E5052A-06

S E R V I C E N O T E

Supersedes:
NONE

E5052A Signal Source Analyzer

Serial Numbers: JP1KL00001 to JP1KL00007, MY44100053 to MY44200610, SG44100101 to SG44100102

When step attenuator on A1 board fails, replace with A1 board.

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
E5052-62101	A1 FREQ/POWER DETECTOR MODULE	1
or		
E5052-69101	RSTRD E5052-62101 FRQ/POWER	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **MODIFICATION RECOMMENDED**			
ACTION CATEGORY:	[ ] IMMEDIATELY X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS: LABOR: 8.5 Hours	
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE X SERVICE CENTER	SERVICE INVENTORY: [ ] RETURN [ ] SCRAP [ ] SEE TEXT	USED PARTS: [ ] RETURN X SCRAP [ ] SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE		NO CHARGE AVAILABLE UNTIL: July 2009	
AUTHOR: jm PRODUCT LINE: WN ADDITIONAL INFORMATION:			

Agilent Technologies

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Situation:

A1 fails and step attenuator on A1 is defective, due to the step attenuator reliability issue.

Solution/Action:

Replace A1 with the new one when the step attenuator fails.

Step attenuator pass/fail check Procedure

1) Check Channel2 on A1
a) Power On E5052A
b) Heat run over 30min
c) Connect 10MHz Ref out of E5052A and RF IN of E5052A
d) Push [Meas/View] and select Spectrum Analyzer Monitor
e) Push [Window/Max]
f) Push [Start/Center] - Center -10MHz
g) Push [Start/Center] -Span - 2MHz
h) Push [Trigger] - Trigger to Spectrum Analyzer Monitor
i) Push [Marker Search] - Peak -Search Peak all
The peak power value is displayed on the top left corner.
Read the peak power value (P1 dBm).
Note)
It should be selected the peak point on 10MHz.
If the peak point is set with another points, Channel2 Att is broken.
j) Push [ATT]
k) Change the ATT value from 5dB to 0dB
l) Make sure the difference between 5dB value and 0dB value is within +/-2dB.
m) Change ATT value as follows and make sure if the difference is within +/- 2dB.
0 dB ->5 dB ->10 dB ->15 dB ->20 dB ->25 dB ->30 dB -> 35dB
n) All of ATT difference is within +/- 2dB. -> Pass (Channel 2 ATT is good)

2) Check Channel1 on A1 (This information is for only internal use only).
a) Push [System] - Service Menu - Service Function
b) Input the service password
c) Service function -SP
d) Select CHANnel and change from Chan2 to Chan1
e) execute the same operation from 1)-j) to 1)-m)
f) All of ATT difference is within +/- 2dB. -> Pass (Channel 1 ATT is good)

Replacement Procedure

After replacing the parts, please check the following items.

Perform the following required adjustment using “A1 Freq/Power Det.” in spot Adjustment of the program.

Reference Frequency Adjustment
Pre-LO Sampler PLL BW Adjustment
Receiver DC offset Adjustment
PM Offset Adjustment
PM Linearity Adjustment
PM Temp Adjustment

PM Flatness Adjustment
Receiver RF Flatness Adjustment
Receiver IF Gain/Flatness Adjustment
LO Sampler PLL BW Adjustment
Phase Noise BW Adjustment

For verification, perform the following tests.
"Power On Test" on page 96
RF IN Port VSWR Test
Power Measurement Accuracy Test
SSB Phase Noise Sensitivity Test
SA Relative Level Accuracy Test

Retrofit Time:
Assembly Time: 0.5 hours
Adjustment Time: 6.0 hours
Performance Test Time: 2.0 hours

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