ADVANTEST

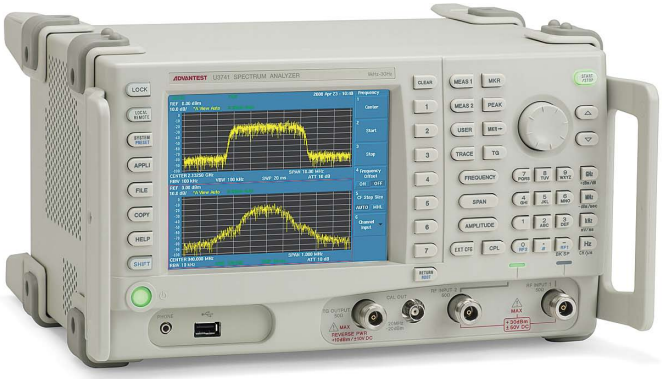
Selection Guide
2011.2～

Selection Guide

Advantest offers new measurement-style "New Concept Solution"

Spectrum Analyzer Series:

- New measurement by two channel input
- Fundamental parameter measurement by time domain analysis



Board Network Analyzer Series:

- Reflection/transmission measurement by PC deployment type network analyzer
- Systems construction by new measurement method

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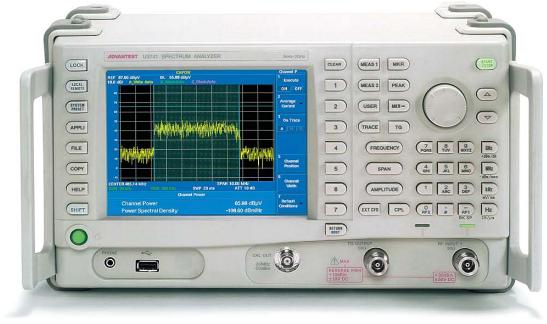
Spectrum Analyzer Series

3GHz Spectrum Analyzer U3741
8GHz Spectrum Analyzer U3751



U3741/U3751

Frequency range: U3741 9kHz to 3GHz, 9kHz to 2.2GHz(OPT.15)
U3751 9kHz to 8GHz

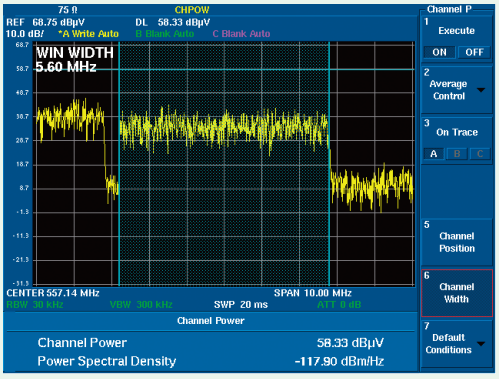
Resolution bandwidth range: U3741 100Hz to 1MHz,
30Hz to 1MHz(OPT.70/71)
U3751 100Hz to 3MHz,
30Hz to 3MHz(OPT.70/71)

Measurement range: +30dBm to –123dBm(PreAmp Off)
–138dBm(PreAmp On)

Total level accuracy: ±0.8dB(10MHz to 3GHz)

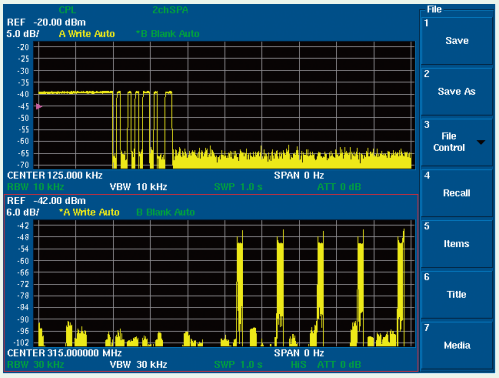
Terrestrial digital broadcasting:

Example of OFDM channel power measurement



Tire air pressure senser:

Example of synchronous sweep measurement by OPT.10



■ Common feature to series

- Many options of the first 2ch inputs in the world, time domain analysis, etc.
- Measurement data preservation by USB memory and Remote control by LAN, and GPIB interface.
- Correspond broadly from the field to production lines by the Compact and light weight, 3 power supply systems.

■ Spectrum Analyzer Series Options Guide

	Product name	Model No.	Overview	Main unit support			
				U3741		U3751/3771/3772	
				1ch	2ch	1ch	2ch
50 Ω series[1]	2 Channel input (50 Ω)	OPT.10	Addition of RF INPUT2 (9 kHz to 3 GHz) Individual RF measurement with RF INPUT 1 and RF INPUT 2	–	○	–	○ [3]
	EMC filter	OPT.28	Addition of CISPR bandwidth and QP Detector for EMI measurement RBW (6dB Down): 200 Hz, 9 kHz,120 kHz, 1 MHz	○	○	○	○
	High-purity spectrum analysis (1 ch)	OPT.70	Spectrum analysis with -102 dBc/Hz @ 10 kHz offset (Typical) Addition of RBW 30 Hz	○	–	○	–
	High-purity spectrum analysis(2 ch)	OPT.71	Spectrum analysis with -102 dBc/Hz @ 10 kHz offset (Typical) Addition of RBW 30 Hz	–	○	–	○
	Tracking generator (3 GHz)	OPT.76	Frequency range: 100 kHz to 3 GHz Output level range: 0 to -60 dBm	○	○	○ [2]	×
	Tracking generator (6 GHz)	OPT.77	Frequency range: 100 kHz to 6 GHz Output level range: 0 to -30 dBm	×	×	○ [2]	×
75 Ω series[1]	2 Channel input (75 Ω)	OPT.11	RF INPUT 2 (9 kHz to 2.2 GHz) in addition to OPT.15 Individual RF measurement with RF INPUT 1 and RF INPUT 2	–	○	–	×
	1 Channel input (75 Ω)	OPT.15	RF INPUT: 75 Ω (100 kHz to 2.2 GHz) For CATV and TV signal measurement. Channel table data installed.	○	–	×	–
	Tracking generator (2.2 GHz)	OPT.75	Frequency range: 100 kHz to 2.2 GHz. Output level range: 107 to 47 dBµV	○	○	×	×
Commons	High-stability frequency reference source	OPT.20	Reference oscillator with an aging rate of ± 2 x 10-8/day, ±1 x 10-7/year	○	○	○	○
	Time-domain analysis (1 ch)	OPT.53	Analyze the basic parameter of RF signal on a time domain Max CBW: 3MHz (amplitude/phase/frequency/FFT/IQ/IQ output)	○	–	○	–
	Time-domain analysis (2 ch)	OPT.54	Analyze the basic parameter of RF signal on a time domain Max CBW: 3MHz (amplitude/phase/frequency/FFT/IQ/IQ output)	–	○	–	○
	Wide-band time-domain analysis (1 ch)	OPT.55	Analyze the basic parameter of RF signal on a time domain Max CBW: 40MHz (amplitude/phase/frequency/FFT/IQ/IQ output)	○	–	○	–
	Wide-band time-domain analysis(2 ch)	OPT.56	Analyze the basic parameter of RF signal on a time domain Max CBW: 40MHz (amplitude/phase/frequency/FFT/IQ/IQ output)	–	○	–	○

1) : The options of 50 Ω series and 75 Ω series cannot be installed simultaneously.

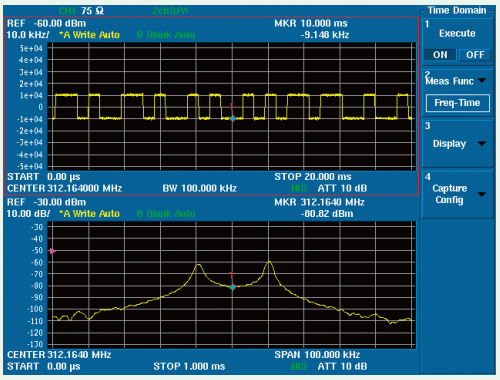
2) : One must be selected from OPT.76/77.

3) : When the OPT10 is installed, RF1 of 9kHz~8GHz is deleted, then RF1 is 10MHz~31.8GHz(U3771)/10MHz~43GHz(U3772) and RF2 is 9kHz~3GHz.

○ Available
× Not available

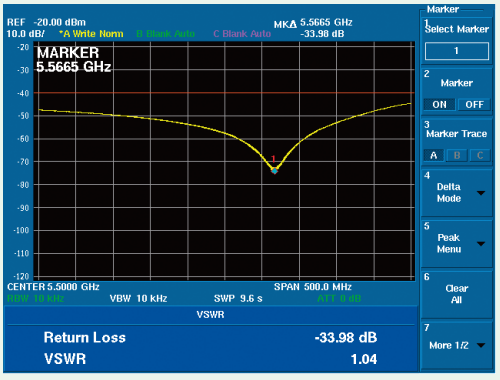
Specific low power supply unit:

Example of F-T and FFT measurement



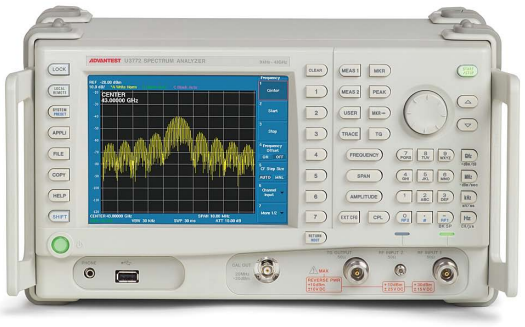
Antenna or filter:

Example of return loss VSWR measurement



Spectrum Analyzer Series

31GHz Spectrum Analyzer U3771
43GHz Spectrum Analyzer U3772



U3771/U3772

Frequency range: U3771 9kHz to 31.8GHz
U3772 9kHz to 43GHz
Resolution bandwidth range : 100Hz to 3MHz, 30Hz to 3MHz(OPT.70/71)
Measurement range : RF1 +30dBm to -123dBm(Band:0,PreAmp Off)
RF2 +10dBm to -105dBm(Band:4)

■ Feature of option (Refer to the options guide for the combination)

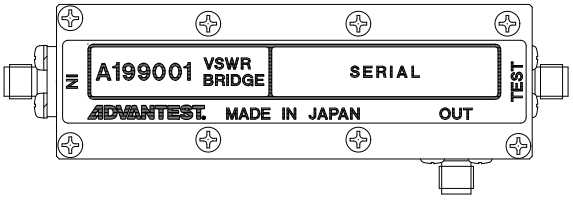
- Corresponds to the broadcasting equipment by 75Ω input (OPT.11,15).
- Parallel monitoring RF and IF signals by 2 ch input (OPT.10,11).
- Simultaneous measurement of different signals or different items by 2 ch input.
- Measurement of RF fundamental parameter by time domain analysis. (OPT.53,54,55,56).
- Time-domain analysis for high-frequency signal to 43GHz.
- Reflection/transmission measurement up to 6GHz by Tracking generator (OPT.77).

■ Spectrum Analyzer Series Accessory

	Model No.	Product name	Outline
Accessory	JU3700S-A	Japanese operating manual (printed manual)	The operating manual on the CD is supplied as standard.
	EU3700S-A	English operating manual (printed manual)	The operating manual on the CD is supplied as standard.
	A870008	Battery pack	for U3700 series, A maximum of 2.5-hour enabled
	A870009	Charger	Two-piece charge is simultaneously possible in A87008
	ZT-130NC	75 Ω input impedance converter	Loss 6dB Frequency characteristic up to 2GHz
	A114020	DC power cable	DC +11V to +17V
	A129001	Carrying bag	Cloth bag
	A129002	Transit case	Aluminum cases (with the handle which can be expanded and contracted)
	A122003	Rack mount kit (JIS)	–
	A124004	Rack mount kit (EIA)	–
	A899001	Filter for spurious measurement	2.8 to 18 GHz (HPF)
	A899002	Filter for spurious measurement	8 to 18 GHz (HPF)
	A899003	Filter for spurious measurement	11 to 26 GHz (HPF)
	A899004	Filter for spurious measurement	18 to 30 GHz (HPF):

A199001 6GHz VSWR Bridge

Frequency range: 100MHz to 6GHz
Directivity: ≧34dB (100MHz to 1GHz)
≧29dB (1 to 3.8GHz)
≧25dB (3.8 to 6GHz)
External dimensions : Approx. 103 × 35 × 20mm (W × H × D)



Board Network Analyzer Series

300MHz Board Network Analyzer R3755A

Frequency range:	**10kHz to 300MHz**
Output level:	**+18dBm to -43dBm (1MHz to 300MHz)**
Measurement parameter:	**A/R**
External dimensions:	**PCI board, half size, 1 slot**
Input/output:	**Parallel I/O (Standard)**

6GHz Board Network Analyzer R3760

Frequency range:	**300MHz to 6GHz**
Output level:	**0dBm to -10dBm (≦ 3GHz)**
Measurement parameter:	**Transmission/Reflection**
External dimensions:	**PCI board, half size, 2 slots**
Input/output:	**Parallel I/O (Standard)**

■ Common feature to series

- The new board network analyzer used including in a personal computer.
- Software development environments: Microsoft VB and C++.
- Provide a production line with optimality space-saving and low cost-ization.

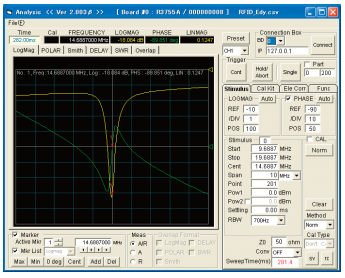
*Please inquire about recommended personal computer.

■ Accessories

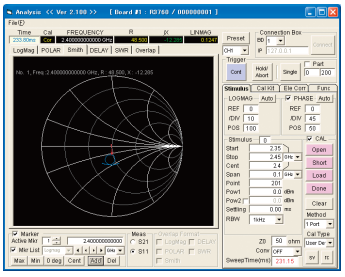
4-port Adapter A170009
Forward/Reverse Adapter A170010

Frequency range :	**300MHz to 6GHz**
Insertion loss :	**<5.5dB at 6GHz**

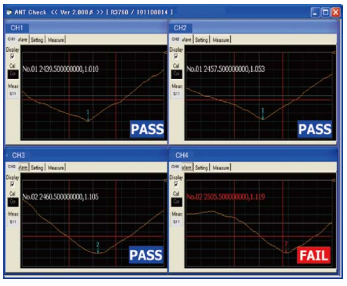
Example of sample software measurement



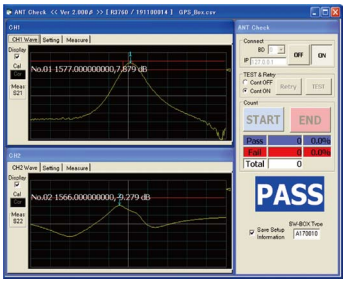
R3755A Log/Mag Display



R3760 Smith Chart Display



Parallel measurement for four antenna devices (A170009)



Measurement for antenna devices to have AMP built-in (A170010)

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

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