

PCN-269233

# **Product Change Notice**

Issue Date: 25-September-2023

## **Change Description:**

To introduce new red die source for part number listed below

## **Parts Affected:**

ASMT-YTB7-0AA02	ASMT-YTC7-0BA02	QSMT-YTB7-ZDA02	QSMT-YTD7-0CB22
ASMT-YTB7-0DA02	ASMT-YTD7-0AA02	QSMT-YTB7-ZDA0B	QSMT-YTD7-ZDA02
ASMT-YTB7-ZAA02	ASMT-YTD7-0DA02	QSMT-YTB7-ZZZ02	Q2MT-YTD7-ZAA02
ASMT-YTC7-0AA02	ASMT-YTD7-ZAA02	QSMT-YTD7-0AA0A	Q3MT-YTD7-ZDA02

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

The new red die shall be replacing the current red die for the part numbers listed above. The new red die have higher typical forward voltage and higher luminous intensity range but no change in product's fit and form.

#### **Reasons for Change:**

Assurance of supply

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

There is no change in product's fit and form. Luminous intensity of Red die (except for part number QSMT-YTD7-0CB22) will be increased as illustrated below:

# YTB7-xxxxx / YTD7-xxxxx

	Current		New	
	Bin	Luminous Intensity @ 20mA	Bin	Luminous Intensity @ 20mA
	U2	560 – 715mcd	V1	715 – 900mcd
Red	V1	715 – 900mcd	V2	900 – 1125mcd
	V2	900 – 1125mcd	W1	1125 – 1400mcd

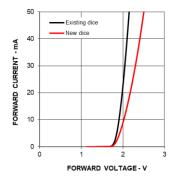
#### YTC7-xxxxx

	Current		New	
	Bin	Luminous Intensity @ 20mA	Bin	Luminous Intensity @ 20mA
	S2	224 – 285mcd	T2	355 – 450mcd
Red	T1	285 – 355mcd	U1	450 – 560mcd
	T2	355 – 450mcd	U2	560 – 715mcd



The forward voltage vs forward current is different between the new and current die as illustrated below.

	Current	New
Typical Vf @ 20mA	2.1V	2.2V



### **Effective Date of Change:**

The shipment with above change will commence 90 days after issuance date above.

Broadcom will continue ship parts with current red die source after implementation date until inventories are fully depleted.

Customer is advised not to mix the product using new red die with product using current red die source.

### Parts Identification:

PCN number identification will be printed on the mother label to identify the lot has changed to new material as indicated below.





# **Qualification Data:**

Test Name	Reference	Test Conditions		Units Failed
High Temperature Operating Life	n Temperature Operating Life JESD22-A108 TA = 85°C (3 chip on)		56	0
		AllnGaP: IF = 17 mA for 1000 hours		
		InGaN: IF = 10 mA for 1000 hours		
Low Temperature Operating Life JESD22-A108 TA = -		TA = -40°C (3 chip on)	56	0
		AllnGaP: IF = 50 mA for 1000 hours		
		InGaN: IF = 25 mA for 1000 hours		
Temperature Humidity Operating Life	JEITA ED-	TA = 60°C, 90% RH (3 chip on)	56	0
	4701/100 102	AllnGaP: IF = 33 mA for 500 hours		
		InGaN: IF = 20 mA for 500 hours		
Temperature Cycle	JESD22-A104	-40°/100°C, 30-minute dwell, 5-minute transfer, 100 cycles	336	0
Temperature Humidity Storage Life	JEITA ED- 4701/ 100 103	Ta = 60°C, 90% RH for 1000 hours	56	0
Pulse Test	JESD22-A108	TA = 25°C, Frequency = 1 kHz, Peak Current = 100 mA,	56	0
		Duty factor = 10% for 1000 hours		