

## Product Change Notice

Issue Date: September 4, 2019

**Change Type:**

Addition of a substrate vendor

**Parts Affected:**

BCM56044B0KFSBLG  
 BCM56045B0IFSBLG  
 BCM56046B0IFSBLG  
 BCM56540B0KFSBLG  
 BCM56648KB0KFSBLG  
 BCM56649KB0KFSBLG

**Description and Extent of Change:**

Add Nanya as a substrate supplier (no changes to the material set)

**Reasons for Change:**

Second substrate source to support production volumes

**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 characterization and reliability qualification were performed on representative products to ensure normal parametric distribution, consistent electrical performance, and reliability.

**Effective Date of Change:**

Product shipments using this change will begin after December 5, 2019. Timing of shipment of the changed part will vary by part number depending on qualification completion, customer demand, and inventory levels.

**Qualification Data:**

Qualification data has been generated and approved as shown in table below

<b>Device</b>	BCM5604xKFSBLG
<b>PROCESS TECHNOLOGY</b>	40nm
<b>PACKAGE TYPE</b>	FCBGA+HS, 45x45 mm
<b>FOUNDRY SOURCE</b>	TSMC
<b>ASSEMBLY SOURCE</b>	ASEK
<b>SUBSTRATE SOURCE</b>	Nanya

TEST	SPEC	Conditions	Sample Size	Read point (hrs/cycles ~)	Results
Preconditioning	JESD22-A113 J-STD-020	MSL Level 3 (30°C, 60%RH)	154	192 Hrs	Pass
uHAST	JESD22-A118	130°C, 85% RH, No bias (pre-con parts)	77	96 Hrs	Pass
TC	JESD22-A104	-55°C to 125°C air to air (pre-con parts)	77	500 cycles	Pass
				1000 cycles	Pass
HTSL	JESD22-A103	Ta= 150°C.	77	500 Hrs	Pass
				1000 Hrs	Pass



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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.