

ADVANTEST

R3961T

R3961T 3 Port Test Set

1. Outline of Product

R3961T 3 Port Test Set is a test set designed to be connected to the R3762AH Network Analyzer to measure transmission and reflection characteristics. It contains three ports, and the forward and reverse transmission as well as reflection characteristics can be measured without having to remove the device from the test port. The measurements are made using the R3762AH Network Analyzer's basic controller functions.

2. Measurements

This product allows the 7 types of measurements listed below:

- (1) Antenna port reflection
- (2) Port 1 reflection
- (3) Port 2 reflection
- (4) Antenna Port => Port 1 Transmission
- (5) Antenna Port => Port 2 Transmission
- (6) Port 1 => Antenna Port Transmission
- (7) Port 2 => Antenna Port Transmission

3. Operational Instruction

This test set is controlled by R3762AH Network Analyzer. Each measurement can be made by pressing the assigned Network Analyzer's function key. Port 1 or 2 selection is made by attenuator's control.

<u>Measurement</u>	<u>R3762AH Setup</u>
A Port Reflection	S11 Port 1, 2 attenuator 0 db
Port 1 Reflection	S22 Port 1, 2 attenuator 0 db
Port 2 Reflection	S22 Port 1, 2 attenuator 10 db
A Port =>Port 1 Transmission	S21 Port 1, 2 attenuator 0 db
Port 1 =>A Port Transmission	S12 Port 1, 2 attenuator 0 db
A Port =>Port 2 Transmission	S21 Port 1, 2 attenuator 10 db
Port 2 =>A Port Transmission	S12 Port 1, 2 attenuator 10 db

4. Calibration

Use 2 Port Full Calibration. 2 sets of calibration data are required for 2 ports. The Save / Recall registers are used for the measurements.

Example

A Port <--> Port 1 2Port Cal ==> Save Register 1

A Port	<=>	Port 2 2Port Cal	=>	Save Register 2
Rx	<=>	Tx Measurement	<=	Recall Register 1
Rx	<=>	Ant Measurement	<=	Recall Register 2

5. Specifications

(1) Frequency Range	50 MHz to 3.6 GHz
(2) Directivity	*
(3) Source Match	*
(4) Load Match	*
(5) Port Switch Repeatability	0.03 dB after 10 switching
(6) Test Port Maximum Input Level	+20 dBm, 0 VDC

* Specified by 2 Port Full Calibration.

6. Differences from the R3961B Test Set

(1) No DC Bias function
(2) No Step Attenuator

7. Accessories

Description	Product Name	Stock Number	Units
N-N Cable	A01247	DCB-FF0388X06	4
Control Cable	S7FE-314-20P3W	DCB-RR3994X01	1

8. R3961T Block Diagram attached