

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

E4417A-04

S E R V I C E N O T E

Supersedes:
NONE

Agilent E4417A EPM Peak & Average Power Meter

Serial Numbers: GB41290813/GB41290870

Latent Defect Causes Calibrator To Fail Built In Self Test

To Be Performed By: Agilent-Qualified Personnel or Customer

Parts Required:

| P/N | Description | Qty. |
|-------------|----------------------|-------------|
| E4416-60001 | Processor Board Assy | 1 |

ADMINISTRATIVE INFORMATION

| | | | |
|--|--|--|---|
| SERVICE NOTE CLASSIFICATION: | | | |
| MODIFICATION RECOMMENDED | | | |
| ACTION CATEGORY: | <input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME | STANDARDS: | LABOR: 1.0 Hours |
| LOCATION CATEGORY: | <input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER | SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT | USED PARTS: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT |
| AVAILABILITY: | PRODUCT'S SUPPORT LIFE | AGILENT RESPONSIBLE UNTIL: 20-Feb-2005 | |
| AUTHOR: FC PRODUCT LINE: PN | | | |
| ADDITIONAL INFORMATION: Service Inventory has been inspected and is unaffected. Service Centers will return Used Parts via the standard BOP process. | | | |

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Situation:

A batch defect with component Q11 on the Processor Board assembly has been identified. This component is a transistor within the power reference oscillator circuit.

If a Processor Board assembly has been fitted with a defective Q11, it will fail the built in self test (BIST), highlighting an issue with the "Calibrator" test.

Important note - as BIST is an integral part of the manufacturing test strategy, Agilent is confident that no units have been knowingly shipped with this defect. Although there is no evidence to suggest that the defect may manifest itself at some later date, this service note has been created to cover such a possibility.

Solution/Action:

If any of the units listed above are received at the service center and are exhibiting this fault, then perform the following procedure:

- Remove and replace the Processor Board. Details of this procedure can be found in the Service Manual.
- Update the details stored on the Processor Board to reflect the identity of the power meter.
The following SCPI command stores the power meter serial number:
SERV:SNUM GB4129xxxx (replace xxxx with the correct value)
The following SCPI command stores the power meter installed options:
SERV:OPT "xxx" (replace xxx with the correct value, or leave blank)
- Ensure the Processor Board is programmed with the current firmware revision. The firmware and a PC based download utility are available as no-charge downloads from the 'Agilent.com' website. The following URL provides a shortcut to the power meter & sensor product pages:
<http://www.agilent.com/find/powermeters>
- Verify that all of the Built In Self Test tests pass.
- Verify that the 1mW reference power level meets the published specification. Details of this procedure can be found in the Service Manual.
- The repair and verification process is now complete.