



**PCN: V09-006-SD475420-0A**

## **Product Change Notice**

**Issue Date: 11 January 2010**

### **Change Type:**

MAJOR CHANGE

Please be advised that Avago Technologies is making the following product change on the effective date noted for the products listed below:

1. Assembly Related Change: New LED Die source.
2. Mark and Pack Related Change: Encapsulant material.

### **Parts Affected:**

The categories of products affected by the change are:

1. PLCC 2 LED of InGaN Family. Details in Appendix section
2. PLCC 4 LED of InGaN, Bicolor and Tricolor Family. Details in Appendix section

### **Description and Extent of Change:**

1. For part numbers listed in Appendix I, selected new LED dice source shall be replacing current supply while the product encapsulant material will be changed from epoxy to silicone.
2. For part numbers listed in Appendix II, selected new LED dice source shall be replacing current supply.

### **Reasons for Change:**

1. Ongoing product improvement program.
2. To ensure consistency of supply and on-time delivery to customer.

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

There is no change on fit and function. There will be change in form due to the change of new LED dice source, new phosphor and change of encapsulant from epoxy to silicone.

Existing Part	New Part
Existing LED dice source is single wire bonding	New LED dice source will have dual wire bonding
Existing Part is with epoxy encapsulant	New Part is with silicone encapsulant

Customer is advised to review the Handling Precautions to ensure they are meeting Avago recommended application condition (Application note 5288 and Application note 1142). Application Note applicable for existing and new part as below:

Existing Part	New Part
Application Note - AN 5305, Handling Moisture Sensitive Surface Mount LED	Application Note - AN 5305, Handling Moisture Sensitive Surface Mount LED
Application Note - AN 1060: Surface Mounting SMT LED Indicator Components	Application Note - AN 1060: Surface Mounting SMT LED Indicator Components
	Application Note - AN 5288, Silicone Encapsulation for LED, Advantages and Handling Precautions
	Application Note - AN 1142: Premium InGaN LEDs Safety Handling Fundamentals ESD (Electrostatic Discharge)

**Effective Date of Change:**

Avago Technologies will begin to ship both new and existing part effective 11 February 2010 onwards. There may be mixed shipments between new and existing part until the current inventory is fully depleted.

### Parts identification:

(i) New Parts will be indicated by a Black Dot on label indicated below.



### Qualification Data:

Test	Reference	Sample Size	Result
Temperature Cycling -55/100°C 15/5/15min	Avago Req	600	Pass 1000cyc
High Humidity Storage Life 85°C / 85%RH	Avago Req	336	pass 1000hrs
High Humidity Operating Life 85°C / 85%RH, 12mA	JESD22-A101	336	pass 1000hrs
High Temperature Operating Life 55°C , 20mA	JESD22-A108	336	pass 1000hrs
Room Temperature Operating Life 25°C , 30mA	Avago Req	336	pass 1000hrs
Temperature Humidity Power Cycle 25/65°C, 95%RH , 3 6 3 hrs, 8mA, 5 mins on/off	Avago Req	336	pass 100cyc

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.

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.

## Appendix I

Affected Part Number	Part Description	Change Of	
		LED Dice Source	Encapsulant from epoxy to silicone
HSMM-A101-R00H1	PLCC2,Top Mt,InGaN,Grn	Yes	Yes
HSMN-A101-N00J1	PLCC2,Top Mt,InGaN,Blue	Yes	Yes
QSMM-A135-R00J1	PLCC2,Top Mt,InGaN,Grn	Yes	Yes
HSMF-A341-A00J1	PLCC4,Top Mt,Triclr,Red/Grn/Blue	Yes	Yes
HSMM-A101-R00J1	PLCC2,Top Mt,InGaN,Grn	Yes	Yes
HSMN-A101-P00H1	PLCC2,Top Mt,InGaN,Blue	Yes	Yes
HSMN-A161-N00J1	PLCC2,Top Mt,Black, InGaN,Blue	Yes	Yes
HSMN-A101-P00J1	PLCC2,Top Mt,InGaN,Blue	Yes	Yes
HSMM-A101-S00J1	PLCC2,Top Mt,InGaN,Grn	Yes	Yes

## Appendix II

Affected Part Number	Part Description	Change Of	
		LED Dice Source	Encapsulant from epoxy to silicone
HSMN-A461-T4QM2	PLCC4,PWR,T/Mt,60VA,InGaN,Blue	Yes	No