

PCN Number:	20221020001.1		PCN Date:	October 21, 2022	
Title:	Qualification of additional Fab site (UMC-F12) and additional Assembly site (Clark) for select LBC9 devices				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	Jan 20, 2023		Sample Requests accepted until:	Nov 20, 2022	
*Sample requests received after November 20, 2022 will not be supported.					
Change Type:					
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
		<input type="checkbox"/>	Part number change		
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of an additional fab (UMC-F12) and assembly site (Clark) for the selected devices listed in the "Product Affected" section.					
Current Fab Site			New Fab Site		
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter
RFAB	LBC9	300 mm	UMC-F12	LBC9	300 mm
There are no construction difference between the current and new Assembly sites.					
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					
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	
<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> 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		
RFAB	RFB	USA	Richardson		
UMC-F12	F12	TWN	Tainan		
Assembly Site Information:					
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City		
CDAT	CDA	CHN	Chengdu		
Clark	QAB	PHL	Angeles City, Pampanga		

Sample product shipping label (not actual product label)


TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:
 MSL 2 /260C/1 YEAR SEAL DT
 MSL 1 /235C/UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)T0:1750



(1P) SN74LS07NSR
 (Q) 2000 (D) 0336
 (31T) LOT: 3959047MLA
 (4W) TKY (1T) 7523483SI2
 (P)
 (2P) REV: (V) 0033317
 (20L) CSO: SHE (21L) CCO: USA
 (22L) ASO: MLA (23L) ACO: MYS

Product Affected:

BQ25960YBGR BQ25960YBGT

Qualification Report

Approved 16-Feb-22

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: BQ25960YBG	QBS Process Reference: BQ25980YFF
-	Bump-shear (WCSP)	min 50 bumps	3/150/0	-
-	Manufacturability TQ - Testability	(per mfg. Site specification)	1/Pass	1/Pass
CDM	ESD - CDM	750 V	-	1/3/0
CDM	ESD - CDM	1500 V	1/3/0	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0
HAST	Biased HAST, 130C/85%RH	96 hours	3/231/0	3/231/0
HBM	ESD - HBM	4000 V	1/3/0	1/3/0
HTOL	Life Test, 125C	1000 hours	1/77/0	1/77/0
HTSL	High Temp Storage Bake 150C	1000 hours	3/231/0	3/231/0
LU	Latch-up	(per JESD78), Ta=Room, high	1/6/0	1/6/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	1/Pass	3/Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	1/Pass	1/Pass
TC	Temperature Cycle, -55/125C	700 cycles	3/231/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 hours	3/231/0	3/231/0

- QBS: Qual By Similarity
 - Qual Device BQ25960YBG is qualified at LEVEL1-260C
 - 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
- Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>
- Green/Pb-free Status:**
 Qualified Pb-Free (SMT) and Green

Qualification Report

Approved 16-Feb-22

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: BQ25790YBG	QBS Process/Package Reference: BQ25960YBG	QBS Process Reference: BQ25980YFF
-	Bump-shear (WCSP)	min 50 bumps	-	3/150/0	-
-	Manufacturability TQ - Testability	(per mfg. Site specification)	1/Pass	1/Pass	1/Pass
CDM	ESD - CDM	750 V	-	-	1/3/0
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0	1/30/0
HAST	Biased HAST, 130C/85%RH	96 hours	-	3/231/0	3/231/0
HBM	ESD - HBM	4000 V	1/3/0	1/3/0	1/3/0
HTOL	Life Test, 125C	1000 hours	1/77/0	1/77/0	1/77/0
HTSL	High Temp Storage Bake 150C	1000 hours	1/77/0	3/231/0	3/231/0
LU	Latch-up	(per JESD78), Ta=Room, high	1/6/0	1/6/0	1/6/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	1/Pass	1/Pass	3/Pass
MQ	Manufacturability (Bump)	(per mfg. Site specification)	-	1/Pass	1/Pass
TC	Temperature Cycle, -55/125C	700 cycles	-	3/231/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 hours	-	3/231/0	3/231/0

- QBS: Qual By Similarity

- Qual Device BQ25790YBG is qualified at LEVEL1-260C

- Qual Device BQ24179YBG is qualified at LEVEL1-260C. BQ24179YBG is a paper spin of BQ25790YBG. The only difference between those devices is the top marking.

- 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

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the contact shown below or your local Field Sales Representative.

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com

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