



**PCN: V13-003-00475504-OA**

## **Product Change Notice**

**Issue Date: 8 March 2013**

### **Change Type:**

- 1) Standardize a single PCB supplier.
- 2) Standardize the soldermask layout.

### **Parts Affected:**

All devices in APDS-9900 and APDS-9930 platforms

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

- 1) Standardize to single PCB supplier, with an accompanying change on the PCB substrate.
- 2) Standardization of the PCB layout (bottom side of the PCB)

### **Reasons for Change:**

This helps to reduce the PCB design variation by having the same supplier and design layout.

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

The product specifications will remain the same. Appropriate electrical characterization and reliability qualification has been performed on representative products to insure normal parametric distribution, consistent electrical performance, and reliability.

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

This change will be effective from datecode D/C 1314 onwards. Timing of shipment of the changed part will vary by part number depending on customer demand and inventory levels.

The photos below shows the exterior package of the current devices produced in Thailand and Taiwan with comparison to the new PCB.

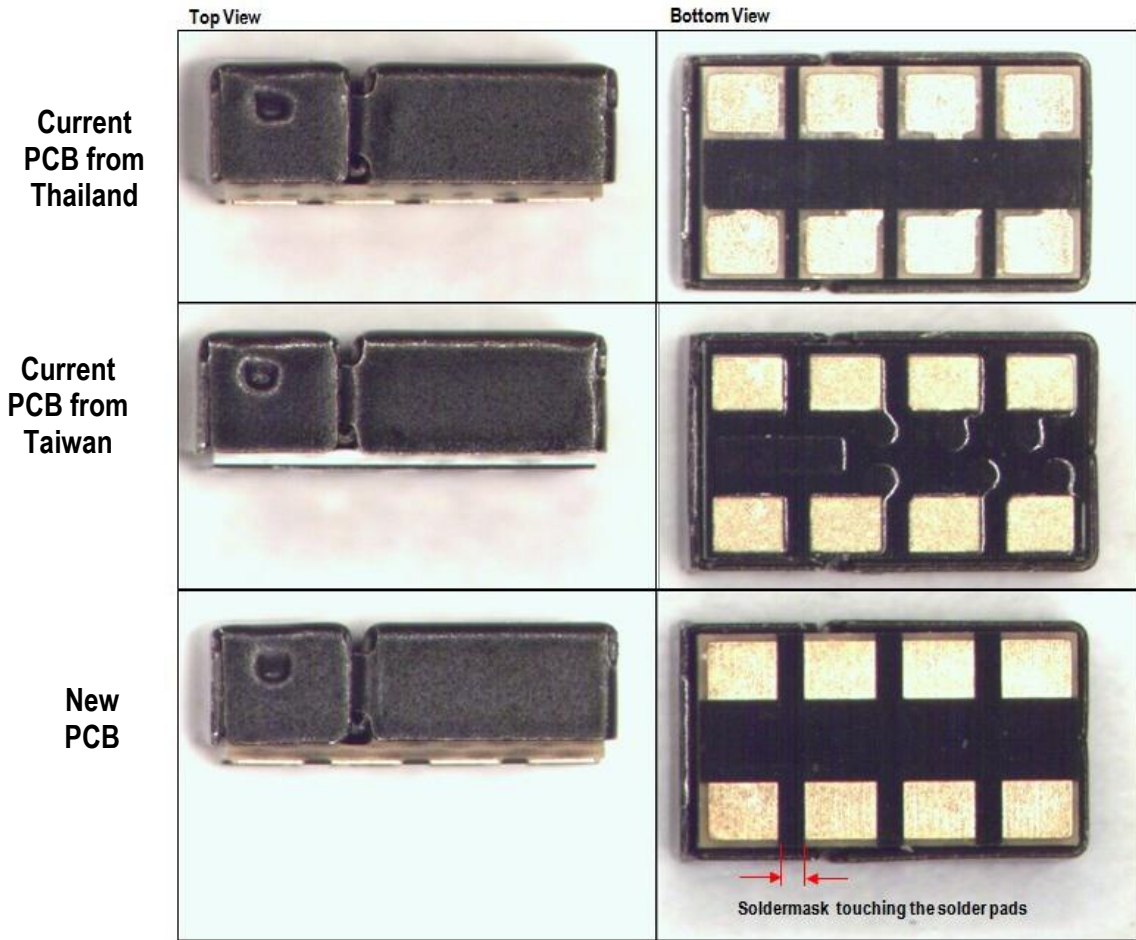


Figure 1: Comparison of the current PCBs used in Thailand and Taiwan and the new PCB

The change does not affect the size and dimension of the package. There is no change to the datasheet.

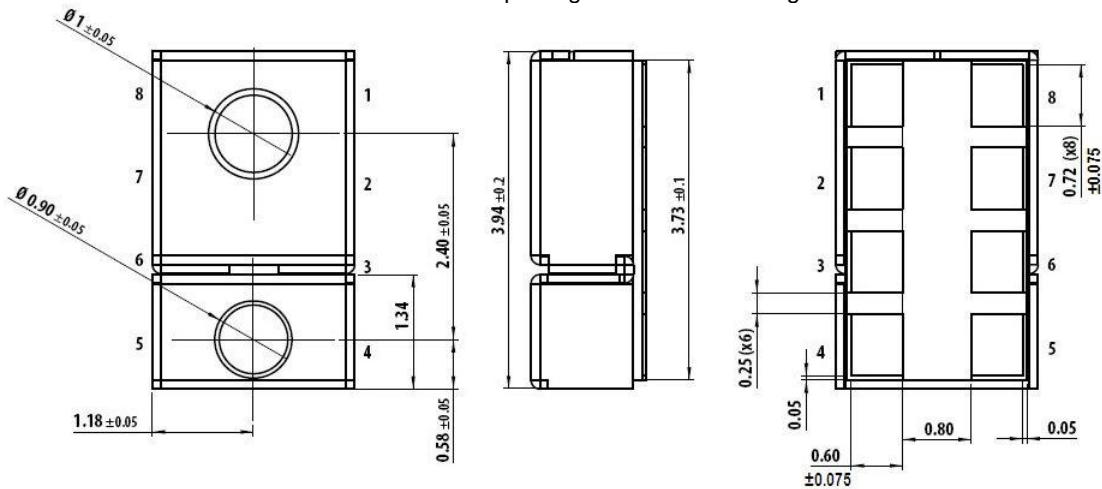


Figure 2: Physical dimension of the package (in mm). An extract from product datasheet.

Qualification data with the new PCB is attached 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	192hrs	770	Passed
Temperature Cycle	-40°C to 100°C: 15 minutes dwell, 5 minutes transfer.	200 cyc	77	Passed
Temperature Humidity Bias	85°C / 85 %RH, Vcc = 3.6 V, Vled = 5 V	500hrs	56	Passed
High Temperature Storage Life	85°C	500hrs	77	Passed
Low Temperature Operating Life	Ta= - 40°C, Vcc = 3.6 V, Vled = 5 V	500hrs	154	Passed
High Temperature Operating Life	Ta= 85°C, Vcc = 3.6 V, Vled = 5 V	500hrs	231	Passed

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.