12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20260414000.1
Qualification of MIHO using qualified Process Technology and additional Assembly site for select devices
Change Notification / Sample Request

Date: April 14, 2026
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.

Sincerely,

Change Management Team
SC Business Services

20260414000.1
Change Notification / Sample Request
Attachments

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
TPD1E05U06DPYR	NULL
ESD601DPYR	NULL
ESD501DPYR	NULL
ESD321DPYR	NULL
TPD1E05U06DPYT	NULL

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

PCN Number:	20260414000.1	PCN Date:	April 14, 2026
Title:	Qualification of MIHO using qualified Process Technology and additional Assembly site for select devices		
Customer Contact:	Change Management team	**Dept:**	Quality Services
Proposed 1st Ship Date:	July 13, 2026	**Sample requests accepted until:**	June 13, 2026

***Sample requests received after** June 13, 2026 **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 addition of MIHO using the VDIODE qualified process technology and Clark as 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**
CFAB	VDIODE	200 mm	MIHO	VDIODE	200 mm

Construction differences are as follows:

	Current	Additional
Assembly Site	**CARZAT**	**CLARK**
Lead Finish	NiPdAuAg	NiPdAu
Mount compound	SID# 438933	4207123
Bond Wire	Au 0.8mil	Cu 0.8mil
Marking	Pin 1 Stripe	Pin 1 Dot

Qual details are provided in the Qual Data Section.

Reason for Change:

Continuity Supply

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

Review the updated Standard Data Packet for more details on the changes.

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
CFAB	CU3	CHN	CHENGDU
MIHO	**MH8**	**JPN**	**Ibaraki**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
CARZ	CSZ	CHN	Jiangsu
Clark-AT	**QAB**	**PHL**	**Pampanga**

Sample product shipping label (not actual product label):

Product Affected: Fab & ASSEMBLY

ESD321DPYR	ESD501DPYR	ESD601DPYR

Product Affected: Assembly Only

TPD1E05U06DPYR	TPD1E05U06DPYT

Qualification Data

Automotive New Product Qualification Summary
(As per AEC-Q101 and JEDEC Guidelines)

2DPY Offload to Clark
Approve Date 23-February-2026

Product Attributes

Attributes	Qual Device: ESD601DPYRQ1	QBS Process Reference: ESD2CAN24DBZRQ1	QBS Process Reference: TSM24CADBZRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 0
Operating Temp Range (C)	-40 to 125	-40 to 125	-55 to 150
Product Function	Interface	Interface	Interface
Wafer Fab Supplier	CFAB	CFAB	CFAB
Assembly Site	CLARK-AT	PHI	PHI
Package Group	UXQFN	SOT	SOT
Package Designator	DPY	DBZ	DBZ
Pin Count	2	3	3

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device ESD601DPYRQ1 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: ESD601DPYRQ1	QBS Process Reference: ESD2CAN24DBZRQ1	QBS Process Reference: TSM24CADBZRQ1
Test Group A - Accelerated Environment Stress Tests										
PC	A1	JEDEC J-STD-020 JESD22-A113	-	0	Preconditioning	MSL1 260C	1 Step	3/0/0	3/0/0	3/3/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0	3/231/0	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	Poststress cross section	Completed	3/3/0	3/3/0	3/3/0
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Poststress	-	3/9/0	3/9/0	3/9/0
HAST	A2.1.4	-	3	3	Bond Pull over Stitch, post bHAST, 1X	Poststress	-	3/9/0	3/9/0	3/9/0
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Poststress	-	3/9/0	3/9/0	3/9/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	3/231/0	3/231/0	3/231/0
HAST	A2.2.1	-	3	22	SAM Analysis, post bHAST 2X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0
HAST	A2.2.2	-	3	1	Cross Section, post bHAST, 2X	Poststress cross section	Completed	3/3/0	3/3/0	3/3/0
HAST	A2.2.3	-	3	3	Wire Bond Shear, post bHAST, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
HAST	A2.2.4	-	3	3	Bond Pull over Stitch, post bHAST, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
HAST	A2.2.5	-	3	3	Bond Pull over Ball, post bHAST, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
AC/UHAST	A3	JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	3/231/0	3/231/0	3/231/0
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
TC	A4.1.1	-	3	22	SAM Analysis, post TC 1X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0
TC	A4.1.2	-	3	1	Cross Section, post TC, 1X	Poststress cross section	Completed	3/3/0	3/3/0	3/3/0
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Poststress	-	3/9/0	3/9/0	3/9/0
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Poststress	-	3/9/0	3/9/0	3/9/0
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Poststress	-	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	3/231/0	3/231/0	3/231/0
TC	A4.2.1	-	3	22	SAM Analysis, post TC, 2X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0
TC	A4.2.2	-	3	1	Cross Section, post TC, 2X	Poststress cross section	Completed	3/3/0	3/3/0	3/3/0
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
TC	A4.2.4	-	3	3	Bond Pull over Stitch, post TC, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Poststress	-	3/9/0	3/9/0	3/9/0
Test Group B - Accelerated Lifetime Simulation Tests										
HTRB	B1.1	MIL-STD-750-1	3	77	High Temperature Reverse Bias	125C	1000 Hours	-	3/231/0	-
HTRB	B1.1	MIL-STD-750-1	3	77	High Temperature Reverse Bias	150C	1000 Hours	-	-	1/77/0
HTRB	B1.2	MIL-STD-750-1	3	77	High Temperature Reverse Bias	125C	2000 Hours	-	3/231/0	-

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: ESD601DPYRQ1	QBS Process Reference: ESD2CAN24DBZRQ1	QBS Process Reference: TSM24CADBZRQ1
HTRB	B12	MIL-STD-750-1	3	77	High Temperature Reverse Bias	150C	2000 Hours	-	-	1/77/0
Test Group C - Package Assembly Integrity Tests										
DPA	C2	JESD22-B100	-	30	Physical Dimensions	Cpk>1.67	1 Step	3/90/0	3/90/0	1/30/0
WBP	C3	MIL-STD-750-2	-	10	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	1 Step	3/30/0	3/30/0	1/10/0
WBS	C4	AEC-Q101-003	-	10	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	1 Step	3/30/0	3/30/0	1/10/0
DS	C5	MIL-STD-750-2	-	5	Die Shear	MIL-STD-750-2 Method 2017	1 Step	3/15/0	3/15/0	1/5/0
RSH	C8	JESD22-B107	-	30	Solder Heat	260C, 10 seconds	1 Step	1/30/0	1/30/0	1/30/0
SD	C10	JEDEC J-STD-002	-	15	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	1 Step	1/15/0	1/10/0	-
Test Group D - Die Fabrication Reliability Tests										
Test Group E - Electrical Verification Tests										
EV	E0	JESD22-B101	3	1000	Visual/Mechanical	Per JESD22 B-101	1 Step	3/3000/0	3/3000/0	-
ESD	E3	AEC Q101-001	3	10	ESD HBM	Room Temp	2000 Volts	1/10/0	1/80/0	1/10/0
ESD	E4	AEC Q101-005	3	10	ESD CDM	Room Temp	750 Volts	1/10/0	-	1/10/0
Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device	QBS Reference	QBS Reference

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, HTSL, and IOL, as applicable
- Passing results reflect shift analysis per Q101 requirements

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 : HTRB, 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-2409-083

Automotive Qualification Summary
(As per AEC and JEDEC Guidelines)

Q006 DPY at CLARK
Approve Date 23-FEBRUARY -2026

Attributes	Qual Device: ESD601DPYRQ1	QBS Process Reference: ESD2CAN24DBZRQ1	QBS Process Reference: TSM24CADBZRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 0
Operating Temp Range (C)	-40 to 125	-40 to 125	-55 to 150
Product Function	Interface	Interface	Interface
Wafer Fab Supplier	CFAB	CFAB	CFAB
Assembly Site	CLARK-AT	PHI	PHI
Package Group	UXQFN	SOT	SOT
Package Designator	DPY	DBZ	DBZ
Pin Count	2	3	3

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: ESD601DPYRQ1	QBS Reference: ESD2CAN24DBZRQ1	QBS Reference: TSM24CADBZRQ1
Test Group A - Accelerated Environment Stress Tests										
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/0/0	3/0/0	3/3/0
PC	A1.1	-	3	22	SAM Precon Pre	Review for delamination	-	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
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
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Post stress	-	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
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Post stress	-	3/9/0	3/9/0	3/9/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	3/231/0	3/231/0	3/231/0
HAST	A2.2.1	-	3	22	SAM Analysis, post bHAST 2X	Review for delamination	Completed	3/66/0	3/66/0	3/66/0
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
HAST	A2.2.3	-	3	3	Wire Bond Shear, post bHAST, 2X	Post stress	-	3/9/0	3/9/0	3/9/0
HAST	A2.2.4	-	3	3	Bond Pull over Stitch, post bHAST, 2X	Post stress	-	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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: ESD601DPYRQ1	QBS Reference: ESD2CAN24DBZRQ1	QBS Reference: TSM24CADBZRQ1
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	1000 Cycles	3/231/0	-	3/231/0
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
TC	A4.1.1	-	3	22	SAM Analysis, post TC 1X	Review for delamination	Completed	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	-	-
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Post stress	-	3/9/0	-	-
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Post stress	-	3/9/0	-	-
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Post stress	-	3/9/0	-	-
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150C	1000 Cycles	-	3/231/0	-
TC	A4.2.1	-	3	22	SAM Analysis, post TC, 2X	Review for delamination	Completed	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	-
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Post stress	-	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	-
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	3/9/0	3/9/0	-
Test Group C - Package Assembly Integrity Tests										

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device ESD601DPYRQ1 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

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-2409-083

Automotive New Product Qualification Summary
(As per AEC-Q101 and JEDEC Guidelines)

Approve Date 23-FEBRUARY -2025

Update Date 29-September -2025

Product Attributes

Attributes	Qual Device: ESD2CAN24DBZRQ1	Qual Device: TSM24ADBZRQ1
Automotive Grade Level	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125
Product Function	Interface	Interface
Wafer Fab Supplier	MH8	MH8
Assembly Site	PHI	PHI
Package Group	SOT	SOT
Package Designator	DBZ	DBZ
Pin Count	3	3

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device ESD2CAN24DBZRQ1 and TSM24ADBZRQ1 are 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: ESD2CAN24DBZRQ1	Qual Device: TSM24ADBZRQ1
Test Group A - Accelerated Environment Stress Tests									
PC	A1	JEDEC J-STD-020 JESD22-A113	-	0	Preconditioning	MSL1 260C	1 Step	2/0/0	1/0/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	2/154/0	1/77/0
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	2/154/0	1/77/0
HAST	A2.1.2	-	3	1	Cross Section, post bHAST, 1X	Post stress cross section	Completed	2/2/0	1/1/0
HAST	A2.1.3	-	3	3	Wire Bond Shear, post bHAST, 1X	Post stress	-	2/6/0	1/3/0
HAST	A2.1.4	-	3	3	Bond Pull over Stitch, post bHAST, 1X	Post stress	-	2/6/0	1/3/0
HAST	A2.1.5	-	3	3	Bond Pull over Ball, post bHAST, 1X	Post stress	-	2/6/0	1/3/0
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85%RH	192 Hours	2/154/0	1/77/0
AC/UHAST	A3	JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	2/154/0	1/77/0
TCHT	A4.1	JEDEC JESD22-A104 and Appendix 6	3	77	Temperature Cycle	-65C/150C	1000 Cycles	2/154/0	1/77/0
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	2/154/0	1/77/0
TC	A4.1.1	-	3	22	SAM Analysis, post TC 1X	Review for delamination	Completed	2/44/0	1/22/0
TC	A4.1.2	-	3	1	Cross Section, post TC, 1X	Post stress cross section	Completed	1/1/0	1/1/0
TC	A4.1.3	-	3	3	Wire Bond Shear, post TC, 1X	Post stress	-	1/3/0	1/3/0
TC	A4.1.4	-	3	3	Bond Pull over Stitch, post TC, 1X	Post stress	-	2/6/0	1/3/0
TC	A4.1.5	-	3	3	Bond Pull over Ball, post TC, 1X	Post stress	-	2/6/0	1/3/0
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150C	1000 Cycles	2/154/0	1/77/0
TC	A4.2.1	-	3	22	SAM Analysis, post TC, 2X	Review for delamination	Completed	2/44/0	1/22/0

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: ESD2CAN24DBZRQ1	Qual Device: TSM24ADBZRQ1
TC	A4.2.2	-	3	1	Cross Section, post TC, 2X	Post stress cross section	Completed	1/1/0	1/1/0
TC	A4.2.3	-	3	3	Wire Bond Shear, post TC, 2X	Post stress	-	2/6/0	1/3/0
TC	A4.2.4	-	3	3	Bond Pull over Stitch, post TC, 2X	Post stress	-	2/6/0	1/3/0
TC	A4.2.5	-	3	3	Bond Pull over Ball, post TC, 2X	Post stress	-	2/6/0	1/3/0
Test Group B - Accelerated Lifetime Simulation Tests									
HTRB	B1.1	MIL-STD-750-1	3	77	High Temperature Reverse Bias	125C	1000 Hours	2/154/0	1/77/0
HTRB	B1.2	MIL-STD-750-1	3	77	High Temperature Reverse Bias	125C	2000 Hours	2/154/0	1/77/0
Test Group C - Package Assembly Integrity Tests									
DPA	C2	JESD22-B100	-	30	Physical Dimensions	Cpk>1.67	1 Step	2/60/0	1/30/0
WBP	C3	MIL-STD-750-2	-	10	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	1 Step	1/10/0	1/10/0
WBS	C4	AEC-Q101-003	-	10	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	1 Step	2/20/0	1/10/0
DS	C5	MIL-STD-750-2	-	5	Die Shear	MIL-STD-750-2 Method 2017	1 Step	2/10/0	1/5/0
RSH	C8	JESD22-B107	-	30	Solder Heat	260C, 10 seconds	1 Step	1/30/0	1/30/0
SD	C10	JEDEC J-STD-002	-	15	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	1 Step	1/10/0	1/10/0
SD	C10	JEDEC J-STD-002	-	15	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	1 Step	1/15/0	1/15/0
Test Group D - Die Fabrication Reliability Tests									
Test Group E - Electrical Verification Tests									
EV	E0	JESD22-B101	3	1000	Visual/Mechanical	Per JESD22 B-101	1 Step	1/1000/0	1/1000/0
ESD	E3	AEC Q101-001	3	10	ESD HBM	Room Temp	2000 Volts	1/10/0	1/10/0
ESD	E4	AEC Q101-005	3	10	ESD CDM	Room Temp	750 Volts	1/10/0	1/10/0
Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device	Qual Device

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, HTSL, and IOL, as applicable
- Passing results reflect shift analysis per Q101 requirements

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 : HTRB, 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-2405-014 and R-CHG-2405-054

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 Change Management team or your local Field Sales Representative.

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