWR2E44VBSAMXRQ1	AWR6443ABGABLRQ1	AWR2G44ABSALLRQ1
IWR1843ARQGALP	AWR6843ARBGALPQ1	AWR2944PBSALTRQ1
IWR1443FQAGABLR	AWR2E44LBSAMXRQ1	IWR6843ARQSALPR
AWR2E44ABGAMXQ1	AWRL6432BDBAAMFRQ1	

Qualification Plan

Automotive New Product Qualification Summary
(As per AEC-Q100 and JEDEC Guidelines)

Alternate Core for FCCSP Substrates
(Plan Only)

Product Attributes

Attributes	Qual Device: AWR2F44ABSALLRQ1
Automotive Grade Level	Grade 1
Operating Temp Range (C)	-40 to 125
Product Function	Microprocessor
Die Attributes	
Wafer Fab Supplier	UMCI
Wafer Process	1118C014.M7
Die Size (L,W) (um)	8516 x 8208
Package Attributes	
Assembly Site	ANA
Package Group	FCCSP
Package Designator	ALL
Package Size (mm)	14 x 14
Body Thickness (mm)	1.09
Pin Count	311
Lead Finish	SNAGCU
Lead Pitch(mm)	0.65
Mold Compound Supplier	SUMITOMO
Mold Compound Supplier Number	EME-G355-S

QBS: Qual By Similarity, also known as Generic Data. All other affected devices in the product Affected section are QBS to AWR2F44ABSALLRQ1.
Qual Device AWR2F44ABSALLRQ1 is qualified at MSL3 260C

Qualification Plan

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: AWR2F44ABSALLRQ1
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	-	
HAST	A2	JEDEC JESD22-A110	3	77	Temperature Humidity Bias	85C/85%RH	1000 Hours	
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	110C/85%RH	264 Hours	
TC	A4	JEDEC JESD22-A104 and Appendix 6	3	77	Temperature Cycle	-55C/150C	1000 Cycles	
Test Group E - Electrical Verification Tests								
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	500 Volts	
ESD	E3	AEC Q100-011	1	3	ESD CDM	Corner pins	750 Volts	
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	
Additional Tests								
BLR	T1	-	1	48	Board Level Reliability - Temp Cycle	-40/125C	1000 Cycles	

Preconditioning performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, and HTSL, as applicable
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 : ED
Room/Hot : THB / HAST, TC / PTC, HTSL, ESD
Room : AC/uHAST
Quality and Environmental data is available at TI's external Web site: http://www.ti.com/
TI Qualification ID: R-CHG-2603-034

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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