12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20240830001.2
Qualification of TI Mexico as an additional assembly/test site for select devices
Change Notification / Sample Request

Date: August 30, 2024
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 **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **30 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.

Sincerely,

Change Management Team
SC Business Services

20240830001.2
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
LM5012QDDARQ1	NULL
LM5013QDDARQ1	NULL
LMR23610AQDDAQ1	NULL
LMR23610AQDDARQ1	NULL
LMR23625CFQDDAQ1	NULL
LMR23625CFQDDARQ1	NULL
LMR23625CQDDAQ1	NULL
LMR23625CQDDARQ1	NULL
LMR23630AFQDDAQ1	NULL
LMR23630AFQDDARQ1	NULL
LMR23630AQDDAQ1	NULL
LMR23630AQDDARQ1	NULL
LMR38010FSQDDARQ1	NULL
LMR38010SQDDARQ1	NULL
LMR38020FSQDDARQ1	NULL
LMR38020SQDDARQ1	NULL
TLIN10283DDARQ1	NULL
TLIN10285DDARQ1	NULL
TPS54340BQDDAQ1	NULL
TPS54340BQDDARQ1	NULL
TPS54340QDDAQ1	NULL
TPS54340QDDARQ1	NULL
TPS54360BQDDAQ1	NULL
TPS54360BQDDARQ1	NULL
TPS54360QDDARQ1	NULL
TPS54540BQDDAQ1	NULL
TPS54540BQDDARQ1	NULL
TPS54540QDDAQ1	NULL
TPS54540QDDARQ1	NULL
TPS54560BQDDAQ1	NULL
TPS54560BQDDARQ1	NULL
TPS54560QDDAQ1	NULL
TPS54560QDDARQ1	NULL
TPS7B4253QDDARQ1	NULL
TPS7B4254QDDARQ1	NULL
TPS7B8601QDDARQ1	NULL
TPS7B8633QDDARQ1	NULL
TPS7B8650QDDARQ1	NULL
TPS7B8733QDDARQ1	NULL
TPS7B8750QDDARQ1	NULL

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

PCN Number:	PCN#20240830001.2	**PCN Date:**	August 30, 2024
Title:	Qualification of TI Mexico as an additional assembly/Test site for select devices		
Customer Contact:	Change Management Team	**Dept:**	Quality Services
Proposed 1st Ship Date:	February 26, 2025	**Sample requests accepted until:**	September 29, 2024*

***Sample requests received after September 29, 2024 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 Incorporated is announcing the qualification of TI Mexico as an alternate Assembly/Test site for the list of devices below. Construction differences are as follows:

	ASESH	**TI Mexico**
Bond Wire Composition, diameter **	Au, 2.0 mil	**Cu, 2.0 mil**
Mount Compound	SID#EY1000063 or SID#EY1000102	**4147858 or 4224264**
Mold Compound	SID#EN2000509 or SID#EN20000519	**4211880**

** - Applies to TPS54* devices only

Also, there will be an ePOD update with the TI Mexico version where the exposed pad will be slightly different. Since we are moving from 0008E to 0008B, there is no requirement for customer to redesign their PCB footprints. See below:

Exposed pad Dimensions	DDA0008E: - X: 1.65-2.40 (nominal 2.025) - Y: 2.65-3.10 (nominal 2.875)	DDA0008B (center pad size): - X: 2.11-2.71 (nominal 2.41) - Y: 2.8-3.4 (nominal 3.1)

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ

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:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASESH	ASH	CHN	Shanghai
TI Mexico	**MEX**	**MEX**	**Aguascalientes**

Sample product shipping label (not actual product label)

Product Affected:

LMR23610AQDDAQ1	LMR38010SQDDARQ1	LM5012QDDARQ1	TPS54560QDDARQ1
LMR23610AQDDARQ1	LMR38020FSQDDARQ1	LM5013QDDARQ1	TPS54340BQDDARQ1
LMR23625CFQDDAQ1	LMR38020SQDDARQ1	LMR23625CQDDARQ1	TPS54360BQDDARQ1
LMR23625CFQDDARQ1	TPS7B8601QDDARQ1	TPS54340BQDDAQ1	TPS54360BQDDARWB
LMR23625CQDDAQ1	TPS7B8633QDDARQ1	TPS54340QDDARQ1	TPS54540BQDDARQ1
LMR23630AFQDDAQ1	TPS7B8650QDDARQ1	TPS54360BQDDAQ1	TPS54560BQDDARQ1
LMR23630AFQDDARQ1	TPS7B8733QDDARQ1	TPS54360BQDDAWB	TPS54340QDDAQ1
LMR23630AQDDAQ1	TPS7B8750QDDARQ1	TPS54360QDDARQ1	TPS54360QDDAQ1
LMR23630AQDDARQ1	TPS7B4254QDDARQ1	TPS54540BQDDAQ1	TPS54540QDDAQ1
TPS7B4253QDDARQ1	TLIN10283DDARQ1	TPS54540QDDARQ1	TPS54560QDDAQ1
LMR38010FSQDDARQ1	TLIN10285DDARQ1	TPS54560BQDDAQ1	

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

Approve Date 25-July-2024

Product Attributes

Attributes	Qual Device: LMR23630AFQDDARQ1	Qual Device: TLIN10285DDARQ1	Qual Device: TPS54360BQDDARQ1	QBS Package Reference: TPS7B8650DQDDARQ1	QBS Package, Process Reference: LM5169EQDDARQ1	QBS Package, Process Reference: UCC27301AQDDARQ1
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	Interface	Power Management	Power Management	Power Management	Power Management
Wafer Fab Supplier	MIHB	RFAB	UMC-F8AB	RFAB	RFAB	AIZU
Assembly Site	FMX	FMX	FMX	FMX	FMX	FMX
Package Group	SOIC	SOIC	SOIC	SOIC	SOIC	SOIC
Package Designator	DDA	DDA	DDA	DDA	DDA	DDA
Pin Count	8	8	8	8	8	8

- QBS: Qual By Similarity
- Qual Device LMR23630AFQDDARQ1 is qualified at MSL2 260C
- Qual Device TLIN10285DDARQ1 is qualified at MSL2 260C
- Qual Device TPS54360BQDDARQ1 is qualified at MSL2 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: LMR23630AFQDDARQ1	Qual Device: TLIN10285DDARQ1	Qual Device: TPS54360BQDDARQ1	QBS Package Reference: TPS7B8650DQDDARQ1	QBS Package Reference: LM5169EQDDARQ1	QBS Package, Process Reference: UCC27301AQDDARQ1
Test Group A - Accelerated Environment Stress Tests													
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	3/Pass Note 1	Note 1	3/Pass	3/Pass Note 3	3/Pass Note 3	3/Pass Note 2
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	110C/85%RH	264 Hours	-	-	-	-	3/231/0 Note 3	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0 Note 1	Note 1	Note 2	3/231/0 Note 3	-	3/231/0 Note 2

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LMR23630AFQDDARQ1	Qual Device: TLIN10285DDARQ1	Qual Device: TPS54360BQDDARQ1	QBS Package Reference: TPS7B8650DQDDARQ1	QBS Package Reference: LM5169FQDDARQ1	QBS Package, Process Reference: UCC27301AQDDARQ1
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	-	-	Note 2	-	-	3/231/0 Note 2
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	110C/85%RH	264 Hours	-	-	-	-	3/231/0 Note 3	-
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	3/231/0 Note 1	Note 1	-	3/231/0 Note 3	-	-
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0 Note 1	Note 1	3/231/0	3/231/0 Note 3	3/231/0 Note 3	3/231/0 Note 2
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	3/15/0 Note 1	Note 1	3/15/0	3/15/0 Note 3	3/15/0 Note 3	3/15/0 Note 2
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	3/135/0 Note 1	Note 1	Note 2	3/135/0 Note 3	-	3/231/0 Note 2
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	-	-	-	-	3/135/0 Note 3	-
Test Group B - Accelerated Lifetime Simulation Tests													
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	150C	300 Hours	Note 4	Note 4	Note 4	-	1/77/0	3/231/0 Note 4
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	150C	24 Hours	Note 4	Note 4	Note 4	-	-	3/2400/0 Note 4
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	3/90/0	3/90/0	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	3/90/0	3/90/0	3/90/0	3/90/0	3/90/0	3/90/0
SD	C3	JEDEC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	-	1/15/0	-	-	1/15/0	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0	3/30/0	3/30/0	3/30/0	3/30/0	3/30/0
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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LMR23630AFQDDARQ1	Qual Device: TLIN10285DDARQ1	Qual Device: TPS54360BQDDARQ1	QBS Package Reference: TPS7B8650DQDDARQ1	QBS Package Reference: LM5169FQDDARQ1	QBS Pa Process R UCC27301A
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 P Technology Requiremen
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 P Technology Requiremen
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 P Technology Requiremen
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 P Technology Requiremen
Test Group E - Electrical Verification Tests													
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	4000 Volts	Note 5	Note 5	Note 5			
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	1500 Volts	Note 5	Note 5	Note 5			
LU	E4	AEC Q100-004	1	6	Latch-Up Per AEC Q100-004	-	-	Note 5	Note 5	Note 5			
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	1/30/0 Note 6	-	1/30/0 Note 6	-	-	-

- 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

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-CHG-2303-108

- AEC-Q100 A1.5 allows for the selection of worst-case test vehicles to cover all the possible permutations for potential risks/failure mechanisms.
- The Assembly site package is qualified with Test Group A - Accelerated Environment Stress Tests and Package QBS devices have the same package attributes.
- Note 1: LMR23630AFQDDARQ1 is a Q006 METDCU bond pad Package Qual. TLIN10285DDARQ1 and all METDCU devices in PCN QBS to this qual.
- Note 2: UCC27301AQDDARQ1 is a Q006 BOAC bond pad Package Qual. TPS54360BQDDARQ1 and all BOAC devices in PCN QBS to this qual.
- Note 3: TPS7B8650DQDDARQ1 and LM5169FQDDARQ1 are Q006 Al pad bond pad Package Quals. All Al pad devices in PCN QBS to these quals.
- Note 4: UCC27301AQDDARQ1 HTOL/ELFR generic data covers this Assembly site. Wafer Fab Supplier and Process were qualified with HTOL/ELFR in original product qualifications.
- Note 5: HBM, CDM, LU are Not Applicable for Assembly Site Transfer or Assembly changes per AEC-Q100, Rev J Table 3.
- Note 6: 1 lot ED is allowed per AEC-Q100: A1.5.1 Multiple Sites - When the specific product or process attribute to be qualified or requalified will affect more than one wafer fab site or assembly site, a minimum of one lot of testing per affected site is required.

TI Information
Selective Disclosure

Automotive Qualification Summary
(As per AEC and JEDEC Guidelines)

Q006 SOIC at FMX
Approve Date 25-July-2024

Attributes	Qual Device: LMR23630AFQDDARQ1	QBS Package Reference: TPS7B8650DQDDARQ1	QBS Package, Process Reference: LM5169FQDDARQ1	QBS Package, Process Reference: UCC27301AQDDARQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Power Management	Power Management	Power Management	Power Management
Wafer Fab Supplier	MH8	RFAB	RFAB	AIZU
Assembly Site	FMX	FMX	FMX	FMX
Package Group	SOIC	SOIC	SOIC	SOIC
Package Designator	DDA	DDA	DDA	DDA
Pin Count	8	8	8	8

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: LMR23630AFQDDARQ1	QBS Reference: TPS7B8650DQDDARQ1	QBS Reference: LM5169FQDDARQ1	QBS Reference: UCC27301AQDDARQ1
Test Group A - Accelerated Environment Stress Tests											

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LMR23630AFQDDARQ1	QBS Reference: TPS7B8650DQDDARQ1	QBS Reference: LM5169FQDDARQ1	QBS Reference: UCC27301AQDDARQ1
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	3/0/0	3/0/0	3/0/0	3/0/0
PC	A1.1	-	3	22	SAM Precon Pre	Review for delamination	-	3/66/0	3/66/0	3/66/0	3/66/0
PC	A1.2	-	3	22	SAM Precon Post	Review for delamination	-	3/66/0	3/66/0	3/66/0	3/66/0
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	110C/85%RH	264 Hours	-	-	3/231/0	-
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0	3/231/0	-	3/231/0
HAST	A2.1.2	-	3	1	Cross Section, post bHAST, 1X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
HAST	A2.1.4	-	3	3	Bond Pull over Stitch, post bHAST, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	110C/85%RH	528 Hours	-	-	3/210/0	-
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	3/210/0	3/210/0	-	3/210/0
HAST	A2.2.1	-	3	22	SAM Analysis, post bHAST 2X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0	3/66/0
HAST	A2.2.2	-	3	1	Cross Section, post bHAST, 2X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
HAST	A2.2.3	-	3	3	Wire Bond Shear, post bHAST, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LMR23630AFQDDARQ1	QBS Reference: TPS7B8650DQDDARQ1	QBS Reference: LM5169FQDDARQ1	QBS Reference: UCC27301AQDDARQ1
HAST	A2.2.4	-	3	3	Bond Pull over Stitch, post bHAST, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
HAST	A2.2.5	-	3	3	Bond Pull over Ball, post bHAST, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
TC	A4.1.1	-	3	22	SAM Analysis, post TC 1X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0	3/66/0
TC	A4.1.2	-	3	1	Cross Section, post TC, 1X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150C	1000 Cycles	3/210/0	3/210/0	3/210/0	3/210/0
TC	A4.2.1	-	3	22	SAM Analysis, post TC, 2X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0	3/66/0
TC	A4.2.2	-	3	1	Cross Section, post TC, 2X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
TC	A4.2.4	-	3	3	Bond Pull over Stitch, post TC, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: LMR23630AFQDDARQ1	QBS Reference: TPS7B8650DQDDARQ1	QBS Reference: LM5169FQDDARQ1	QBS Reference: UCC27301AQDDARQ1
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	3/9/0	3/9/0	3/9/0	3/9/0
PTC	A5.1	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	-	1/45/0	-	-
PTC	A5.2	JEDEC JESD22-A105	1	45	PTC	-40/125C	2000 Cycles	-	1/45/0	-	-
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	150C	1000 Hours	3/135/0	3/135/0	-	3/135/0
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	175C	500 Hours	-	-	3/135/0	-
HTSL	A6.1.1	-	3	1	Cross Section, post HTSL, 1X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
HTSL	A6.2	JEDEC JESD22-A103	3	44	High Temperature Storage Life	150C	2000 Hours	3/132/0	3/132/0	-	3/132/0
HTSL	A6.2	JEDEC JESD22-A103	3	44	High Temperature Storage Life	175C	1000 Hours	-	-	3/132/0	-
HTSL	A6.2.1	-	3	1	Cross Section, post HTSL, 2X	Post stress cross section	Completed	3/3/0	3/3/0	3/3/0	3/3/0
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	3/90/0
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	3/90/0

- QBS: Qual By Similarity
- Qual Device LMR23630AFQDDARQ1 is qualified at MSL2 260C
- Qual Device TLIN10285DDARQ1 is qualified at MSL2 260C
- Qual Device TPS54360BQDDARQ1 is qualified at MSL2 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

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-CHG-2303-108

ZVEI IDs: SEM-PA-07, SEM-PA-11, SEM-PA-18, SEM-PS-04, SEM-TF-01, SEM-PA-01, SEM-PA-08

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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