



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20230802001.1
Qualify New Assembly Material set for Selected Device(s)
Change Notification / Sample Request

Date: August 07, 2023
To: TOKYO ELECTRON DEVICE (DSTR) 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

20230802001.1
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
BUF16821AIPWPR	null
TPS54313PWP	null
TPS61030PWPR	null
TPS76733QPWP	null
TPS76801QPWPRG4	null
TPA3001D1PWP	null
TPS40021PWPR	null
TPS54312PWP	null
TPS54316PWP	null
TPS54372PWP	null
TPS54372PWPR	null
TPS54610PWP	null
TPS70202PWP	null
TPS70245PWP	null
TPS70245PWPR	null
TPS70251PWPR	null
TPS70445PWP	null
TPS76801QPWP	null
TLC5941PWPR	null
TPS23750PWPR	null
TPS70345PWPR	null
TPS70358PWPR	null
TPS77801PWP	null
TPS40055PWPR	null
TPS54310PWP	null
TPS54310PWPR	null
TPS54350PWPR	null
TPS54380PWPR	null
TPS54550PWPR	null
TPS54610PWPR	null
TPS54680PWPR	null
TPS51116MPWPEP	null
TPS54110PWP	null
TPS54350PWP	null
TPS54373PWP	null
TPS54380PWP	null
TPS54550PWP	null
TPS54680PWP	null
TPS54880PWP	null
TPS54910PWP	null
TPS76701QPWP	null
TPS76715QPWP	null
TPS76725QPWPR	null
TPS77815PWPR	null
TPS77833PWPR	null
TPA3140D2PWPR	null
TPA3144D2PWPR	null
BUF12800AIPWPR	null
TPS40021PWP	null
TPS54616PWP	null
TPS65105PWPR	null
TPS40057PWP	null
TPS40057PWPR	null
TPS54312PWPR	null
TPS65150PWPR	null
TPS76733QPWPR	null
TPS5210PWPR	null
TPS65150PWP	null
TPS54314PWPR	null
TPS54316PWPR	null
TPS54357PWPR	null

TPS54616PWPR	null
TPS70351PWP	null
TPS54315PWP	null
TPS70458PWP	null
TPS40071PWPRG4	null
TPS40077PWPR	null
TPS54313PWPR	null
TPS54314PWP	null
TPS40060PWP	null
TPS40060PWPR	null
TPS54612PWP	null
TPS54614PWP	null
TPS54615PWP	null
TPS70102PWPR	null
TPS76718QPWP	null
TPS76801QPWPR	null
TPS54383PWP	null
TPS54383PWPR	null
TPS70151PWP	null
TPS77801PWPR	null
TPS40056PWP	null
TPS40056PWPR	null
TPS54612PWPR	null
TPS70402PWP	null
TPS70402PWPR	null
TPS70148PWPR	null
TPS77633PWP	null
TPS54610PWPRG4	null
TPS54880PWPR	null
BUF07704AIPWPR	null
BUF11704AIPWPR	null
TPS40055PWP	null
TPA3137D2PWPR	null
TPS65100PWP	null
TPS54283PWPR	null
TPS54286PWPR	null
TPS65140PWPR	null
TLC5940PWPR	null
TPA3136AD2PWPR	null

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

PCN Number:	20230802001.1		PCN Date:	August 07, 2023	
Title:	Qualify New Assembly Material set for Selected Device(s)				
Customer Contact:	Change Management team	Dept:	Quality Services		
Proposed 1st Ship Date:	Nov 07, 2023	Sample requests accepted until:	Sept 07, 2023*		
*Sample requests received after Sept 07, 2023 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 Materials
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of new assembly material for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:					
Group 1 device:					
		Current	Proposed		
	Mold Compound	KMC 3580HB	EME G700LB		
Group 2 device:					
		Current	Proposed		
	Mount Compound	QMI 529HT, EN-4085S2K3	FS849-TI		
Group 3 device:					
		Current	Proposed		
	Mount Compound	QMI 529HT, EN-4085S2K3	FS849-TI		
	Mold Compound	KMC 3580HB	EME G700LB		
Reason for Change:					
Continuity of supply.					
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:					
None					
Product Affected:					

Group 1 Device:

BUF08821AIPWPR	TPS54610MPWPREP	TPS77515MPWPREP	V62/03635-03XE
BUF08821BIPWPR	TPS54610MPWPREG4	TPS77518MPWPREP	V62/03635-04XE
BUF08832AIPWPR	TPS54615MPWPREP	TPS77525MPWPREP	V62/03635-05XE
BUF16821AIPWPR	TPS54680MPWPEP	TPS77533MPWPREP	V62/03635-11XE
BUF16821BIPWPR	TPS54680MPWPREP	TPS77601QPWPREP	V62/03636-06XE
DRV10975FFPWP	TPS54680QPWPREP	TPS77615QPWPREP	V62/03636-08XE
DRV10975FFPWPR	TPS70345MPWPREP	TPS77618QPWPREP	V62/03636-09XE
DRV10975GFPWP	TPS70751MPWPREP	TPS77625QPWPREP	V62/03636-10XE
DRV10975GFPWPR	TPS75125MPWPREP	TPS77633QPWPREP	V62/03636-14XE
DRV10983LDPWPR	TPS75201MPWPREP	V62/03630-01XE	V62/04641-01XE
DRV10983LFPWP	TPS75201QPWPREP	V62/03630-02XE	V62/04641-02XE
DRV10983LFPWPR	TPS75215QPWPREP	V62/03630-03XE	V62/04641-02XE-T
DRV10983LGPWPR	TPS75218QPWPREP	V62/03630-04XE	V62/05617-01XE
DRV10983LIPWP	TPS75225QPWPREP	V62/03630-08XE	V62/05620-05XE
DRV10983LIPWPR	TPS75233QPWPREP	V62/03631-01XE	V62/05622-01XE
DRV8842MPWPREP	TPS75301QPWPREP	V62/03631-02XE	V62/06610-01XE
MPL2674QPWPR	TPS75318QPWPREP	V62/03631-04XE	V62/06616-01XE
PDRV10983LGPWP	TPS75325QPWPREP	V62/03631-05XE	V62/06617-01XE
TPS40021MPWPEP	TPS75333QPWPREP	V62/03631-06XE	V62/06657-01XE
TPS40021MPWPREP	TPS76701QPWPREP	V62/03631-07XE	V62/06657-02XE
TPS40055MPWPREP	TPS76715QPWPREP	V62/03631-08XE	V62/06657-03XE
TPS51116MPWPEP	TPS76718QPWPREP	V62/03631-09XE	V62/06657-04XE
TPS51116MPWPREP	TPS76725QPWPREP	V62/03631-10XE	V62/06657-05XE
TPS54010MPWPEP	TPS76733QPWPREP	V62/03631-12XE	V62/06657-06XE
TPS54010MPWPREP	TPS767D301MPWPREP	V62/03632-01XE	V62/07610-01XE
TPS54310MPWPREP	TPS76801MPWPREP	V62/03632-02XE	V62/08606-01XE
TPS54311MPWPREP	TPS76801QPWPREP	V62/03632-03XE	V62/12601-01XE
TPS54312MPWPREP	TPS76815QPWPREP	V62/03632-04XE	V62/12601-01XE-T
TPS54313MPWPREP	TPS76818QPWPREP	V62/03632-08XE	V62/12602-01XE
TPS54314MPWPREP	TPS76825QPWPREP	V62/03632-09XE	V62/12602-01XE-T
TPS54315MPWPREP	TPS76833QPWPREP	V62/03632-10XE	V62/13604-01XE
TPS54316MPWPREP	TPS76850MPWPREP	V62/03632-11XE	V62/13604-01XE-T
TPS54350MPWPREP	TPS76850QPWPREP	V62/03635-01XE	V62/14615-01XE
TPS54354MPWPREP	TPS77501MPWPREP	V62/03635-02XE	

Group 2 Device:

SN1607003PWPR	TPA3136D2PWP	TPA3137D2PWPR	TPA3144D2PWP
TPA3136AD2PWP	TPA3136D2PWPR	TPA3140D2PWP	TPA3144D2PWPR
TPA3136AD2PWPR	TPA3137D2PWP	TPA3140D2PWPR	

Group 3 Device:

BQ24001PWP	TPS40071PWPR	TPS54810PWPR	TPS70702PWPR
BQ24002PWP	TPS40071PWPRG4	TPS54873PWP	TPS70745PWP
BQ24002PWPR	TPS40077PWP	TPS54873PWPR	TPS70748PWP
BQ24003PWP	TPS40077PWPR	TPS54880PWP	TPS70751PWP
BQ24003PWPR	TPS40077PWPRG4	TPS54880PWPR	TPS70751PWPR

BQ24004PWP	TPS5210PWPR	TPS54910PWP	TPS70758PWP
BQ24005PWP	TPS54010PWP	TPS54910PWPG4	TPS70802PWP
BQ24005PWPG4	TPS54010PWPG4	TPS54910PWPR	TPS70802PWPG4
BQ24005PWPR	TPS54010PWPR	TPS54910PWPRG4	TPS70845PWP
BQ24006PWP	TPS54010PWPRG4	TPS54972PWP	TPS70848PWP
BQ24006PWPR	TPS54073PWP	TPS54972PWPR	TPS70851PWP
BQ24008PWP	TPS54073PWPG4	TPS54972PWPRG4	TPS70851PWPR
BQ24008PWPR	TPS54110PWP	TPS54973PWP	TPS70858PWP
BUF05704AIPWPR	TPS54110PWPG4	TPS54973PWPR	TPS71H01QPWPR
BUF07704AIPWPR	TPS54110PWPR	TPS54980PWP	TPS73HD301PWP
BUF11702PWP	TPS54110PWPRG4	TPS54980PWPR	TPS73HD301PWPR
BUF11704AIPWP	TPS54283PWP	TPS55383PWP	TPS76701QPWP
BUF11704AIPWPR	TPS54283PWPR	TPS55383PWPR	TPS76701QPWPG4
BUF11705AIPWPR	TPS54286PWP	TPS55383PWPRG4	TPS76701QPWPR
BUF12800AIPWP	TPS54286PWPG4	TPS55386PWP	TPS76701QPWPRG4
BUF12800AIPWPR	TPS54286PWPR	TPS55386PWPR	TPS76715QPWP
SN0401093PWPR	TPS54310PWP	TPS61030PWP	TPS76718QPWP
SN0405001PWPR	TPS54310PWPG4	TPS61030PWPG4	TPS76718QPWPR
SN0405001PWPRG4	TPS54310PWPR	TPS61030PWPR	TPS76725QPWP
SN0703052PWPR	TPS54310PWPRG4	TPS61030PWPRG4	TPS76725QPWPG4
SN0805014PWPR	TPS54311PWP	TPS61031PWP	TPS76725QPWPR
SN0805014PWPRG4	TPS54312PWP	TPS61031PWPR	TPS76727QPWP
SN0806054PWPR	TPS54312PWPG4	TPS61032PWP	TPS76730QPWP
SN1011063PWPR	TPS54312PWPR	TPS61032PWPR	TPS76730QPWPG4
SN105116PWPR	TPS54312PWPRG4	TPS62110HPWP	TPS76730QPWPR
SN1108019PWPR	TPS54313PWP	TPS65100PWP	TPS76733QPWP
SN1401036PWPR	TPS54313PWPG4	TPS65100PWPR	TPS76733QPWPG4
SN1404013PWPR	TPS54313PWPR	TPS65101PWP	TPS76733QPWPR
SN1407001PWPR	TPS54314PWP	TPS65101PWPR	TPS76733QPWPRG4
SN40057PWPR	TPS54314PWPG4	TPS65105PWP	TPS76750QPWP
TLC5940PWP	TPS54314PWPR	TPS65105PWPR	TPS76750QPWPR
TLC5940PWPR	TPS54314PWPRG4	TPS65140PWP	TPS76801QPWP
TLC5940PWPRG4	TPS54315PWP	TPS65140PWPR	TPS76801QPWPG4
TLC5941PWP	TPS54315PWPR	TPS65141PWP	TPS76801QPWPR
TLC5941PWPG4	TPS54316PWP	TPS65141PWPR	TPS76801QPWPRG4
TLC5941PWPR	TPS54316PWPG4	TPS65145PWP	TPS76815QPWP
TLV2474AIPWP	TPS54316PWPR	TPS65145PWPR	TPS76815QPWPR
TLV2474AIPWPR	TPS54316PWPRG4	TPS65150PWP	TPS76818QPWP
TLV2474CPWP	TPS54350PWP	TPS65150PWPG4	TPS76818QPWPR
TLV2474CPWPR	TPS54350PWPG4	TPS65150PWPR	TPS76825QPWP
TLV2474IPWP	TPS54350PWPR	TPS65160APWP	TPS76825QPWPR
TLV2474IPWPR	TPS54350PWPRG4	TPS65160APWPR	TPS76830QPWP
TLV2475AIPWP	TPS54352PWP	TPS65160PWP	TPS76833QPWP
TLV2475AIPWPR	TPS54352PWPR	TPS65160PWPR	TPS76833QPWPG4
TLV2475CPWPR	TPS54353PWP	TPS65161APWPR	TPS76833QPWPR
TLV2475IPWPR	TPS54353PWPR	TPS65161BPWPR	TPS76833QPWPRG4

TPA2008D2PWP	TPS54354PWP	TPS65161PWPR	TPS76850QPWP
TPA2008D2PWPR	TPS54354PWPR	TPS65161PWPRG4	TPS76850QPWPR
TPA2008D2PWPRG4	TPS54355PWP	TPS70102PWP	TPS77501PWP
TPA3001D1PWP	TPS54356PWP	TPS70102PWPG4	TPS77501PWPR
TPA3001D1PWPG4	TPS54356PWPR	TPS70102PWPR	TPS77515PWP
TPA3001D1PWPR	TPS54356PWPRG4	TPS70102PWPRG4	TPS77515PWPR
TPS2011APWP	TPS54357PWP	TPS70145PWP	TPS77516PWP
TPS2013APWP	TPS54357PWPR	TPS70145PWPG4	TPS77516PWPR
TPS2013APWPR	TPS54372PWP	TPS70145PWPR	TPS77518PWP
TPS2210APWP	TPS54372PWPG4	TPS70148PWP	TPS77518PWPR
TPS2224PWP	TPS54372PWPR	TPS70148PWPR	TPS77525PWP
TPS23750PWP	TPS54372PWPRG4	TPS70151PWP	TPS77533PWP
TPS23750PWPR	TPS54373PWP	TPS70151PWPG4	TPS77533PWPR
TPS23750PWPRG4	TPS54373PWPR	TPS70151PWPR	TPS77601PWP
TPS23770PWP	TPS54373PWPRG4	TPS70151PWPRG4	TPS77601PWPR
TPS23770PWPR	TPS54380PWP	TPS70158PWP	TPS77615PWP
TPS2838PWP	TPS54380PWPG4	TPS70158PWPG4	TPS77618PWP
TPS40020PWP	TPS54380PWPR	TPS70158PWPR	TPS77618PWPR
TPS40021PWP	TPS54380PWPRG4	TPS70202PWP	TPS77625PWP
TPS40021PWPR	TPS54383PWP	TPS70202PWPG4	TPS77625PWPR
TPS40021PWPRG4	TPS54383PWPR	TPS70202PWPR	TPS77633PWP
TPS40050PWP	TPS54383PWPRG4	TPS70245PWP	TPS77633PWPR
TPS40050PWPR	TPS54386PWP	TPS70245PWPR	TPS77715PWP
TPS40051PWP	TPS54386PWPG4	TPS70248PWP	TPS77715PWPG4
TPS40051PWPG4	TPS54386PWPR	TPS70248PWPR	TPS77718PWP
TPS40051PWPR	TPS54386PWPRG4	TPS70251PWP	TPS77718PWPG4
TPS40051PWPRG4	TPS54550PWP	TPS70251PWPR	TPS77718PWPR
TPS40052PWP	TPS54550PWPG4	TPS70258PWP	TPS77725PWP
TPS40052PWPR	TPS54550PWPR	TPS70258PWPG4	TPS77725PWPR
TPS40053PWP	TPS54550PWPRG4	TPS70258PWPR	TPS77733PWP
TPS40053PWPR	TPS54610PWP	TPS70302PWP	TPS77733PWPR
TPS40054PWP	TPS54610PWPG4	TPS70302PWPG4	TPS77801PWP
TPS40054PWPG4	TPS54610PWPR	TPS70302PWPR	TPS77801PWPG4
TPS40054PWPR	TPS54610PWPRG4	TPS70345PWP	TPS77801PWPR
TPS40055PWP	TPS54611PWP	TPS70345PWPG4	TPS77801PWPRG4
TPS40055PWPG4	TPS54612PWP	TPS70345PWPR	TPS77815PWP
TPS40055PWPR	TPS54612PWPG4	TPS70348PWP	TPS77815PWPG4
TPS40055PWPRG4	TPS54612PWPR	TPS70348PWPR	TPS77815PWPR
TPS40056PWP	TPS54612PWPRG4	TPS70351PWP	TPS77818PWP
TPS40056PWPR	TPS54613PWP	TPS70351PWPG4	TPS77818PWPG4
TPS40057PWP	TPS54613PWPG4	TPS70351PWPR	TPS77818PWPR
TPS40057PWPG4	TPS54613PWPR	TPS70358PWP	TPS77825PWP
TPS40057PWPR	TPS54614PWP	TPS70358PWPR	TPS77825PWPR
TPS40057PWPRG4	TPS54614PWPG4	TPS70402PWP	TPS77833PWP
TPS40057ZWPR	TPS54614PWPR	TPS70402PWPG4	TPS77833PWPR
TPS40060PWP	TPS54615PWP	TPS70402PWPR	UCC2540PWP

TPS40060PWPR	TPS54615PWPR	TPS70445PWP	UCC2540PWPR	
TPS40060PWPRG4	TPS54616PWP	TPS70445PWPR	UCC2541PWPR	
TPS40061PWP	TPS54616PWPG4	TPS70448PWP	UCC27222PWP	
TPS40061PWPG4	TPS54616PWPR	TPS70448PWPR	UCC27222PWPG4	
TPS40061PWPR	TPS54673PWP	TPS70451PWP	UCC27222PWPR	
TPS40061PWPRG4	TPS54673PWPR	TPS70451PWPR	UCC27223PWP	
TPS40070PWP	TPS54680PWP	TPS70458PWP	UCC27223PWPR	
TPS40070PWPR	TPS54680PWPR	TPS70458PWPR		
TPS40071PWP	TPS54810PWP	TPS70702PWP		

Qualification Report

Automotive Product Qualification Summary (As per AEC-Q100, AEC-Q006, and JEDEC Guidelines)

Approve Date 19-May-2023

Product Attributes

Attributes	Qual Device: TPS40050QPWPRQ1	Qual Device: PCM1681TPWPRQ1	Package, Process QBS Reference: TPS54616PWPRQ1	Package, Process QBS Reference: LM7302QPWPRQ1	Package, Process QBS Reference: DS9E040PWPRQ1	Package, Process QBS Reference: TLC7110QPWPRQ1	Package QBS Reference: TPS54616PWPRQ1	Package QBS Reference: TPS54616PWPRQ1	Package, Process QBS Reference: PCM1681TPWPRQ1	Package QBS Reference: TPS70445PWPRQ1	Package, Process QBS Reference: SMD4680PWPRQ1	Package, Process QBS Reference: SMD4680PWPRQ1
Automotive Grade Level	Grade 1	Grade 2	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 105	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Power Management	Signal Chain	Power Management	Power Management	Signal Chain	Power Management	Power Management	Signal Chain	Power Management	Signal Chain	Power Management	Signal Chain
Wafer Fab Supplier	DL-LIN	TSMC-WF3	M&B	RFAB	DP10M5	DL-LIN	DL-LIN	DL-LIN	TSMC-WF3	DL-LIN	CFAB, RFAB	DP10M5, M&B
Assembly Site	TAI	TAI	TAI	TAI	TAI	TAI	TAI	MLA	TAI	TAI	TAI	TAI
Package Group	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP	TSSOP
Package Designator	PWP	PWP	PWP	PWP	PWP	PWP	PWP	PWP	DB	PWP	PWP	PWP
Pin Count	16	28	14	16	28	20	20	24	28	20	24	28

QBS: Qual By Similarity

Qual Device TPS40050QPWPRQ1 is qualified at MSL2 260C

Qual Device PCM1681TPWPRQ1 is qualified at MSL4 2 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: TPS40050QPWPRQ1	Qual Device: PCM1681TPWPRQ1	Package, Process QBS Reference: TPS54616PWPRQ1	Package, Process QBS Reference: LM7302QPWPRQ1	Package, Process QBS Reference: DS9E040PWPRQ1	Package, Process QBS Reference: TLC7110QPWPRQ1	Package QBS Reference: TPS54616PWPRQ1	Package QBS Reference: TPS54616PWPRQ1	Package, Process QBS Reference: PCM1681TPWPRQ1	Package QBS Reference: TPS70445PWPRQ1	Package, Process QBS Reference: SMD4680PWPRQ1	Package, Process QBS Reference: SMD4680PWPRQ1
Test Group A - Accelerated Environment Stress Tests																			
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	1 Step	-	-	-	-	-	-	-	-	All Pass	-	-	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	1 Step	-	-	All Pass	-	-	All Pass	All Pass	-	-	-	-	All Pass
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	1 Step	-	-	-	All Pass	All Pass	-	-	All Pass	-	All Pass	All Pass	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL4 260C	1 Step	-	All Pass	-	-	-	-	-	-	-	-	-	-
HAST	A2	JEDEC JESD22-A119	3	77	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	3/231/0	1/77/0	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0	-
AC/HAST	A3	JEDEC JESD22-A118	3	77	Autoclave	121C/15psi	96 Hours	-	3/231/0	3/231/0	3/231/0	3/231/0	1/77/0	1/77/0	1/77/0	3/231/0	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	3/231/0	1/77/0	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0	3/231/0
TC-BP	A4	ML-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	1/5/0	3/15/0	1/5/0	1/5/0	3/135/0	3/135/0	1/5/0	1/5/0	-	-	1/5/0	1/5/0
PTC	A5	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	-	-	1/45/0	2/90/0	1/45/0	1/45/0	-	-	-	-	1/45/0	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	-	-	1/45/0	-	-	-	1/45/0	-	-	-	3/135/0	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	500 Hours	-	1/45/0	-	-	-	-	-	-	-	-	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	-	-	-	3/135/0	-	-	-	-	1/45/0	1/45/0	-	-
Test Group B - Accelerated Lifetime Simulation Tests																			
HTOL	B1	JEDEC JESD22-A108	1	77	Life Test	125C	1000 Hours	-	-	3/231/0	1/77/0	-	3/231/0	-	-	3/231/0	-	-	3/231/0
HTOL	B1	JEDEC JESD22-A108	1	77	Life Test	150C	408 Hours	-	-	-	-	1/77/0	-	-	-	-	-	3/231/0	-
ELFR	B2	AEC Q100-008	1	77	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-	-	-	-	-	3/2400/0	-	-	-
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	3/90/0	1/30/0	1/30/0	1/30/0	3/90/0	3/90/0	3/90/0	3/90/0
WBP	C2	ML-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	1/30/0	1/30/0	1/30/0	3/90/0	3/90/0	3/90/0	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	1/15/0	-	1/15/0	-	-	-	-	-	-	1/15/0	-
PD	C4	JEDEC JESD22-B100 and B108	1	10	Physical Dimensions	Cpk>1.67	-	3/30/0	3/30/0	3/30/0	3/30/0	3/30/0	1/10/0	1/10/0	1/10/0	3/30/0	3/30/0	3/30/0	3/30/0

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

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

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