An Application-Oriented Network Analyzer

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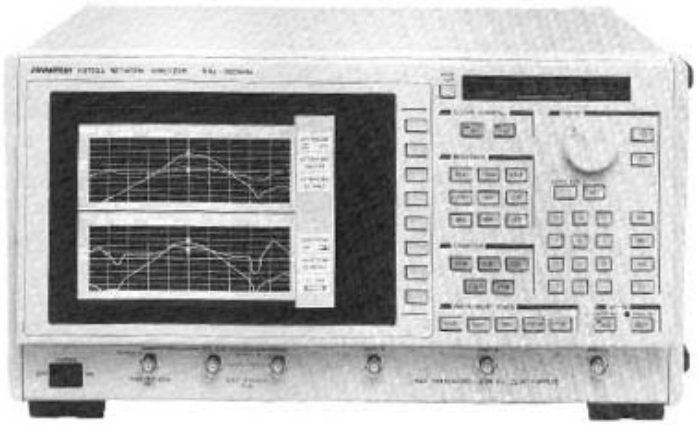


R3752/R3753 Series Network Analyzers

- **System use R3752 series**
  Standalone use R3753 series
- **Measuring frequency range: 5 Hz to 500 MHz**
- **Sweep rate: 0.1 ms/point**
- **2ch, 4 trace and 2 device simultaneous measurement**
- **Wide dynamic range (115 dB)**
- **Program sweep and high-speed level sweep functions fitted as standard**

The R3752/R3753 series features a 500MHz vector network analyzer developed with varied applications in mind. The series aims for high throughput an highly reliable measurement, and it achieves high-speed measurement (0.1 ms/point at 10 kHz RBW), wide dynamic range measurement (115 dB), 2 device simultaneous measurement with 2-channel 4-trace function, and other useful functions. Besides a conventional frequency sweep function, several new concepts have been added. Firstly a program sweep function allows the user to a freely change resolution bandwidth or output level at any point during the sweep. Secondly a high-speed level sweep utilizes a new semiconductor switch at the output section and is ideal for drive level performance testing of quartz oscillators. The R3752 series is designed as a system use analyzer and is compact in size and light-weight (only 15 kg). The R3753 series is designed for standalone use, and employs a TFT color liquid crystal, giving priority to visibility and operability, which are important for interpreting and analyzing the results of measurement.

(Specifications)

Measurement functions
Number of display channels:
2 channels (4 tarace display)
Display parameters:
A/R, B/R, A/B, R, A, B (R3752A, R3753A)
A/R, R, A (R3752B, R3753B)
A (R3752E, R3753E)

Signal charateristics
Frequency: Range; 5Hz to 500MHz

Output levels: Range: +21 dBm to –63 dBm (Output port 1)

Output formats
Output; Single, dual (R3752A/B, R3753A/B)
Single (R3752E, R3753E)

Sweep time: 0.1 ms/point (at 10 kHz RBW)

Receiver section characteristics
Input teminals; 3ch (R3752A, R3753A)
2ch (R3752B, R3753B)
1ch (R3752E, R3753E)

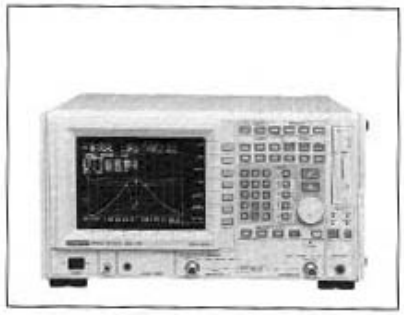
Noisse level: –115 dBm
(RBW 1 kHz, 500 kHz to 300 MHz)

Amplitude characteristics:
Measurement range; 0±120 dB
(RBW 1 kHz)
Accuracy; ±0.5 dB
(50MHz, 25 ±5°C, Max. input level)
Dynamic accuracy;
–10 dBm to –60 dBm, ±0.05 dB

Phase measurement:
Measurement range; ±180°
Dynamic accuracy;
–10 dBm to –50 dBm, ±0.3°

Group delay time characteristics:
Measurement range; 1ps to 250s
Resolution; 1ps

	R3752 series			R3753 series		
	R3752A	R3752B	R3752E	R3753A	R3753B	R3753E
Type	System use			Standalone		
Sweep rate	0.1ms/point. (at 10 kHz RBW)					
Display	Fluorescent character display tube			7.8-inch TFT color luquid crystal		
Output signal	Single & dual	Single & dual	Single	Single & dual	Single & dual	Single
Number of input channels	R, A, B	R, A	A	R, A, B	R, A	A
Frequency range	5 Hz to 500 MHz	5 Hz to 500 MHz	5 Hz to 500 MHz	5 Hz to 500 MHz	5 Hz to 500 MHz	5 Hz to 500MHz
	100 mHz	100 mHz	100 mHz	100 mHz	100 mHz	100 mHz
Connection to S parameter test set	No	No	No	Yes	No	No
Output level	21 dBm	21 dBm	21 dBm	21 dBm	21 dBm	21 dBm
Dynamic range (AUTO)	115 dB	115 dB	115 dB	115 dB	115 dB	115 dB
Dynamic accuracy	0.05 dB/0.3°	0.05 dB/0.3°	0.05 dB/1.5°	0.05 dB/0.3°	0.05 dB/0.3°	0.05 dB/1.5°
	0.001 dB/0.01°	0.001 dB/0.01°	0.001 dB/0.01°	0.001 dB/0.01°	0.001 dB/0.01°	0.001 dB/0.01°



R3763B Network Analyzer

- **By sweeping measurements over a wide frequency range**
- **Enhancing space and operation effciencies**
- **Providing high-throughput measurements**
- **Digital processing for highly accurate measurements**
- **A variety of analytical and marker functions**
- **Turnkey operation through the BASIC controller functions**

(Specifications)

Measuring Functions

Display parameters: REFL (reflection, S11), TRNS (transmission, S21) Including conversion of impedance and admittance. Characteristic impedance (Zo) can be input.

Signal source characteristics

Measurement frequency range: 300 kHz to 3.6 GHz

Output level: +5 dBm to –18 dBm

Reception transmittion characteristics

Amplitude characteristics: Measurement range 0 ±100 dB (amplitude ratio), resolution 0.001 dB and dynamic accuracy ±0.05 dB (at –10 dBm to –60 dBm)

Phase measurement: Measurement range ±180°, resolution 0.01° and dynamic accuracy ±0.3° (at –10 dBm to –50 dBm)

Group delay time characteristics: Measurement range 1 ps to 250 s, resolution 1 ps and accuracy

Reception reflection characteristics

Derectivity: 35 dB or more (at 20 MHz to 2.0 GHz, 25°C ± 5°C)

Amplitude characteristics: Measurement range 0 ± 100 dB (amplitude ratio), resolution 0.001 dB and amplitude tracking ± 0.5 dB (at –14 dBm, 20 MHz to 3.6 GHz, 25°C ±5°C)

Phase characteristics: Measurement range ±180°, resolution 0.01° and phase tracking ±5° (at –14 dB, 20 MHz to 3.5 GHz, 25°C ± 5°C)

Group delay time characteristics: Measurement range 1 ps to 250 s, resolution 1 ps

Other functions

Instrument state functions: Save, recall and limit function

Programming functions: BASIC controller function, built-in function and FDD function

Connections to external equipment: Copy, video plotter output, GPIB data output & remote control, EIA-232-D output and parallel I/O output