



PCN: V16-003-497078-0A

Product Change Notice

Issue Date: 23 September 2016

Change Type:

Implementation of alternate substrate materials, including core, prepreg and soldermask.

Parts Affected:

Product Family	Material Number
PCI Express to PCI-X Reversible Bridge 256 LBGA, Pb Free	PEX8114-BC13BI G PEX8114-BD13BI G

Reason for Change:

Because of production inefficiencies due to extended lead times for substrate raw materials that are in low demand, the substrate supplier for the two affected PEX8114 products will be transitioning to new core, prepreg and soldermask materials. This is summarized in the table below:

	Core	PrePreg	Soldermask
Current	CCL-HL832	GHPL-830	AUS303
New	CCL-HL832NX	GHPL-830NX	AUS308

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

Fit, function, quality and reliability will not be affected by this change. The device specification will remain the same, which will ensure product electrical performance remains the same.

Effective Date of Change:

March 2017

Broadcom may ship product using either current or new substrate materials after this effective date until the existing inventory of current substrates are consumed. Substrate vintage will be tracked by the assembly lot marking on the part.

Sample Availability:

Upon request

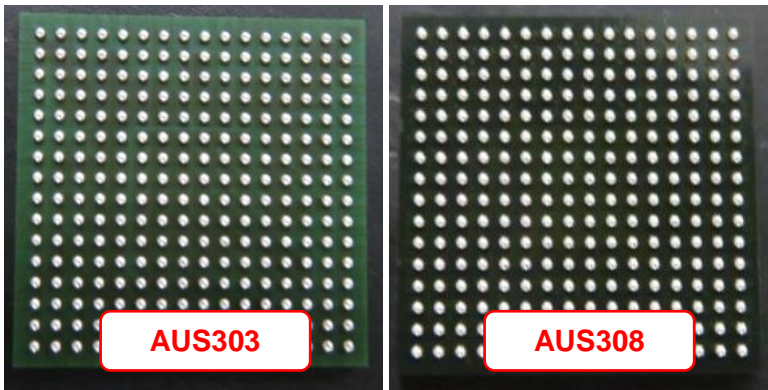
Product Comparison:

The table below provides a material property comparison:

		PEX8114 (Current Substrate)	PEX8114 (New Substrate)
Core Material		HL832	HL832NX
	Dielectric Constant (1GHz):	4.3	4.9
	Loss Tangent (1GHz)	0.016	0.011
Solder Mask		AUS303	AUS308
	Dielectric Constant (1GHz) :	3.4	3.9
	Loss Tangent (1GHz):	0.016	0.029

The individual layer thickness and overall thickness will remain unchanged.

Due to the change from AU3303 to AUS308, the soldermask will have a slightly darker appearance as shown below:



Qualification Data:

Broadcom has favorable reference reliability data of products using the same proposed core, prepreg and soldermask materials available upon request.

These changes have been reviewed and approved by Broadcom Limited engineers and managers per Broadcom Limited procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Broadcom Limited field sales engineer or Contact Center (<http://www.avagotech.com/contact/>) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.