

Product Change Notice

Issue Date: 11th July 2012

Change Type:

Assembly related: Change of plated leadframe material.

Part Numbers:

Refer to Appendix A.

Description and Extent of Change:


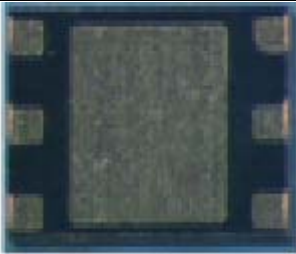


Avago is qualifying a new plated leadframe material (Ni Pd Au) for UQFN packages (2 X1.3 X0.4 mm)

Reasons for Change:

The change is to standardize the plating material for all UQFN packages due to the discontinuance of the present plating material supply in the near future.

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

All affected products will be manufactured according to the same electrical specification, but there will be a minor mechanical change to the external form and fit. There will be no change to function, footprint, quality and reliability of the final product. The minor mechanical difference on the ground pad can be seen in the picture below and the drawing in Appendix B. This is a drop-in design to the current package - there is no change required for the stencil design using the new footprint.

	Existing Unit	New Unit
Bottom View		
Top View		
Plating material	Au Ni Au	Ni Pd Au

These changes have been reviewed and approved by Avago Technologies engineers and managers per Avago Technologies procedure: Change Control and Customer Notification, A-5962-6052-80, 5957-0258-80 and 971-5507-82

Please contact your Avago Technologies 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.



Effective Date of Change:

Product shipments with this change will begin on or around September 2012. Timing of shipments with the new lead frame will vary by part number, and may be spread out over a 6 month period.

Qualification Data:

Qualification has been completed on the MGA-231T6; all stress tests passed. Please refer to Appendix C for details.

Samples are available for customer's evaluation per the table below:

Part number	MGA-231T6	MGA-635T6	MGA-675T6	MGA-685T6	MGA-785T6
Availability	Yes	Upon request	Upon request	Upon request	Upon request

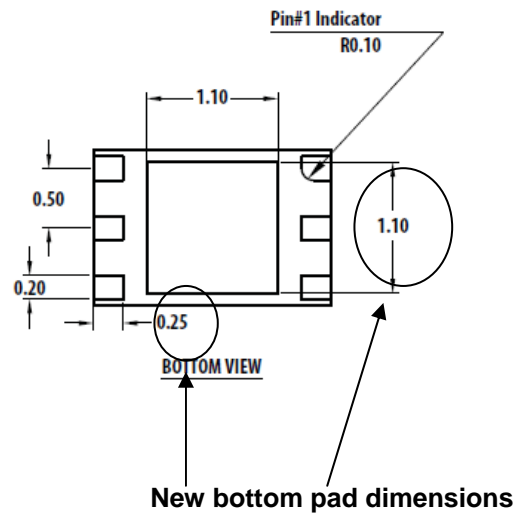
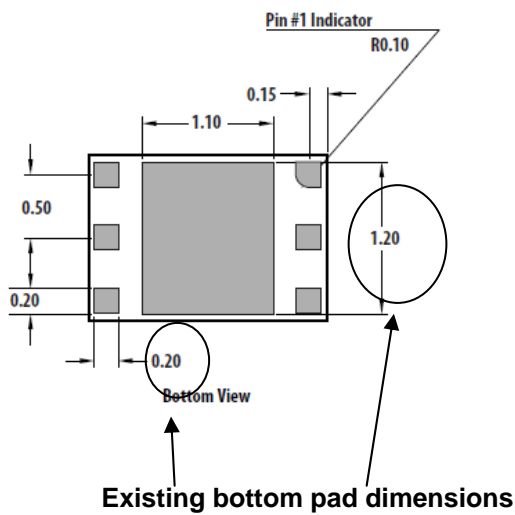
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APPENDIX A

MGA-231T6-QC1/TR1G/SC1/BLKG/SC2/SE1/TR2G
MGA-635T6-TR1G/BLKG/TR2G
MGA-675T6-BLKG/TR1G/TR2G
MGA-685T6-BLKG/TR1G/TR2G
MGA-785T6-BLKG/TR1G/TR2G
QMGA-23T6-BLKG/TR1G/TR2G
QMGA-931T6-TR1G
QMGA-21T6-BLKG/TR1G/TR2G

APPENDIX B



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APPENDIX C

Qualification Report for

UQFN Lead Frame

(PCN: ??)

Avago Technologies P/Ns:

MGA-231T6, MGA-635T6, MGA-645T6, MGA-655T6, MGA-675T6, MGA-685T6, MGA-785T6

Qualification Results:

All devices (except ESD & solderability) are subjected to MSL1 preconditioning (JESD22-A113) prior to each stress test condition shown in table below:

24hrs HTSL 125°C + 168hrs WHTS 85°C/85%RH + 3x Pb Free reflow 260°C peak

Stress Test	Stress Condition	Duration	Number of Devices	Results
MSL1 verification	24hrs HTSL 125°C + 168hrs WHTS 85°C/85%RH + 3x Pb Free reflow 260°C peak	After 3x reflow	75pcs	Passed
TMCL (Temperature Cycling)	-55/125°C, 15 minutes dwell	500x	75pcs	Passed
TMSK (Thermal Shock)	-65/150°C, 5 minutes dwell	500x	75pcs	Passed
WHTS (Wet High Temperature Storage)	85°C/85%RH	500 hrs	75pcs	Passed
ESD	MM	50V	9pcs	Passed
	HBM	250V	9pcs	Passed
Solderability	Steam age 1 hour, lead free 245C, 5 sec	1x	66pcs	Passed

Qualification Vehicle

MGA-231T6

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