

# 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.

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

|             |     |                    |   |                                  |          |   |
|-------------|-----|--------------------|---|----------------------------------|----------|---|
| <b>PTC</b>  | A5  | JESD22-A105        | Pre-con Parts;<br>Grade 1: -40°C to 125°C<br>Grade 2 & 3: -40°C to 105°C      | 1 lot * 45 units                 | 1000 cys | N/A – Device power < 1W   |
| <b>HTSL</b> | A6  | JESD22-A103        | Ta = +150°C   | 1 lot * 45 units                 | 1000 hrs | <b>0 Fails</b>  |
| <b>HTOL</b> | B1  | JESD22-A108        | Ta = 125°C,<br>>80% Node Toggle;<br>VDD=1.15*VDDnom.                          | 1 lot * 77 units                 | 1000 hrs | <b>0 Fails</b>  |
| <b>ELFR</b> | B2  | JESD22-A108        | Ta = 125°C,<br>>80% Node Toggle;<br>VDD=1.15*VDDnom.                          | 1 lot * 800 units                | 48 hrs   | QBS to BRCM generic device data.<br>>7,500 units / 0 Fails (>7M hrs). |
| <b>SD</b>   | C3  | JESD22-B102        | ≥ 95% Lead Coverage   | 1 lot * 15 units                 | -        | <b>0 Fails</b>  |
| <b>PD</b>   | C4  | JESD22-B100 & B108 | Cpk > 1.67  | 3 lots * 10 units/lot = 30 units | -        | <b>Cpk = 3.42</b>   |
| <b>SER</b>  | 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**.