

S E R V I C E N O T E

SUPERSEDES: None

**8591E, 8590L, 8590D, 8591C Spectrum Analyzers**

**Serial Numbers:**

8590D-08: 0000A00000 / 9999Z99999  
 8590L-05: 0000A00000 / 3619A01223  
 8591C-08: 0000A00000 / 3619A01418  
 8591E-10: 0000A00000 / 3619A05248

**Low Frequency Residual improvement.**

**To Be Performed By:** Agilent-Qualified Personnel

**Duplicate Service Notes:** See Above

**Parts Required:**

Part No.	Description
08590-60197	Analog Board
08591-60072	Analog Board

**Situation:**

Instruments may fail for low frequency residuals. This is believed to be a day one problem. Failures will occur between 20-30 Mhz. center frequency.

*Continued*

DATE: August 1996

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS:	Labor 1.0 Hour
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 checked="" type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT
AUTHOR: BD	ENTITY: 5320	AGILENT RESPONSIBLE UNTIL: August 1998	
		ADDITIONAL INFORMATION:	

**Solution/Action:**

The low frequency residual can be eliminated by changing C54 from 0160-4832 .01uf to 0161-5412 16pf. This part can be changed automatically whenever one of the above models is in the service center or you can measure the residuals and see if they are out of spec and then opt to change the part on the A7 Analog board. Below is a procedure for testing the residual:

1. Set the center frequency to 20 Mhz. step size 100 Khz.
2. Res. BW 3 Khz, Input Attenuator 0dB, Ref. Level -60dBm.
3. Press the UP arrow key with center frequency active and look for residual responses -90 dBm for 50-ohm inputs and -38 dBmV for 75-ohm inputs. If you notice a failure, you will need to change out C54.