

## Industry's Smallest, Lightest PC-Mounted Vector Network Analyzer

### Board Network Analyzer R3755A

**For evaluation of the frequency characteristics of antennas, ceramic resonators, crystal resonators, and other components used in a broad range of electronics**

#### [ Summary ]

The expansion of emerging economies, led by China and India, continues to drive robust sales of computers, flat-panel televisions, cellular phones, and other consumer electronics, supporting forecasts of increasing demand for electric components used in these products. Meanwhile, makers of consumer electronics are experiencing price pressure that contributes to greater-than-ever incentives for component makers to reduce costs. R3755A meets these needs with its low power consumption, compact dimensions, and comprehensive functionality, now supporting frequency characteristics test of ceramic resonators as well as a wide variety of other wireless components.



#### [ Features and Benefits ]

##### 1) Industry's Smallest, Lightest Board Network Analyzer Consumes 40% Less Power

The R3755A incorporates the board design developed by Advantest for its crystal resonator network analyzer, the R3755, in a 50% more compact body, enabling its energy consumption to be reduced by 40%. With an expanded frequency range compared to previous models, the R3755A now boasts the ability to test the frequency characteristics of ceramic resonators and tuning fork type crystal resonators, as well as other device types supported to date. Its PC-mounted form factor allows users to construct a measurement environment on existing computers, contributing significantly to cost savings and manufacturing efficiency.

##### 2) Easily customizable measurement environment

The R3755A supports Microsoft Windows® (\*), enabling users to develop application software with customizable parameters.

(\* ) Microsoft Windows® is either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

#### [ Key Specifications ]

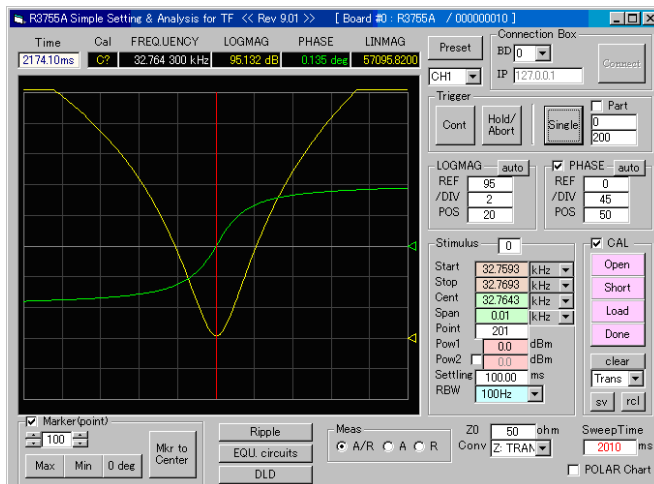
**Frequency Characteristics Range:** 10 kHz to 300 MHz  
**Output Characteristics Range:** 18 dBm to -43 dBm (over 1 MHz)  
 0 dBm to -20 dBm (under 1 MHz)  
**Measurement Parameters:** A/R  
**Mounting Requirements:** 1 half-size PCI slot  
**Input / Output:** Standard parallel I/O ports

[ Specifications ]

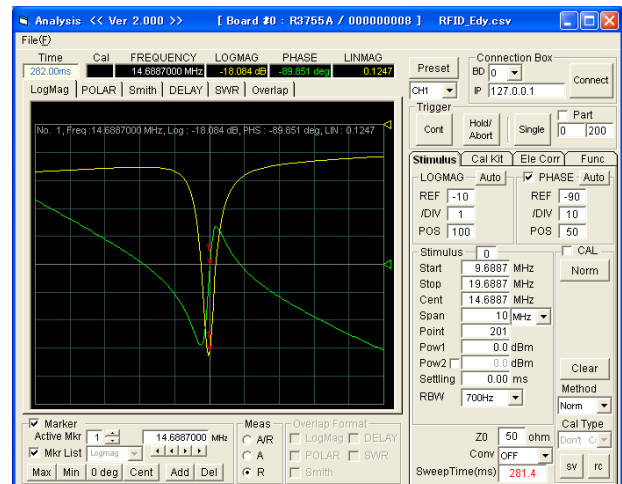
Model	R3755A	
Frequency range	10kHz to 300MHz	Resolution 1Hz
Frequency accuracy	+/- 20ppm	Including the aging, 1 year calibration cycle
	+/- 1ppm	Option 20
Output level	<1MHz: 0dBm to -20dBm >1MHz: +18dBm to -43dBm	Resolution 0.1dB
	1nW to 1mW	Using PI fixture, @CI = 25ohm
Input channels	1ch	Rch is internal connection
Measurement channels	4ch	Each channel can be set independently. Channel coupling is not available.
Mesurment parameters	A/R	
Noise level	10kHz to 1MHz: -70dBm 1MHz to 100MHz: -85dBm 100MHz to 300MHz: -70dBm	@RBW 1kHz
Measurement points	Max. 1601 points	Can sweep at the specified points (Segment)
Measurement speed	50usec / point	@RBW 15kHz
Calibrations	Normalize, Full CAL	Full CAL: Open, Short, Load
Max. Installation per 1 PC	8 units	Need NAC server C01 or later
PCI size/slot	Half size PCI	1 slot
Power consumption	Max. 15W	

[ Measurement examples ]

Resonant frequency measurement  
of RFID



Resonant frequency measurement  
of turning fork crystals



Please refer to product manual for complete system specifications. Specifications may change without notification.