

PCN: V20-001-00475504-OA

Product Change Notice

Issue Date: 16th September 2020

Change Type

Improvement of Integrated Circuit (IC)

Parts Affected:

Part Number
APDS-9250

The improved IC shall replace the existing IC for the part number listed above.

Reasons for Change:

Improve in RGB performance by filtering away the excess IR signal in RGB channel so to improve lux accuracy.

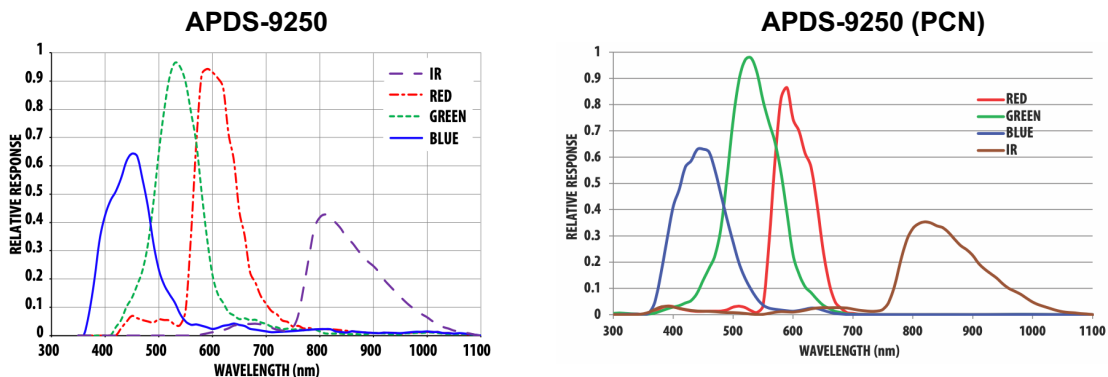
Effect of Change on Fit, Form, Function, Quality, or Reliability:

Reliability qualification has been performed on representative products.

There is an updated APDS-9250 Datasheet.

The main differences are as illustrated below:

- a) Spectral Response: Reject more unwanted IR contents in the light source



- b) Due to the spectral response change, customer is advised to check the R G B and IR output under the cover glass used in their application. This data can be used to re-generate the 3x3 matrix to improve calculation accuracy. For more information on this please refer to APDS-9250 RGB sensor Application Guide Rev1.

c) Part ID change from B2HEX to B5HEX

Effective Date of Change:

This change will be effective from Date Code 2051 onwards. Timing of shipment of the changed part will vary by part number depending on customer demand and inventory levels.

Qualification Data:

The reliability data is shown below.

Test Name	Test Conditions	Duration	Units Tested	Results
Pre-condition	1. Soak samples for 192 hrs at 30°C/ 60%RH (for MSL level 3) 2. 3x convection reflow at 260°C 3. 5 T/C at -40/100°C	192 hrs	553	0 failure
High Temperature Operating Life	Ta= 85°C, Vcc = 3.6 V	500 hours	231	0 failure
Temperature Cycle	-40°C to 100°C: 15 minutes dwell, 5 minutes transfer.	200 cycles	154	0 failure
Temperature Humidity Bias	85°C / 85 %RH, Vcc = 3.6 V	500 hours	112	0 failure
Low Temperature Operating Life	Ta= - 40°C, Vcc = 3.6 V	500 hours	56	0 failure
High Temperature Storage Life	125°C	500 hours	77	0 failure

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.