Installation Note

11884D 6 GHz Operation Upgrade Kit for the 8752C Network Analyzer



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PRODUCT AFFECTED:

8752C Network Analyzer

TO BE PERFORMED BY:

[X] Agilent Technologies Qualified Personnel

Purpose

The 11884D 6 GHz upgrade kit provides the 8752C network analyzer with optional 6 GHz operation. The upgrade kit is keyed to the serial number of an individual network analyzer.

Items Included in the Kit

Table 1 describes the parts included in the 11884D upgrade kit. Check the contents of the kit against this table.

| Quantity | Description | |
|----------|---------------------------------|--|
| 1 | 6 GHz source assembly | |
| 1 | Customer letter | |
| 1 | 6 GHz registration number label | |
| 1 | Keyword label | |
| 1 | Installation note | |
| 1 | Option installation label | |
| 1 | 6 GHz Nameplate | |

Table 1. 11884D Upgrade Kit Contents

Equipment and Tools Required

| Item | Part or Model Number |
|---|---|
| Power meter | 436A/437B/438A |
| Power sensor | 8482A |
| Power sensor | 8481A |
| Cable, 24-inch APC-7 (2 required) | P/N 8120-4779 |
| Adapter, APC-7 to N(f) | P/N 85054-60031 |
| 7 mm calibration kit | 85031B |
| GPIB cable assembly | 10833A |
| Low-pass filter | $360 \mathrm{B/C} \;(\mathrm{fc} = 1.2/2.2 \;\mathrm{GHz})$ |
| RF cable set | 11851B |
| Fixed attenuator, 20 dB | 8492A Opt 020 |
| T-10 TORX screwdriver | |
| T-15 TORX screwdriver | |
| T-20 TORX screwdriver | |
| 5/16 inch open-end wrench | |
| 5/16 inch torque wrench (10 in-lbs.) | |
| Electrostatic discharge (ESD) grounding wrist strap and mat | |

Table 2. Required Equipment

Safety Considerations

| Warning | Before you disassemble the instrument, turn the power switch OFF and unplug the instrument. Failure to unplug the instrument can result in personal injury. | | |
|---------|--|--|--|
| | | | |
| Caution | Electrostatic discharge (ESD) can damage or destroy electronic components. Perform these procedures only at a static-safe workstation and wear a grounding strap. Refer to the documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories. | | |

Installation Procedure for the 8752C

Verify the Serial Number

Refer to the keyword label in the box below. Verify that the analyzer's serial number matches the serial number below. This keyword will not work on any other analyzer. If the serial numbers do not match, contact your nearest Agilent Technologies sales and service office for assistance.

Keyword Label

Remove the Feet and Covers

Refer to Figure 1-1.

- 1. Disconnect the power cord.
- 2. Remove the top cover:
 - a. Remove both of the upper rear feet (item 1) by loosening the attaching screws (item 2).
 - b. Loosen the top cover screw (item 3).
 - c. Slide the cover towards the back of the instrument.



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Figure 1-1. Cover and Feet Removal

Remove the 3 GHz Source Assembly

Refer to Figure 1-2.

- 3. Remove the source bracket (item 4).
- 4. Disconnect the two semi-rigid cables (W1 and W24).
- 5. Lift the two retention clips (item 5) at the front and rear of the source module to an upright position.
- The source is seated in a motherboard edge connector. Hold the two loose semi-rigid cables (W1 and W24) to the right and gently pull up on the source bracket handle (item 6) to lift the source assembly out of the instrument.

Replace the Source

Refer to Figure 1-2.

- 7. Slide the edges of the sheet metal partition (item 7) of the 6 GHz source assembly into the guides at the front and back of the source compartment.
- 8. Press down on the assembly to ensure that it is well seated in the motherboard connector.
- 9. Push down the retention clips.
- 10. Reconnect the two semi-rigid cables (W1 and W24) to the source assembly. Torque these connections to 10 in-lbs.
- 11. Replace the source bracket.



Figure 1-2. A3 Source Assembly Removal

Move the A9 CC Jumper

- 12. Remove the PC board stabilizer bar with a pozidrive or TORX screwdriver.
- 13. Remove the A9 CPU assembly by pulling upward on its white extractor tabs (see the assembly location diagram inside the top cover).
- 14. Move the A9 CC jumper from the normal operating position to the alternate (ALT) position as shown in Figure 1-3.



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Figure 1-3. A9 CC Jumper Location for the 8752C

Configure the 8752C for 6 GHz Operation

- 15. Switch on the power for the 8752C.
- 16. Press (PRESET), (DISPLAY), MORE TITLE ERASE TITLE to erase the logo. At the prompt, press EXECUTE TEST YES.
- 17. Enter the keyword from Step 2 on page 5. You may use an external keyboard or use the analyzer's front panel knob to poisition the arrow below each character of the keyboard. Press SELECT LETTER to enter each character. When all characters are entered, press DONE
- 18. Press (SYSTEM), SERVICE MENU, TEST, 56, (x1). At the prompt, press EXECUTE TEST YES.

The analyzer will display Option Cor DONE when the test is complete.

- Press RETURN TESTS (44 (x1). At the prompt, press EXECUTE TEST YES.
 The analyzer will display *Source Def DONE when the test is complete.
- 20. Press RETURN TESTS (45) (x1). At the prompt, press EXECUTE TEST YES. The analyzer will display *Pretune Def DONE when the test is complete.

21. Press RETURN TESTS (46) (x1). At the prompt, press EXECUTE TEST YES.

The analyzer will display ABUS Cor DONE when the test is complete.

22. Press RETURN TESTS (48) (x1). At the prompt, press EXECUTE TEST YES.

The analyzer will display Pretune Cor DONE when the test is complete.

- 23. Refer to "Adjustments" in the 8752C Network Analyzer Service Guide and perform the following adjustments:
 - RF Output Power Correction Constants
 - Cavity Oscillator Frequency Correction Constants
 - Sampler Magnitude and Phase Correction Constants
- 24. Refer to "System Verification and Performance Tests" in the 8752C Network Analyzer Service Guide and perform the following system tests:
 - Test Port Output Power Accuracy
 - Test Port Input Frequency Response
 - Output/Input Test Port Harmonics (necessary only for analyzers with both option 002 and 006)
- 25. Switch off the analyzer power and disconnect the power cord.
- 26. Move the A9 CC Jumper back to the normal (NRM) position as shown in Figure 1-3.
- 27. Replace the PC board stabilizer.

Install the Keyword Label

28. Refer to Figure 1-4. Place the keyword label inside the instrument at the location shown.



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Figure 1-4. Option Keyword Label Location for the 8752C

Reassemble the Instrument

- 29. Replace the instrument top and bottom covers, and all the rear panel guard feet.
- 30. Place the 11884D installation label on the rear panel of the network analyzer. Write the date of the installation in the space provided.

Replace the Analyzer's Nameplate

- 31. Use a sharp knife to slowly peel away the old nameplate.
- 32. Adhere the new nameplate, which is included in the upgrade kit, onto the analyzer's front panel.

This completes the 11884D 6GHz operation upgrade kit installation for the 8752C.

Agilent Technologies Sales and Service Offices.

By internet, phone, or fax, get assistance with all your test & measurement needs.

Table 1-1. Contacting Agilent

Online Assistance: www.agilent.com/find/assist

| United States (tel) 1 800 452 4844 | Japan (tel) (81) 426 56 7832 (fax) (81) 426 56 7840 | New Zealand (tel) 0 800 738 378 (fax) 64 4 495 8950 |
|---|---|--|
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| Europe (tel) (31 20) 547 2323 | Australia (tel) 1 800 629 485 | |

(far) (31 20) 547 2325 (far) (61 3) 9210 5947 (far) (61 3) 9210 5947