

## Product Change Notice

Issue Date: 20-Oct-2022

**Change Description:**

Add PBGA substrate 2nd source supplier

**Parts Affected:**

BCM89200BPBG  
BCM89200BPBGT

**Description and Extent of Change:**

Add 2nd source for package substrate - KCC. There is no change to the substrate design or construction (see table below):

Items from the CDCQ	Existing Supplier	KCC
a. Substrate material (e.g., FR5, BT, etc.):	Laminate	Laminate
b. Substrate thickness (mm):	0.56	0.56
c. Number of substrate metal layers:	4	4
d. Plating composition of ball solderable surface:	Electrolytic Ni/Au	Electrolytic Ni/Au
e. Panel singulation method:	Punch	Punch
f. Solder ball composition:	96.5Sn/3.0Ag/0.5Cu	96.5Sn/3.0Ag/0.5Cu
g. Solder ball diameter (mils):	23.6mils (0.6mm)	23.6mils (0.6mm)

**Reasons for Change:**

The existing substrate supplier has announced an EOL for PBGA substrates.

**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 on representative products to ensure consistent electrical performance and reliability.

**Effective Date of Change:**

Product shipments using this change will begin after **30-Apr-2023**. 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 substrate **are available**. Please contact your Broadcom Sales Representative by **18-Nov-2022** to reserve your samples.

**Qualification Data:**

The qualification data is included in the table below.

Test	AEC#	Method	Condition	Sample Size	Duration	Result
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, PTC	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; -55°C to 125°C.	3 lots * 77 units/lot = 231 units	1000 cys	0 Fails
HTSL	A6	JESD22-A103	Ta = +150°C	1 lot * 45 units	500 hrs	0 Fails
HTOL	B1	JESD22-A108	Ta = 125°C	1 lot * 77 units	1000 hrs	0 Fails
WBS	C1	AEC-Q100-001	Cpk > 1.67	1 lot * 5 units (30 bonds/each)	-	Cpk>1.67
WBP	C2	MIL-STD-883, Method 2011, Cond. C or D	Cpk > 1.67	1 lot * 5 units (30 bonds/each)	-	Cpk>1.67
SBS	C5	AEC-Q100-010	Cpk > 1.67	3 lots * 10 units/lot = 30 units (5 balls/each)	-	Cpk>1.67

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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**.