E4418B-20

S E R V I C E N O T E

Supersedes:
NONE

Agilent E4418B EPM Power Meter

Serial Numbers: MY00000000 – MY99999999

Hot plugging problem caused by analog switches (U11) under the measurement board assembly (E4418-60007)

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
E4418-60007	GTLS E4418-60003	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **MODIFICATION RECOMMENDED**			
ACTION CATEGORY: :	[ ] IMMEDIATELY X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS LABOR: 1.0 Hours	
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE X SERVICE CENTER	SERVICE INVENTORY:	[ ] RETURN X SCRAP [ ] SEE TEXT
		USED PARTS:	[ ] RETURN X SCRAP [ ] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL:	1st of April 2009
AUTHOR: LCH		PRODUCT LINE: WC	
ADDITIONAL INFORMATION:			

Agilent Technologies

Situation:
This problem happened on power meter E4418/19B where the power meter will be hang up from time to time and an error message will be displayed. This problem can be duplicated by performing the following steps:

1. Power On the power meter.
2. Connect a power sensor to the power meter.
3. With the power meter still powered, directly unplug the power cord from the power meter.
4. When power cord is plugged back to the power meter, error message will appear in the front display of the power meter as shown in Figure 1.
5. To get the power meter in operation mode again, manually press PRESET button on the power meter's front panel.

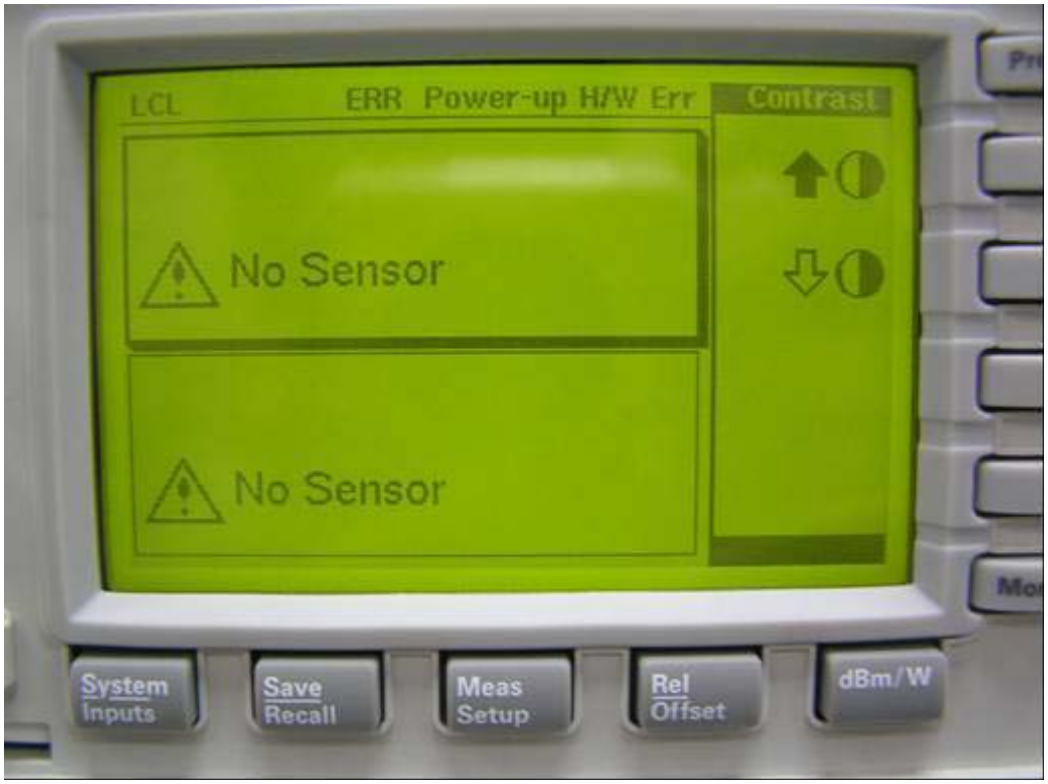

Figure 1: No sensor is detected while sensor is connected

Detection Mode:
It has been found that analog switch (U11) is causing the hot plugging problem. There are 3 different suppliers who are supplying this part: Analog Device, Vishay and Intersil suppliers. The analog switch supplied by Vishay was found to be contributing to the hot plugging problem. It was a batch related issue that happened in 2005. Current parts do not have this failure.

Solution/Action:
Replace the problematic measurement board with a good measurement board. After replacing the measurement board, repeat the steps mentioned above to verify that the problem is resolved. It should indicate that sensor is connected even after hot plugging.

Figure 2: 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.