

MODIFICATION RECOMMENDED –  
CORRECTS MANUFACTURING OR DESIGN DEFECTS

**E4419B-19A**

**S E R V I C E N O T E**

Supersedes:

**Agilent E4418/19 EPM Peak & Average Power Meter**

**Serial Numbers: E4418B MY45101739 & E4419B MY45100754 onwards products without (U11) Intersil component**

**Hot plugging problem Caused by Intersil component part number – MPN DG411DY**

**To Be Performed By: Agilent-Qualified Personnel or Customer**

**Parts Required:**  
P/N

**Description**

**Qty.**

E4418-60003 Analog switches (U11) under the measurement card 1

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 0.5 Hours	
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY: <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT	USED PARTS: <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: 1 <sup>st</sup> April 2009 for All Warranty Unit.	
AUTHOR: Alvin	PRODUCT LINE: WC		
ADDITIONAL INFORMATION:			

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**Situation:**

This problem happened on power meter, E441x when the front panel power Off/On switch turned on first and direct plug out the power cord from the meter and on it back. Then the power meter will be hung up from time to time and an error message will be displayed and shown in figure 3 below. To get the power meter in operation mode again the system operator needs to manually PRESET the power meter.

***Detection Mode:***

From the studies has been found that only the component supplied from **Intersil** brand is contributed to hot plugging problem. This analog switch component with part number DG411DY printed on the IC component indicating it is Intersil brand.

The problematic measurement board will be shown no sensor in figure 3. Mean time, the function/good measurement board would show sensor detected in figure 4 below.

**Solution/Action:**

This Service Notes is to guide engineer on how to troubleshoot the hot plugging issue on the measurement board for E4418/19 power meter. This component has been supplied with 3 different suppliers. There are Analog Device, Vishay and Intersil suppliers.

The problematic measurement board will be encouraged to be replaced by good measurement board which consists **without** of (U11) analog switch component of Intersil brand (marked with DG411DY) and shown in figure 2 below.

***Confirmation Test:***

After replacing the good measurement board used with other brand of Intersil component. Direct power off and on back the power meter while front panel power switch “on” first from power meter. The result will indicate there is a sensor detected and shown in figure 4 below.

1.) This is a measurement board, E4418-60003 or A3 shown in figure 1.

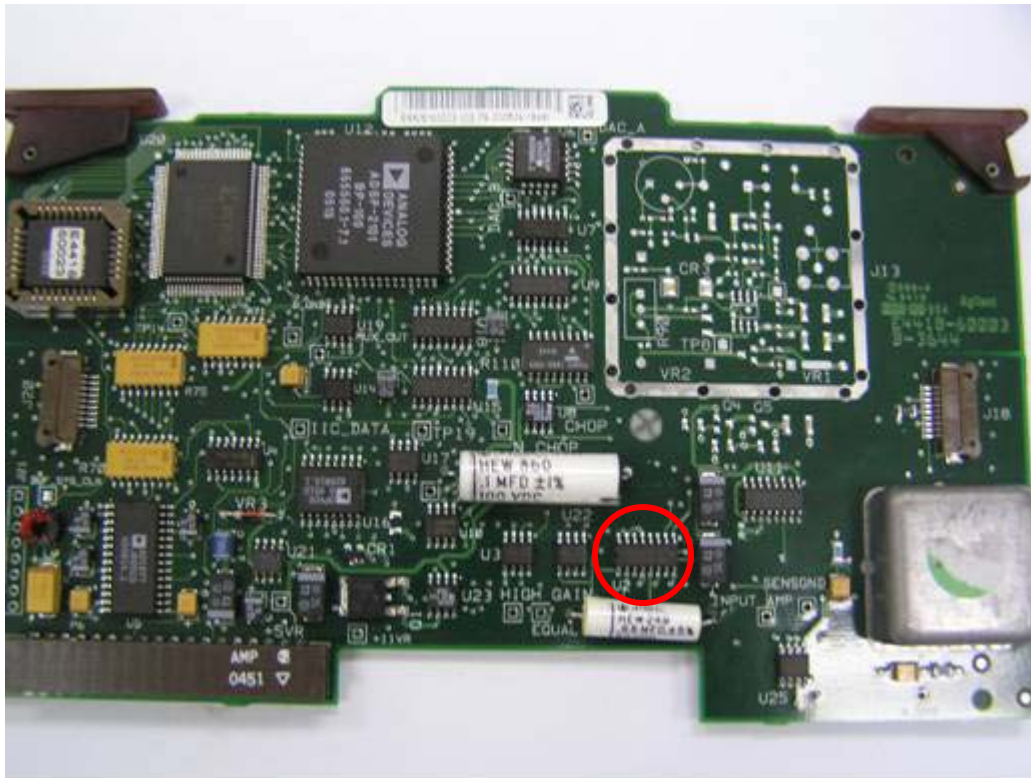
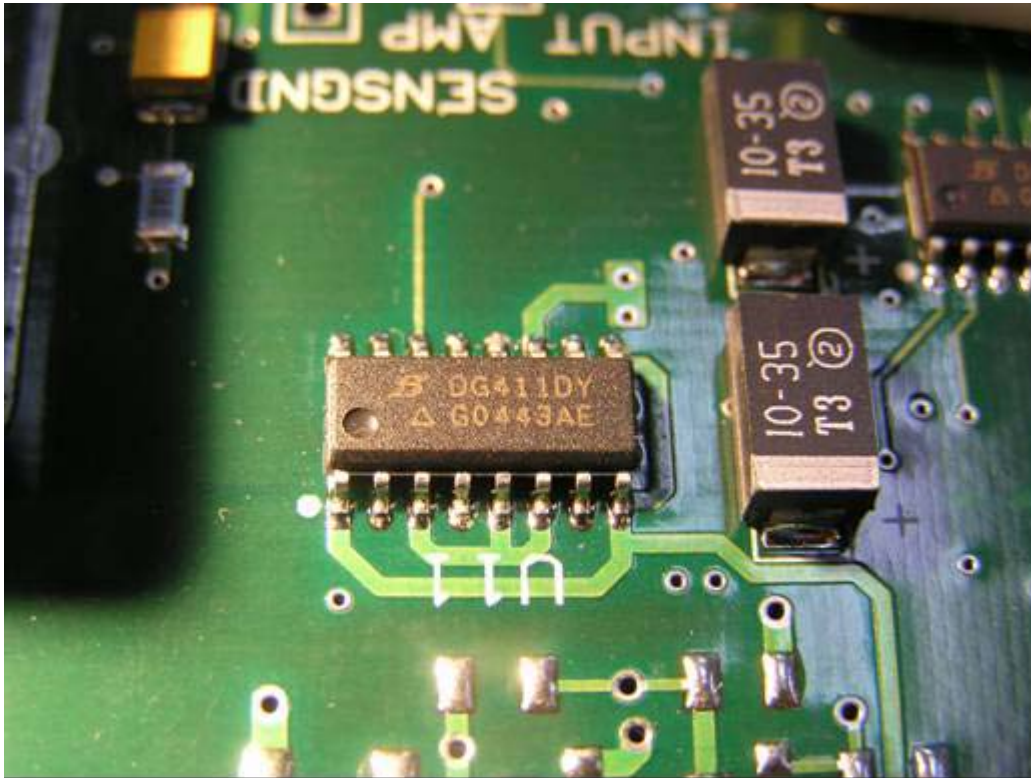


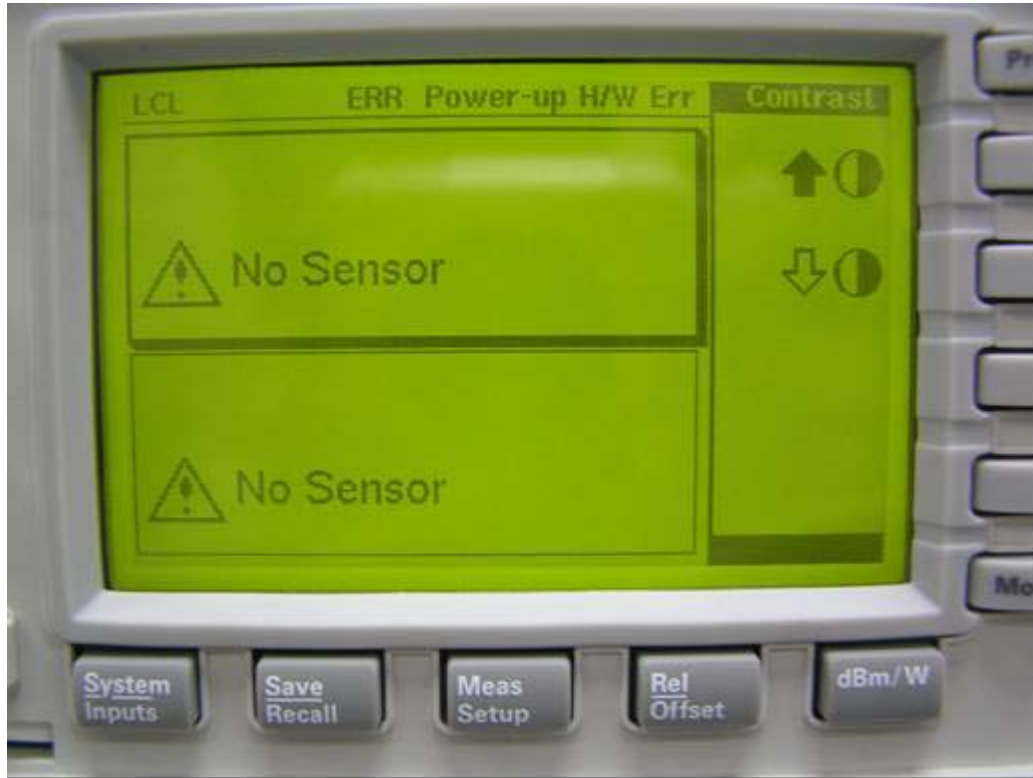
Fig 1: Measurement Board, A3

- 2.) The figure 2 will be zooming to measurement board, A3 with Intersil supplier (U11) analog switch component.



**Fig 2: Intersil Component, DG411DY**

### 3.) Hardware Power Up Error or No Sensor Detected



**Figure 3: No Sensor Detected while  
Sensor is connecting**

#### 4.) Sensor Detected with Good Measurement Board



**Fig 4: Good Measurement Board with Sensor Detected**

### CAUTION

- Do not dismantle the front panel.
- Do not touch the 1mW reference.
- Once the front panel is dismantled or 1mW is affected, service and calibration are needed.
- Information about verification of 1mW is documented in service guide.

