

E8267D-13

S E R V I C E N O T E

Supersedes:
None

E8267D PSG Vector Signal Generator

Serial Numbers: US45160396/US4722000

Spurs and poor image rejection in wide band IQ mode (option H16 & 016).

To Be Performed By: Agilent-Qualified Personnel or Customer

Parts Required:

| P/N | Description | Qty. |
|-----------|-----------------------|------|
| 8121-1616 | Cable | 4 |
| 8121-1618 | Cable | 2 |
| 8121-1667 | Cable | 4 |
| 1250-1666 | SMA Bulk Head Adapter | 4 |

ADMINISTRATIVE INFORMATION

| | | |
|-----------------------------------|--|---|
| SERVICE NOTE CLASSIFICATION: | | |
| MODIFICATION AVAILABLE | | |
| ACTION CATEGORY: | AGREEABLE TIME | x PERFORMANCE ENHANCEMENT <input type="checkbox"/> SERVICE / RELIABILITY ENHANCEMENT |
| LOCATION CATEGORY: | x CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE x SERVICE CENTER | AVAILABILITY: Through July 1, 2008 |
| AUTHOR: DMc PRODUCT LINE: PL15 | | |
| ADDITIONAL INFORMATION: | | |

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Situation:

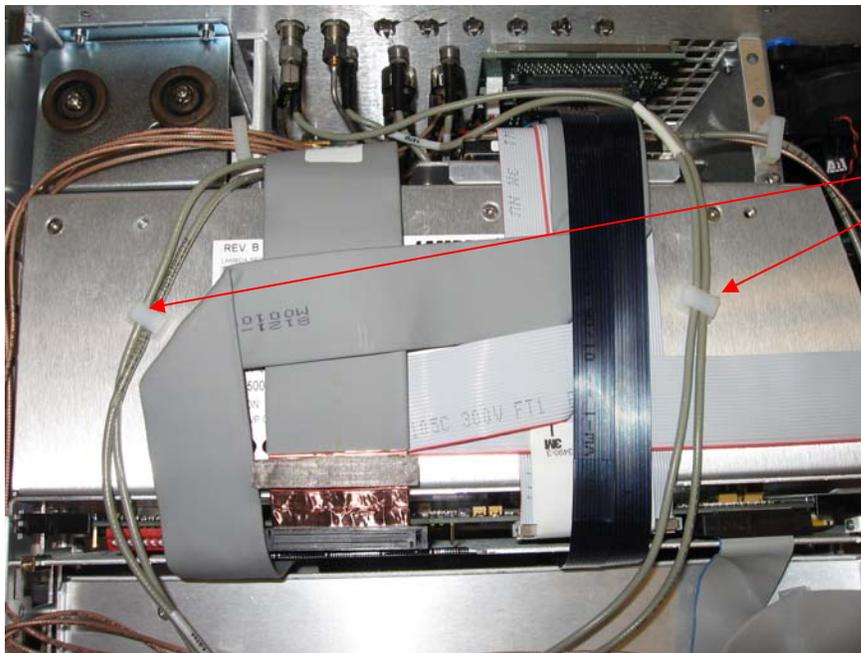
E8267D instruments with option H16 or 016 may have spurs and poor image rejection when wide band IQ mode is being used. The spurs and poor image rejection may be caused by mismatched cables in the wide band IQ path.

Solution/Action:For customers reporting problems with spurs and poor image rejection in wide band IQ mode replace the following cables and install the new bulkhead adapters.

Note: Replacement cables are not labeled with the cable (rings) numbers. You may want to remove the rings from the old cables or install a paper label on the replacement cable with the cable part number.

1. Remove the external and internal covers. See service guide for process to remove and reinstall covers.
2. Remove from the rear panel the wide band input cables I, I bar, Q, Q bar (W123-125) from the rear panel and from A13 IQ MUX. Note the routing so the new cables can be routed the same way.
3. Install the 4 SMA bulkhead adapters 1250-1666 into the rear panel in place of the cables.
4. Connect the 4 new 8121-1667 cables to the rear panel adapters, route the cables the same as the old cables were routed and connect the other ends to the A13 IQ MUX according to the following:

| Rear panel connection | A13 MUX connection | Cable Numbers |
|-----------------------|--------------------|---------------|
| a. I in | J19 | 0/1/5 |
| b. I Bar in | J20 | 0/1/6 |
| c. Q in | J15 | 0/1/1 |
| d. Q Bar in | J16 | 0/1/2 |



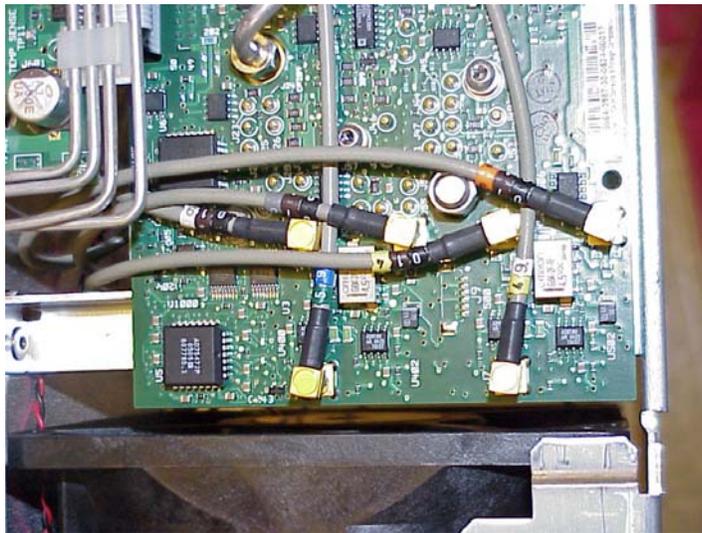
Routing and clips

5. Remove the following 2 cables (W131–132) and install the 2 new 8121-1618 to the A13 IQ MUX and A8 Low Band assembly. Note the routing so the new cables can be routed the same way.

| A13 IQ MUX connection | A31 Mother Board connection | Cable Numbers |
|-----------------------|-----------------------------|---------------|
| a. I Mod = J9 | J1053 | 4/5 |
| b. Q Mod = J10 | J1052 | 4/6 |

6. Remove the following 4 cables and install the 4 new 8121-1616 cables to the A13 IQ MUX and to the A35 IQ Modulator according to the following table:

| A13 IQ MUX connection | A35 IQ Modulator connection | Cable Numbers |
|-----------------------|-----------------------------|---------------|
| a. I = J22 | J106 | 0/1/9 |
| b. I Bar = J21 | J108 | 0/1/8 |
| c. Q = J18 | J107 | 0/1/3 |
| d. Q Bar = J17 | J109 | 0/1/4 |



7. Make the following adjustments
 - a. RF Timing Skew Calibration
 - b. IQ Cal (Press I/Q, I/Q Calibration, Calibration Type (Full), Execute Cal)
8. Do the following performance tests.
 - a. EVM and IQ Offset

Estimated Labor Times:

Assembly: 2 hrs

Adjustment and performance test: 2 hrs