

PCN-243585

Product Change Notice

Issue Date: 24-Feb-2022

Update: 7-Jun-2022

Change Description:

Change the mold compound to Sumitomo G700LA

Parts Affected:

BCM89610A2BMLGT
 BCM89610A2BMLG
 BCM89810A2AMLGT
 BCM89810A2AMLG

Description and Extent of Change:

Change the mold compound from HITACHI CEL-9240-HF to Sumitomo G700LA (see table below):

Key Items from the CDCQ	Existing	New
Mold compound supplier & ID:	HITACHI CEL-9240-HF	Sumitomo G700LA
Mold compound type:	Epoxy w/Silica Filler	Epoxy w/Silica Filler
Flammability rating: (UL 94 V1 or UL 94 V0)	UL 94 V0	UL 94 V0
Tg (glass transition temperature) (°C):	120	125
CTE (ppm/°C): CTE1 (above Tg)	7	10
CTE2 (below Tg)	32	39

Reasons for Change:

EOL of Silica Filler for the Hitachi mold compound. Move to Sumitomo mold compound to align with other Broadcom and Supplier automotive QFN devices (e.g. BCM89811).

Effect of Change on Fit, Form, Function, Quality, or Reliability:

The device specification will remain the same, which will ensure product electrical performance remains the same. Appropriate electrical validation and reliability qualification was performed to ensure normal parametric distribution, consistent electrical performance, and reliability.

Effective Date of Change:

Product shipments using this change will begin after **1-Sep-2022**. Timing of shipment of the changed part will vary by part number depending on customer demand and inventory levels.

Sample Availability:

Samples with the updated mold compound **are available**.

Please contact your Broadcom Sales Representative by **15-Mar-2022** to reserve your samples.

Qualification Data:

Qualification data with the new mold compound will be available **1-May-2022**. Please reference the qualification plan below.

PC/MSL	A1	JESD22-A113, J-STD-020	Level 3 (soak: 30°C, 60%RH); Peak Reflow Temp = 260°C.	All units for bHAST, uHAST, TC	192 hrs	0 Fails
bHAST	A2	JESD22-A110	Pre-con Parts; 130°C, 85%RH.	3 lots * 77 units/lot = 231 units	96 hrs	0 Fails
uHAST	A3	JESD22-A118	Pre-con Parts; 130°C, 85%RH.	3 lots * 77 units/lot = 231 units	96 hrs	0 Fails
TC	A4	JESD22-A104	Pre-con Parts; air to air; -65°C to 150°C.	3 lots * 77 units/lot = 231 units	500 cys	0 Fails

PTC	A5	JESD22-A105	Pre-con Parts; Grade 1: -40°C to 125°C Grade 2 & 3: -40°C to 105°C	1 lot * 45 units	1000 cys	N/A – Device power < 1W
HTSL	A6	JESD22-A103	Ta = +150°C	1 lot * 45 units	1000 hrs	0 Fails
HTOL	B1	JESD22-A108	Ta = 125°C, >80% Node Toggle; VDD=1.15*VDDnom.	1 lot * 77 units	1000 hrs	0 Fails
ELFR	B2	JESD22-A108	Ta = 125°C, >80% Node Toggle; VDD=1.15*VDDnom.	1 lot * 800 units	48 hrs	QBS to BRCM generic device data. >7,500 units / 0 Fails (>7M hrs).
SD	C3	JESD22-B102	≥ 95% Lead Coverage	1 lot * 15 units	-	0 Fails
PD	C4	JESD22-B100 & B108	Cpk > 1.67	3 lots * 10 units/lot = 30 units	-	Cpk = 3.42
SER	E11	JESD89	Applicable for devices with Memory sizes of ≥ 1Mbit SRAM or DRAM based cells.	1 lot * 3 units	-	N/A – No user Ram on device.

Software / Firmware Update:

This change does not impact Software / Firmware.

Please contact your Broadcom field sales engineer or Contact Center for any questions or support requirements.

Please return any response as soon as possible, but **not to exceed 30 days**.