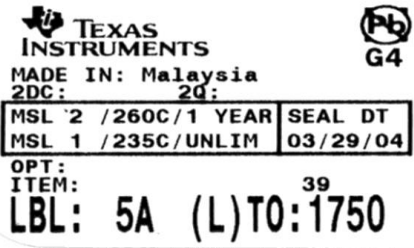


PCN Number:	20231016000.2		PCN Date:	October 16, 2023	
Title:	Qualification of RFAB as an additional Fab site option for select LBC8LV devices				
Customer Contact:	Change Management team		Dept:	Quality Services	
Proposed 1st Ship Date:	Apr 16, 2024		Sample requests accepted until:	Nov 16, 2023*	
*Sample requests received after November 16, 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 Material
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.					
Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter
DMOS6	LBC8LV	300mm	RFAB	LBC8LV	300mm
Qual details are provided in the Qual Data Section.					
Reason for Change:					
Continuity of supply.					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None					
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		
DMOS6	DM6	USA	Dallas		
RFAB	RFB	USA	Richardson		
Sample product shipping label (not actual product label)					
  (1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CS0: SHE (21L) CC0:USA (22L) AS0: MLA (23L) AC0: MYS					
Product Affected:					
ADS130B02QPWRQ1	LP87521FRNFRQ1	LP87524URNFRQ1	LP875650RNFRQ1		
ADS130B04QPWRQ1	LP87521QRNFRQ1	LP87524YRNFRQ1	LP875651RNFRQ1		
ADS131B02QPWRQ1	LP87521QRNFTQ1	LP87525ARNFRQ1	LP87565CNRNFRQ1		
ADS131B04QPWRQ1	LP87521RRNFRQ1	LP87525BRNFRQ1	LP87565CNRNFTQ1		
ADS131B23QPHPRQ1	LP87521SRNFRQ1	LP87525JRNFRQ1	LP87565CRNFRQ1		

ADS131B24QPHPRQ1	LP87522BRNFRQ1	LP87525KRNFRQ1	LP87565CRNFTQ1
ADS131B26QPHPRQ1	LP87522BRNFTQ1	LP875610BRNFRQ1	LP87565RRNFRQ1
ADS131M02QPWRQ1	LP87522ERNFRQ1	LP875610RNFRQ1	LP87565SRNFRQ1
ADS131M03QPWRQ1	LP87522ERNFTQ1	LP875612RNFRQ1	LP87565SRNFTQ1
ADS131M04QPWRQ1	LP87522GRNFRQ1	LP875612RNFTQ1	LP87565URNFRQ1
ADS131M06QPBSRQ1	LP87522JRNFRQ1	LP875613RNFRQ1	LP87565VRNFRQ1
ADS131M08QPBSRQ1	LP87522JRNFTQ1	LP875613RNFTQ1	LP87565ZRNFRQ1
INA186A1QDBVRQ1	LP875230CRNFRQ1	LP875615RNFRQ1	LP875701ARNFRQ1
INA186A1QDCKRQ1	LP875230DRNFRQ1	LP875615RNFTQ1	LP875701BRNFRQ1
INA186A1QDDFRQ1	LP87523JRNFRQ1	LP87561FRNFRQ1	LP875701CRNFRQ1
INA186A2QDBVRQ1	LP87523LRNFRQ1	LP87561SRNFRQ1	LP875701DRNFRQ1
INA186A2QDCKRQ1	LP87523NRNFRQ1	LP87561TRNFRQ1	LP875761ARNFRQ1
INA186A2QDDFRQ1	LP87523RRNFRQ1	LP87561VRNFRQ1	LP875761ARNFTQ1
INA186A3QDBVRQ1	LP87523RRNFTQ1	LP87561WRNFRQ1	LP877020RHBRQ1
INA186A3QDCKRQ1	LP87523URNFRQ1	LP87562ERNFRQ1	LP877021RHBRQ1
INA186A3QDDFRQ1	LP87523URNFTQ1	LP87562KRNFRQ1	LP87702DRHBRQ1
INA186A4QDBVRQ1	LP875240JRNFRQ1	LP87562MRNFRQ1	LP87702DRHBTQ1
INA186A4QDCKRQ1	LP875240URNFTQ1	LP87562PRNFRQ1	LP87702KRHBRQ1
INA186A4QDDFRQ1	LP875241ERNFRQ1	LP87562QRNFRQ1	LP87702KRHBTQ1
INA186A5QDBVRQ1	LP875241ERNFTQ1	LP87562QRNFTQ1	LP87702LRHBRQ1
INA186A5QDCKRQ1	LP875241FRNFRQ1	LP87562RRNFRQ1	LP87702PRHBRQ1
INA186A5QDDFRQ1	LP875241FRNFTQ1	LP875630ARNFRQ1	LP87702PRHBTQ1
INA190A1QDCKRQ1	LP875241HRNFRQ1	LP875630ARNFTQ1	LP87702QRHBRQ1
INA190A1QDDFRQ1	LP875241HRNFTQ1	LP875630RNFRQ1	LP87702RRHBRQ1
INA190A2QDCKRQ1	LP875241JRNFRQ1	LP87563ARNFRQ1	LP87702RRHBTQ1
INA190A2QDDFRQ1	LP875241MRNFRQ1	LP87563JRNFRQ1	LP87702TRHBRQ1
INA190A3QDCKRQ1	LP87524BRNFRQ1	LP87563LRNFRQ1	LP87702TRHBTQ1
INA190A3QDDFRQ1	LP87524BRNFTQ1	LP87563QRNFRQ1	LP87702YRHBRQ1
INA190A4QDCKRQ1	LP87524FRNFRQ1	LP875640RNFRQ1	SN1906023DBVRQ1
INA190A4QDDFRQ1	LP87524JRNFRQ1	LP875640RNFTQ1	SN2106047QDVERQ1
INA190A5QDCKRQ1	LP87524JRNFTQ1	LP87564ARNFRQ1	SN2106048QDVERQ1
INA190A5QDDFRQ1	LP87524PRNFRQ1	LP87564JRNFRQ1	UCC12041QDVERQ1
LP87514BRNFRQ1	LP87524RRNFRQ1	LP87564LRNFRQ1	UCC12051QDVERQ1
LP87521CRNFRQ1	LP87524TRNFRQ1	LP87564QRNFRQ1	
LP87521ERNFRQ1	LP87524TRNFTQ1	LP87564TRNFRQ1	

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

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: LP878332ARHDRQ1	Qual Device: LP878332ARHDRQ1
Test Group A – Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	Level 2-260C	Passed	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0	-
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	Wires	Passed	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	1/45/0	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 150C	1000 Hours	3/231/0	-
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test 150C	1000 Hours	1/77/0	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	1000 Hours	Extend HTSL data (A6)	-
Test Group C – Package Assembly Integrity Tests								
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear Cpk>1.67	Wires	1/30/0	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: LP878332ARHDRQ1	Qual Device: LP878332ARHDRQ1
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull Cpk>1.67	Wires	1/30/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb-Free	1/15/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability.	Pb	1/15/0	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	-	3/30/0	-
Test Group D – Die Fabrication Reliability Tests								
EM	D1	JESD61	-	-	Electromigration	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Tddb	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM	2500 V	1/3/0	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM	1500 V	1/3/0	-
LU	E4	AEC Q100-004	1	6	Latch-up (25C, 125C)	Per AEC Q100-004	1/12/0	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67	3/90/0	-

- QBS: Qual By Similarity

- Qual Device LP878332ARHDRQ1 is qualified at LEVEL2-260C

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST & TC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C

Grade 1 (or Q): -40°C to +125°C

Grade 2 (or T): -40°C to +105°C

Grade 3 (or I): -40°C to +85°C

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

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

TI Qualification ID: 20160518-117830



TI Information
Selective Disclosure

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

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: DRV2605LTDGSRQ1	QBS Package Reference: TMP411BQDGKRQ1
Test Group A – Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning	Level 2-260C	3/1034/0	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0	-
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-
TC-BP	A4	MIL-STD883 Method 2011	1	30	Post Temp. Cycle Bond Pull	Wires	1/30/0	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Bake, 150C	1000 Hours	1/45/0	-
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	3/231/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 105C	48 Hours	3/2400/0	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	N/A	-
Test Group C – Package Assembly Integrity Tests								
WBS	C1	AEC Q100-001	1	30	Bond Shear (Cpk>1.67)	Wires	1/30/0	-
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull (Cpk>1.67)	Wires	1/30/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	-	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	--	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 Injection Carrier	-	Completed Per Process Technology Requirements	-
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	-
SM	D5	-	-	-	Stress Migration	-	Completed Per Process Technology Requirements	-
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM	500 V (Note 1)	1/3/0	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM	1000 V	1/3/0	-
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67	3/90/0	-

- QBS: Qual By Similarity

- Qual Device DRV2605LTDGSRQ1 is qualified at LEVEL2-260C

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST & TC samples, as applicable.

Junction Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C

Grade 1 (or Q): -40°C to +125°C

Grade 2 (or T): -40°C to +105°C

Grade 3 (or I): -40°C to +85°C

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

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

Note (1): ESD Waiver attached to eQDB.

TI Qualification ID: 20150113-110803



TI Information
Selective Disclosure

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

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: <u>LM2775QDSGRQ1</u>	QBS Process Reference: <u>LP87332ARHDRQ1</u>	QBS Package Reference: <u>TPS2546QRTERRQ1</u>
Test Group A – Accelerated Environment Stress Tests									
			3	22	SAM Analysis, Pre Stress	Completed	3/66/0		3/66/0
PC	A1	JEDEC J-STD-020; JESD22-A113	3	77	Preconditioning	Level 2- 260C	3/All/0	-	3/All/0
			3	22	SAM Analysis, Post Precon	Completed	3/66/0		3/66/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-	3/231/0
			3	1	Cross Section, Post bHAST 96 Hours	Completed	3/3/0	-	3/9/0
			3	22	SAM Analysis, Post bHAST, 96 Hours	Completed	3/66/0	-	3/66/0
			3	30	Wire Bond Shear, Post bHAST, 96 Hours	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Stitch, post bHAST, 96 Hours	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Ball, Post bHAST, 96 Hours	Wires	3/90/0		3/90/0

Type	#	Test Spec	Min Lot Qty	SS/ Lot	Test Name / Condition	Duration	Qual Device: <u>LM2775QDSGRQ1</u>	QBS Process Reference: <u>LP87332ARHDRQ1</u>	QBS Package Reference: <u>TPS2546QRTERRQ1</u>
HAST	A2	JEDEC JESD22-A110	3	70	Biased HAST, 130C/85%RH	192 Hours	3/210/0	-	3/210/0
			3	1	Cross Section, Post bHAST 192 Hours	Completed	3/3/0	-	3/9/0
			3	22	SAM Analysis, Post bHAST, 192 Hours	Completed	3/66/0	-	3/66/0
			3	30	Wire Bond Shear, Post bHAST 192 Hours	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Stitch, post bHAST 192 Hours	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Ball, Post bHAST 192 Hours	Wires	3/90/0	-	3/90/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0	-	3/231/0
TC	A4	JEDEC JESD22-A104	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	3/231/0
			3	1	Cross Section, Post T/C 500 Cycles	Completed	3/3/0	-	3/9/0
			3	22	SAM Analysis, Post T/C 500 Cycles	Completed	3/66/0	-	3/66/0
			3	30	Wire Bond Shear, Post T/C 500 Cycles	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Stitch, Post T/C 500 Cycles	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Ball Post T/C 500 Cycles	Wires	3/90/0	-	3/90/0
TC	A4	JEDEC JESD22-A104	3	70	Temperature Cycle, -65/150C	1000 Cycles	3/210/0	-	3/210/0
			3	1	Cross Section, Post T/C 1000 Cycles	Completed	3/3/0	-	3/9/0
			3	22	SAM Analysis, Post T/C 1000 Cycles	Completed	3/66/0	-	3/66/0
			3	30	Wire Bond Shear, Post T/C 1000 Cycles	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Stitch, Post T/C 1000 Cycles	Wires	3/90/0	-	3/90/0
			3	30	Bond Pull over Ball, Post T/C 1000 Cycles	Wires	3/90/0	-	3/90/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle, -40/125C	1000 Cycles	1/45/0	-	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle, -40/125C	2000 Cycles	1/45/0	-	-

Type	#	Test Spec	Min Lot Qty	SS/ Lot	Test Name / Condition	Duration	Qual Device: <u>LM2775QDSGRQ1</u>	QBS Process Reference: <u>LP87332ARHDRQ1</u>	QBS Package Reference: <u>TPS2546QRTERRQ1</u>
HTSL	A6	JEDEC JESD22-A103	3	45	High Temp Storage Bake 175C	500 Hours	3/135/0	-	-
			3	1	Cross Section, Post HTSL 500 Hours	Completed	3/3/0		-
HTSL	A6	JEDEC JESD22-A103	3	44	High Temp Storage Bake 175C	1000 Hours	3/132/1*	-	-
			3	1	Cross Section, Post HTSL 1000 Hours	Completed	3/3/0		-
HTSL	A6	JEDEC JESD22-A103	3	45	High Temp Storage Bake 150C	1000 Hours	-	-	3/145/0
			3	1	Cross Section, Post HTSL 1000 Hours	Completed	-		3/3/0
HTSL	A6	JEDEC JESD22-A103	3	44	High Temp Storage Bake 150C	2000 Hours	-	-	3/132/0
			3	1	Cross Section, Post HTSL 2000 Hours	Completed	-		3/3/0
Test Group B – Accelerated Lifetime Simulation Tests									
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	3/231/0	-	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	1000 Hours	-	3/231/0	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	-	-	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	3/2400/0	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	--	N/A	-	-
Test Group C – Package Assembly Integrity Tests									
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear, Cpk>1.67	Wires	3/90/0	-	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull over Stitch, Cpk>1.67	Wires	3/90/0	-	-
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull over Ball, Cpk>1.67	Wires	3/90/0	-	3/90/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	Pb Free	3/45/0	-	3/45/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	Pb	3/45/0	-	3/45/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions Cpk>1.67	--	3/90/0	-	3/90/0

Type	#	Test Spec	Min Lot Qty	SS/ Lot	Test Name / Condition	Duration	Qual Device: <u>LM2775QDSGRQ1</u>	QBS Process Reference: <u>LP87332ARHDRQ1</u>	QBS Package Reference: <u>TPS2546QRTERRQ1</u>
LI	C6	JEDEC JESD22-B105	1	50	Lead Integrity	Leads	N/A	-	-
Test Group D – Die Fabrication Reliability Tests									
EM	D1	JESD61	-	-	Electromigration	-	Completed Per Process Technology Requirements	-	-
Tddb	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	Completed Per Process Technology Requirements	-	-
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	-	Completed Per Process Technology Requirements	-	-
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	-	-
SM	D5	-	-	-	Stress Migration	-	Completed Per Process Technology Requirements	-	-
Test Group E – Electrical Verification Tests									
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	3000 V	1/3/0	-	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	1/3/0	-	-
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	-	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, Hot, and Cold	3/90/0	-	-

- QBS: Qual By Similarity

- Qual Device LM2775QDSGRQ1 is qualified at LEVEL2-260C

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST, TC & PTC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C

Grade 1 (or Q): -40°C to +125°C

Grade 2 (or T): -40°C to +105°C

Grade 3 (or I): -40°C to +85°C

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

Green/Pb-free Status:
Qualified Pb-Free(SMT) and Green

Note: * 1 failure due to trim bit data change. Not Cu wire related.

TI Qualification ID: 20170720-122597



TI Information
Selective Disclosure

Automotive New Product Qualification Summary

(As per AEC-Q100 and JEDEC Guidelines)

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: BQ79606PHP-Q1.4	QBS Product Reference: BQ79606PHP-Q1.1	QBS Product Reference: BQ79606PHP-Q1.3	QBS Process Reference: DRV269SLTDGSRQ1	QBS Package Reference: DRV3294QPHPQ1	QBS Package Reference: SN4983APHPRG4
Test Group A - Accelerated Environment Stress Tests												
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	Level 2-280C	-	-	-	3/1034/0	-	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	Level 3-280C	-	Pass	Pass	-	Pass	-
THB	A2	JEDEC JESD22-A101	3	77	Biased Temperature & Humidity, 85C/85%RH	1000 Hours	-	-	-	-	3/231/0	-
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	1/77/0	1/77/0	3/231/0	-	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	-	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -85/150C	500 Cycles	-	1/77/0	1/77/0	3/231/0	3/231/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	80	Post Temp. Cycle, Bond Pull	Wires	-	1/30/0	1/30/0	1/30/0	-	1/5/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle, -40/105C	1000 Cycles	-	1/45/0	1/43/0	-	-	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle, -40/105C	550 Cycles	-	-	1/45/1*	-	-	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle, -40/105C	850 Cycles	-	-	1/44/1*	-	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Bake, 150C	1000 Hours	-	-	1/45/0	-	-	1/45/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Bake, 175C	168 Hours	-	-	-	-	1/45/0	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Bake, 175C	500 Hours	-	-	-	-	1/45/0	-
Test Group B - Accelerated Lifetime Simulation Tests												
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1008 Hours	-	-	2/164/0	3/231/0	-	3/231/0
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	1000 Hours	-	-	-	-	3/227/2**	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	168 Hours	-	-	-	-	3/231/0	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	500 Hours	-	-	-	-	3/231/4**	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 105C	48 Hours	-	-	-	3/2400/0	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	24 Hours	-	3/2400/0	1/800/0	-	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	-	-	-	-	-	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM - Operational Life, 125C	1008 Hours	-	1/77/0	-	-	-	-
EDR	B3	AEC Q100-005	3	77	Auto NVM - High Temp. Storage Bake, 150C	1008 Hours	-	1/77/0	-	-	-	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	--	N/A	-	-	-	-	-
Test Group C - Package Assembly Integrity Tests												
WBS	C1	AEC Q100-001	1	30	Bond Shear (Cpk>1.67)	Wires	-	-	3/90/0	1/30/0	-	-
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull (Cpk>1.67)	Wires	-	-	3/228/0	1/30/0	3/15/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free, Post 8 Hours Steam Age	-	1/15/0	-	-	-	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb, Post 8 Hours Steam Age	-	1/15/0	-	-	-	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	8 Hours Steam Age	-	-	-	-	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B109	3	10	Physical Dimensions (Cpk>1.67)	--	-	-	-	3/30/0	-	3/38/0
LI	C6	JEDEC JESD22-B105	1	50	Lead Integrity	Leads	-	-	-	-	-	-
LI	C6	JEDEC JESD22-B105	1	50	Lead Pull to Destruction	Leads	-	1/6/0	-	-	-	-
Test Group D - Die Fabrication Reliability Tests												
EM	D1	JESD61	-	-	Electromigration	--	Completed Per Process Technology Requirements	-	-	-	-	-
TDOB	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	--	Completed Per Process Technology Requirements	-	-	-	-	-
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	--	Completed Per Process Technology Requirements	-	-	-	-	-
NBTI	D4	-	-	-	Negative Bias Temperature Instability	--	Completed Per Process Technology Requirements	-	-	-	-	-
SM	D5	-	-	-	Stress Migration	--	Completed Per Process Technology Requirements	-	-	-	-	-
Test Group E - Electrical Verification Tests												
HBM	E2	AEC Q100-002	1	3	ESD - HBM	4000 V	1/3/0	-	1/3/0	-	-	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM	500 V	-	-	1/3/0	-	1/3/0	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM	750 V	-	-	1/3/0	-	1/3/0	-
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	-	2/12/0	1/6/0	2/12/0	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, Hot, & Cold	-	-	3/90/0	3/90/0	-	-
ED	E5	AEC Q100-009	3	30	Electrical Characterization	Per Datasheet Parameters	1/30/0	-	-	-	-	-
Additional Tests												
-	-	-	-	-	Automotive L3 Powerpad Moisture Sensitivity	Thermal Integrity Sequence - MSL3	-	1/12/0	-	-	-	-
-	-	-	-	-	Intermittent Operating Life	Power Cycling (OTP Read 10K times)	-	-	3/231/0	-	-	-
MQ	-	-	-	-	Manufacturability (TQ-Testability)	(Approved by Test site)	Pass	-	-	-	-	-

- QBS: Qual By Similarity
- Qual Device BQ79606PHP-Q1.4 is qualified at LEVEL3-280C

A1 (PC): Preconditioning:
Performed for THB, Biased HAST, AC, uHAST, TC & PTC samples, as applicable.
Ambient Operating Temperature by Automotive Grade Level:
Grade 0 (or E): -40°C to +150°C
Grade 1 (or Q): -40°C to +125°C
Grade 2 (or T): -40°C to +105°C
Grade 3 (or I): -40°C to +85°C
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
Green/Pb-free Status:
Qualified Pb-Free(SMT) and Green
Change Number: N/A

TI Qualification ID: 20181008-127265

ZVEI ID: SEM-PW-13

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disdains responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.