

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

E5061A-03A

S E R V I C E N O T E

Supersedes:
E5061A-03

E5061A ENA-L RF Network Analyzer, 300 kHz to 1.5 GHz

Serial Numbers: JP1KLxxxxx,
MY44100102 to MY44100335, MY44100338 to MY44100342,
MY44100344 to MY44100347,
MY44100349, MY44100352, MY44100361, MY44100362, MY44100365,
MY44100366, MY44100370, MY44100374,
MY44100377 to MY44100826

A1 source board failure due to external DC voltage transient

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
E5062-69101	A1 Source Board	1
or		
E5062-69111	A1 Source Board	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: 2.0 Hours	
LOCATION CATEGORY:	<input 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 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: March 2007		
AUTHOR: jm PRODUCT LINE: WN			
ADDITIONAL INFORMATION:			

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Situation:

The A1 source board of the E5061A with serial numbers listed above might be damaged by external DC voltage transient. If this trouble happens, the power amplifier on the source board is broken and the source output power level becomes about 30 dB lower than the normal level. The trouble is likely to happen in the applications where the DC biased DUTs are directly connected to the E5061A's test port that is internally connected to the power amplifier on the source board.

Solution/Action:

1. Check if the source board trouble is due to the power amplifier failure.
 - 1-1) Set the E5061A stimulus settings to Center=1 GHz, Span=0 Hz, and Source Power=0 dBm.
 - 1-2) Set the E5061A's measurement parameter to S11, and make a single trigger.
 - 1-3) Check the output power level at the E5061A's port-1 with a power meter.
 - 1-4) In the case of the E5061A with option 250/275 (built-in S-parameter test set), set the measurement parameter to S22, make a single trigger, and check the output power level at the port-2, too.
 - 1-5) If the power meter reading is about -30 dBm (about 30 dB lower than the normal level) at either port-1 or port-2, you can determine that the power amplifier on the source board is broken.
(If the power meter reading is incorrect at both port-1 and port-2, it is likely that the cause of the trouble is not the power amplifier failure but other failures.)
2. If you determined that the power amplifier on the source board is broken,
 - 2-1) Replace the A1 source board to the new one. (*)
 - 2-2) Perform the required adjustments and performance tests.

NOTE:

- If the cause of the source board trouble is not above mentioned power amplifier failure but other failures, the repair is not covered with this service note.
- The A1 source board currently provided as the E5061A's service part is the new modified version that has better durability against DC transient than the old version. The source board part number of the new version (E5062-69101, exchange board) is not changed from that of the old version. After the repair is finished, return the defective source board of old version to the part stock, so that it can be modified to the new version at the factory and re-distributed to the field as an exchange board.

(*) When replacing A1 source board to the new one, the priority of the board choice is recommended as follows.

If you have E5062-69101, then use E5062-69101,
else if you have E5062-69111, then use E5062-69111,
(and else use E5062-62111.)

This priority is set at the timing of E5062-62101 obsolescence.