S E R V I C E   N O T E

1152A Active Probe

Serial Numbers: 0000A00000 / 9999Z99999

To be performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Quantity
8665A	Signal Generator	1
436A,437A	Power Meter	2
or		
438A	Dual Channel Power Meter	1
ET36262	ET External Power Supply	1
8482A	Power Sensor	2
11667A	Power Splitter	1
1143A	Power and Control for Probe Under Test	1
11880-60001	Probe Tip Adapter/Termination	1
1250-0772	Adapter	1
1250-0778	Adapter	1
6114A	Power Supply, 5Vdc	1
3458A	Digital Multimeter	1
10100C	Termination, 50 ohm BNC Feed Through	1
1251-2277	BNC to Banana Adapter	1
	BNC cable	1

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DATE: June 2001

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
INFORMATION ONLY		
AUTHOR: MH	ENTITY: 0800	ADDITIONAL INFORMATION:

Agilent Technologies

Situation:

There is no external power supply to work with probes that has the Auto Probe interface that is available as a product. Therefore, we are unable to list these Performance tests in the service manual.

Solution / Action:

The field should have access to the ET36262 fixture to Perform the following tests:

Bandwidth Performance

1. Zero and Calibrate the power meters with the power sensors

2. Connect the power splitter to the output of the signal Generator

3. Connect one end of the power splitter to one of the power Sensors

4. Connect that same power sensor to one of the power meters or to one of the channels if using a dual output meter

5. Connect the probe tip adapter (11880-60001) to the other end of the power splitter

6. Connect the probe tip to the probe tip adapter

7. Connect the other end of the probe to the input BNC of the ET36762

8. Connect the other power sensor to the output BNC of the ET36762

9. Connect that same power sensor to the other power meter to the other channel if using dual output meter

10. Connect the power supply (1143A) to the serial connection of the ET36762.

11. Set the 1143A power module Offset controls to Local and Zero

12. Set the signal generator for 50 MHz at 0.0dBm

13. Set the power meter calibration factors to the 50 MHz value the power sensors

14. Adjust the signal generator power output for exactly -6.0dBm as read on the input power meter

15. Note the power level reading on the output power meter.
    50 MHz power level _____ dBm

16. Change the signal generator frequency to 2.5 GHz

17. Set the power meter calibration factors to the 2.5 GHz value on the power sensors

18. Re-level the signal generator output power for a -6.0 dBm reading on the input power meter

19. Note the power level reading on the output power meter
    2.5 GHz power level _____ dBm

20. Subtract the reading in step 15 from the reading in step 19 21. The difference should be less than or equal to 3.0 dB.

Gain Accuracy:

1. Set the power supply for 5.0V

2. Connect the 1152A probe to the ET36262 auto connector.

3. Connect the ET36262 cable to the 1143A Power Module

4. Connect the probe to the input ofthe ET36262 and the output of the ET36262 to the input of the 3458A multi-meter

5. Set the 1143A power module Offset controls to Local and Zero

6. Short the input pin of the probe to the shield at the probe tip

7. Read and record the offset voltage on the 3458A multi-meter.
      _____mV

8. Connect the probe to the 6114A Power supply

9. Read and record the voltage on the 3458A multi-meter.
      _____mV

10. Subtract the reading in step 7 from the reading in step 9.
      _____mV

11. Calculate the DC GAIN. Dcgain = (result in step 10/ 5.0V)

12. The gain should be between 0.09950 and 0.10050