Spectrum Analyzers

RIGOL's RSA series (including RSA5000 series and RSA3000(E) series) are the first full-function real-time spectrum analyzers in China. Being equipped with the patented technology Ultra Real, it optimizes performance and price. The superb specifications and outstanding performance can be delivered both in the GPSA and RTSA working modes. With a 10.1" capacitive multi-touch screen with high resolution, it supports various touch gestures. You can also operate it with the externally connected keyboard and mouse. It has the built-in Linux system, and the HDMI interface is available for you to make the communication interface more stable and reliable. It can be widely applied to corporate R&D, factory production, education teaching, and other fields. With excellent performance at an unprecedented price point, the RSA series real-time spectrum analyzer allows you to further improve measurement quality at low costs.

DSA800 series, DSA800E series, and DSA700 series spectrum analyzers are based on a brand new spectrum analyzer technical platform, and adopt the latest digital IF technology in design to deliver high performance. These spectrum analyzer products cover different frequency ranges, and its frequency can reach up to 7.5 GHz, the Displayed Average Noise Level (DANL) as low as -161 dBm, phase noise below -98dBc/Hz, RBW 10 Hz. These specifications reach the international advanced level of the same product category. To meet the demands of different users, these spectrum analyzers are also equipped with standard and optional accessories, such as preamplifier (PA), tracking generator (TG), Vector Signal Analysis Measurement Application,EMI Measurement Application,advanced measurement kit (AMK), VSWR measurement kit, teaching kit, VSWR bridge, cables, and converters.

	Frequency Band								Max. RTBW	Min. RBW	Phase Noise (at 10 kHz offset)	Software					Hardware	
	0.5 GHz	1 GHz	1.5 GHz	3 GHz	3.2 GHz	4.5 GHz	6.5 GHz	7.5 GHz				Vector Signal Analysis Measurement Application	EMI Measurement Application	AMK	EMI	VSWR	TG	Preamp
RSA5065/-TG							●		40MHz	1Hz	-108dBc/Hz	○	○	○	●	●	with TG	○
RSA5032/-TG					●				40MHz	1Hz	-108dBc/Hz	○	○	○	●	●	with TG	○
RSA3030/-TG				●					40MHz	1Hz	-102dBc/Hz		○	○	○	●	with TG	○
RSA3045/-TG						●			40MHz	1Hz	-102dBc/Hz		○	○	○	●	with TG	○
RSA3030E/-TG				●					10MHz	1Hz	-102dBc/Hz		○	○	○	●	with TG	○
RSA3015E/-TG			●						10MHz	1Hz	-102dBc/Hz		○	○	○	●	with TG	○
DSA875/-TG								●		10Hz	-98dBc/Hz			○	○	○	with TG	●
DSA832/-TG					●					10Hz	-98dBc/Hz			○	○	○	with TG	●
DSA832E/-TG					●					10Hz	-90dBc/Hz			○	○	○	with TG	●
DSA815/-TG			●							10Hz	-80dBc/Hz			○	○	○	with TG	●
DSA710		●								100Hz	-80dBc/Hz			○	○		without	●
DSA705	●									100Hz	-80dBc/Hz			○	○		without	●

● Standard   ○ Option

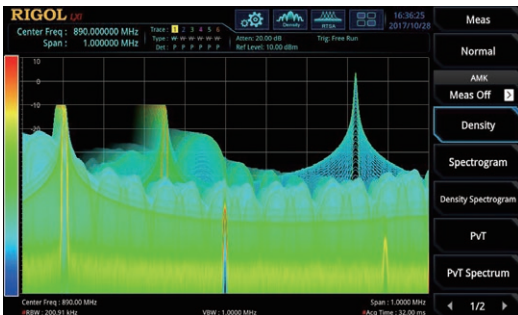none

RSA5000 Series Spectrum Analyzers

The RSA5000 series real-time spectrum analyzer includes four models: RSA5065, RSA5065-TG, RSA5032, and RSA5032-TG. Its frequency band ranges from 9 kHz to 6.5 GHz, 9 kHz to 3.2 GHz. With patented technology Ultra Real, it provides four modes (GPSA, RTSA, EMI, and VSA) to deliver excellent performance and best specifications.
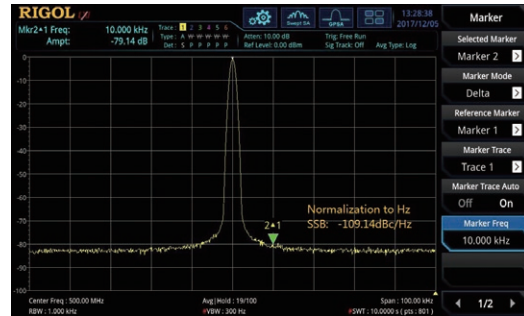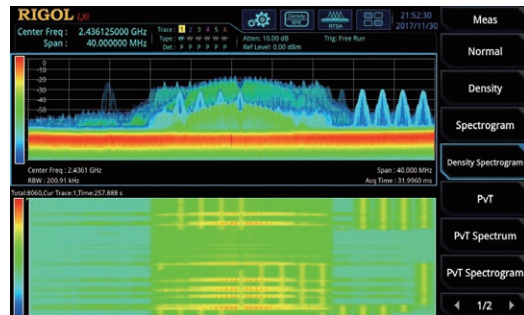
In RTSA mode, it can seamlessly capture the transient signal, and display the measurement results completely in the Density view, Spectrum view, etc. The FMT trigger mode allows you to accurately capture the signal of interest. The VSA mode provides the analysis for the vector signal and displays several measurement analysis results. The EMI mode enables users to perform EMI pre-compliance test that meets the CISPR standards.

- Frequency stability: 0.5 ppm, option: 0.005 ppm
- Phase noise: <-108 dBc/Hz (typical)
- DANL: -165 dBm (typical)
- RBW: 1 Hz to 10 MHz
- Full-scale accuracy: <0.8 dB
- Sweep rate: 1 ms
- Real-time bandwidth or I/Q demodulation bandwidth: 25 MHz, option: 40 MHz
- FFT rate: 146,484 FFTs/s
- POI: 7.45 µs
- SFDR: <-60 dBc (typical)

10.1" capacitive multi-touch screen; supporting several touch-enabled gestures

Excellent swept specifications; phase noise: -108dBc/Hz@10kHz offset (min.)

Monitor spectrum signal in the persistence view

Observe the changes of the time-varying signals in the Spectrum view

Use FMT to accurately capture signals

Various advanced measurement functions

Time-domain, frequency-domain, and modulation-domain analysis for the vector signal

Powerful EMI pre-compliance test function

Key Specifications

		RSA5032	RSA5032-TG	RSA5065	RSA5065-TG
Frequency Range		9 kHz to 3.2 GHz		9 kHz to 6.5 GHz	
Frequency Stability	0℃ to 50℃, with the reference 25℃				
	Standard	<0.5 ppm			
	Option OCXO-C08	<0.005 ppm			
Phase Noise	10 kHz, f_c = 500 MHz	<-106 dBc/Hz, <-108 dBc/Hz (typical)			
Resolution Bandwidth (-3 dB)		1 Hz to 10 MHz, in 1-3-10 sequence			
Resolution Bandwidth (-6 dB)		200 Hz, 9 kHz, 120 kHz, 1 MHz			
Displayed Average Noise Level (DANL)		preamp on, attenuation = 0 dB, sample detector, trace averages ≥ 50, tracking generator off, normalized to 1 Hz, 20℃ to 30℃, input impedance = 50 Ω.			
		<-162 dBm, <-165 dBm (typical)			
Level Measurement Uncertainty		0.8 dB (nominal)			
TG Frequency Range		--	100 kHz to 3.2 GHz	--	100 kHz to 6.5 GHz
TG Output Level Range		--	-40 dBm to 0 dBm	--	-40 dBm to 0 dBm
Real-time Analysis Bandwidth		25 MHz, 40 MHz (Option RSA5000-B40)			
Full-scale Accuracy Min. signal duration for 100% POI at the full-scale accuracy		maximum span; default Kaiser Window			
		7.45 μs			
Window Type		Hanning, Blackman-Harris, Rectangular, Flattop, Kaiser, Gaussian			
Max. Sample Rate		51.2 MSa/s			
FFT Rate		146,484 FFTs/s (nominal)			
SFDR		mixer level = -30 dBm			
		<-60 dBc/Hz (typical)			
Trigger Source		Free Run, External, Power, FMT			

Order Information

	Description	Order No.
Models	Real-time Spectrum Analyzer, 9 kHz to 3.2 GHz	RSA5032
	Real-time Spectrum Analyzer, 9 kHz to 3.2 GHz (with tracking generator, factory installed)	RSA5032-TG
	Real-time Spectrum Analyzer, 9 kHz to 6.5 GHz	RSA5065
	Real-time Spectrum Analyzer, 9 kHz to 6.5 GHz (with tracking generator, factory installed)	RSA5065-TG
Standard Accessories	Quick Guide (hard copy)	-
	Power Cord Conforming to the Standard of the Destination Country	-
Recommended Options	Vector Signal Analysis Measurement Application	RSA5000-VSA
	EMI Measurement Application	RSA5000-EMI
	Preamplifier (PA)	RSA5000-PA
	Highly Stable Clock	OCXO-C08
	Real-time Analysis Bandwidth 40 MHz	RSA5000-B40
	Advanced Measurement Kit	RSA5000-AMK
	Spectrum Analyzer PC Software (only supported in GPSA mode)	Ultra Spectrum
	EMI Pre-compliance Test Software (Alternative selection: RSA5000-EMI)	S1210 EMI Pre-compliance Software

For other options and accessories, please refer to "RF Accessories Selection Guide" .
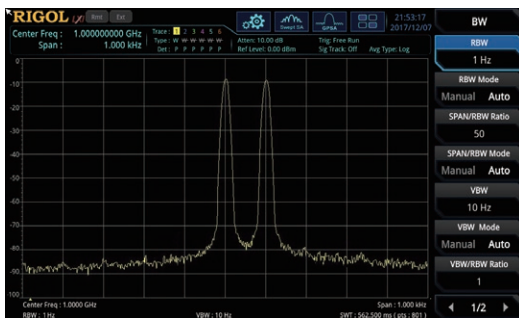
RSA3000/E Series Spectrum Analyzers

The RSA3000/E series real-time spectrum analyzer includes eight models: RSA3030, RSA3030-TG, RSA3045, RSA3045-TG, RSA3015E, RSA3015E-TG, RSA3030E, and RSA3030E-TG. Its frequency band ranges from 9 kHz to 1.5 GHz, 9 kHz to 3 GHz, and 9 kHz to 4.5 GHz. With patented technology Ultra Real, it can deliver excellent performance and best specifications. GPSA and RTSA are standard working modes. GPSA can realize the general function of the spectrum analyzer. In RTSA mode, it can seamlessly capture
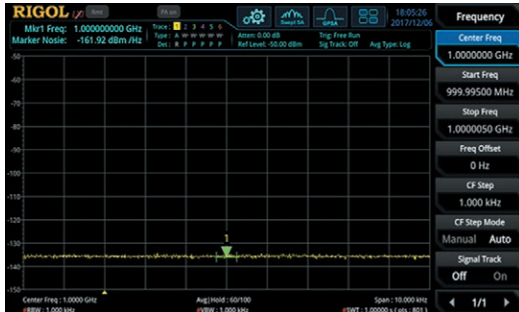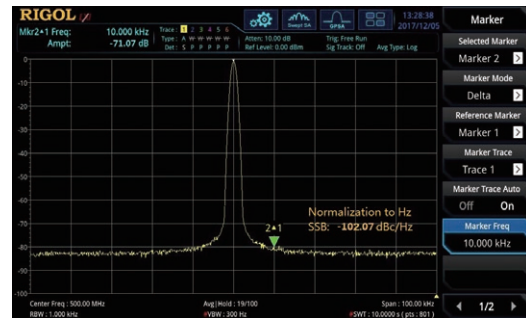
the transient signal, and display the measurement results completely in the Density view, Spectrum view, etc. The FMT trigger mode allows you to accurately capture the signal of interest. The VSA mode provides the analysis for the vector signal and displays several measurement analysis results. It is only available for RSA3000E, supporting only ASK and FSK. The EMI mode enables users to perform EMI pre-compliance test that meets the CISPR standards.

- Frequency stability: 0.5 ppm, option: 0.005 ppm
- Phase noise: <-102 dBc/Hz (typical)
- DANL: <-161 dBm (typical)
- RBW: 10 Hz to 3 MHz(1 Hz to 3 MHz for RSA3000E) Option:1 Hz to 10 MHz(unavailable to upgrade for RSA3000E)
- Full-scale accuracy: <1.0 dB
- Sweep rate: 1 ms
- Real-time bandwidth: 10 MHz, option: 25 MHz/40 MHz (unnecessary to upgrade for RSA3000E)
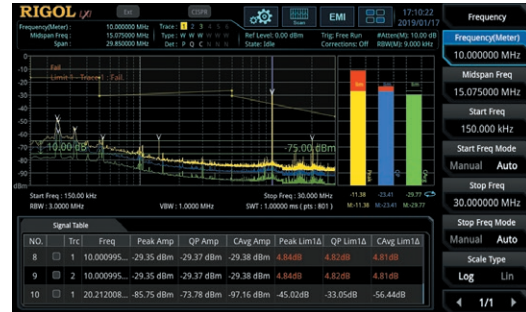- FFT rate: 146,484 FFTs/s

10.1" capacitive multi-touch screen; supporting several touch-enabled gestures

Excellent swept specifications; phase noise: -102dBc/Hz@10kHz offset dBc (min.)

RBW: 1 Hz (min.)

Analyze the frequency hopping signal in the RTSA mode

DANL as low as -161 dBm with optional preamp
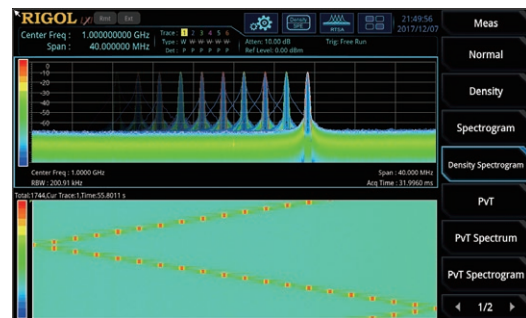
Powerful EMI pre-compliance test function

Key Specifications

		RSA3030/ RSA3030-TG	RSA3045/ RSA3045-TG	RSA3015E/RSA3015- TG	RSA3030E/ RSA3030E-TG
Frequency Range		9 kHz to 3GHz	9 kHz to 4.5 GHz	9 kHz to 1.5 GHz	9 kHz to 3 GHz
Frequency Stability	0℃ to 50℃, with the reference 25℃				
	Standard	<0.5 ppm			
	Option OCXO-C08	<0.005 ppm			
Phase Noise	10 kHz, f_c = 500 MHz	<-100dBc/Hz, <-102dBc/Hz(typical)			
Resolution Bandwidth (-3 dB)		10 Hz to 3 MHz (Option: 1 Hz to 10MHz), in 1-3-10 sequence		1 Hz to 3 MHz, in 1-3-10 sequence	
Resolution Bandwidth (-6 dB)(option)		200 Hz, 9 kHz, 120 kHz, 1 MHz			
Displayed Average Noise Level (DANL)		preamp on, attenuation = 0 dB, sample detector, trace averages ≥ 50, tracking generator off, normalized to 1 Hz, 20℃ to 30℃, input impedance = 50 Ω.			
		<-158 dBm, <-161 dBm (typical)			
Level Measurement Uncertainty		1.0 dB (nominal)			
TG Frequency Range (only for the model with the TG)		100 kHz to 3 GHz	100 kHz to 4.5 GHz	100 kHz to 1.5 GHz	100 kHz to 3GHz
TG Output Level Range (only for the model with the TG)		-40 dBm to 0 dBm	-40 dBm to 0 dBm	-40 dBm to 0 dBm	-40 dBm to 0 dBm
Real-time Analysis Bandwidth		10 MHz, 25 MHz (Option RSA3000-B25), 40MHz (Option RSA3000-B40)		10 MHz(real-time analysis bandwidth upgrade not supported)	
Full-scale Accuracy Min. signal duration for 100% POI at the full-scale accuracy		maximum span; default Kaiser Window			
		9.3 μs			
		7.82 μs (Option RSA3000-B25)		9.3 us	
		7.45 μs (Option RSA3000-B40)		9.3 us	
Window Type		Hanning, Blackman-Harris, Rectangular, Flattop, Kaiser, Gaussian			
FFT Rate		146,484 FFTs/s (nominal)			
SFDR		mixer level = -30 dBm			
		<-50 dBc/Hz (typical)			
Trigger Source		Free Run, External, Power, FMT			

Order Information

	Description	Order No.
Models	Real-time Spectrum Analyzer, 9 kHz to 3 GHz	RSA3030
	Real-time Spectrum Analyzer, 9 kHz to 4.5 GHz	RSA3045
	Real-time Spectrum Analyzer, 9 kHz to 1.5 GHz	RSA3015E
	Real-time Spectrum Analyzer, 9 kHz to 3 GHz	RSA3030E
	Real-time Spectrum Analyzer, 9 kHz to 3 GHz (with tracking generator, factory installed)	RSA3030-TG
	Real-time Spectrum Analyzer, 9 kHz to 4.5 GHz (with tracking generator, factory installed)	RSA3045-TG
	Real-time Spectrum Analyzer, 9 kHz to 1.5 GHz(with tracking generator, factory installed)	RSA3015E-TG
	Real-time Spectrum Analyzer, 9 kHz to 3 GHz (with tracking generator, factory installed)	RSA3030E-TG
Standard Accessories	Quick Guide (hard copy)	-
	Power Cord Conforming to the Standard of the Destination Country	-
Option	EMI Measurement Application (includes RSA3000-EMC,and RSA3000E)	RSA3000-EMI/RSA3000E-EMI
	Preamplifier (PA)	RSA3000-PA/RSA3000E-PA
	Highly Stable Clock	OCXO-C08
	Resolution Bandwidth 1 Hz to 10MHz (only available for non-E model)	RSA3000-BW1
	Real-time Analysis Bandwidth 25 MHz (only available for non-E model)	RSA3000-B25
	Real-time Analysis Bandwidth 40 MHz (only available for non-E model)	RSA3000-B40
	Advanced Measurement Kit	RSA3000-AMK/RSA3000E-AMK
	EMC Filter and Quasi-Peak Detector Kit	RSA3000-EMC/RSA3000E-EMC
	Spectrum Analyzer PC Software (only supported in GPSA mode)	Ultra Spectrum
	EMI Pre-compliance Test Software (RSA3000-EMI/RSA3000E-EMI recommended)	S1210 EMI Pre-compliance Software
	ASK/FSK Demodulation Analysis Option	RSA3000E-ASK/FSK (only support the E type model)

For other options and accessories, please refer to "RF Accessories Selection Guide" .

DSA800/E Series Spectrum Analyzers

In order to satisfy different customers' applications, there're lots of standard or optional function and accessories, for example, the pre-amplifier, Advanced Measurement kit, TG models, the VB series bridges and VSWR measurement function, ASK/FSK demodulation, EMI pre-compliance test software and so on.
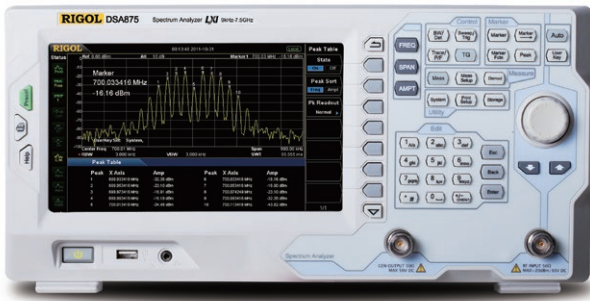
DSA800 and DSA800E series spectrum analyzer are the high performance economic level spectrum analyzers which have compact size and light weight. The digital IF technology guarantees their reliability and performance. The measurement frequency range is up to 7.5GHz.

- Frequency range from 9KHz to 7.5GHz
- Min. RBW 10 Hz
- Min. Displayed Average Noise Level -161 dBm
- Min. Phase Noise < -98 dBc/Hz @ 10 kHz Offset
- EMI Pre-compliance test
- VSWR Measurement
- Signal seamless capture mode (DSA815)
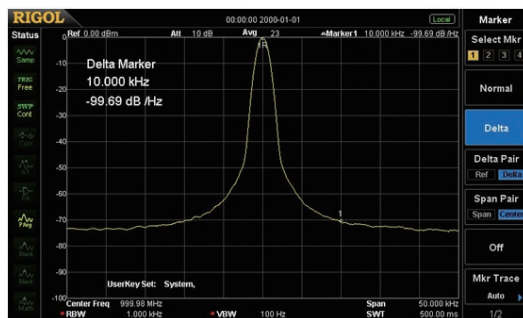- Powerful DSA PC software

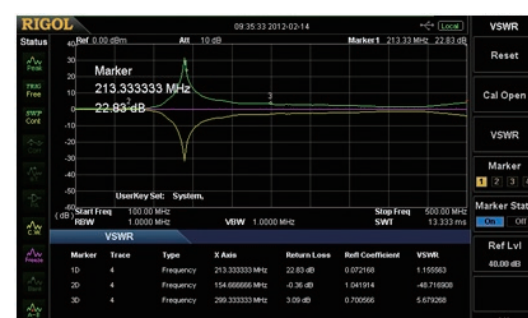### Distinguish the two nearby signals clearly with the 10 Hz RBW
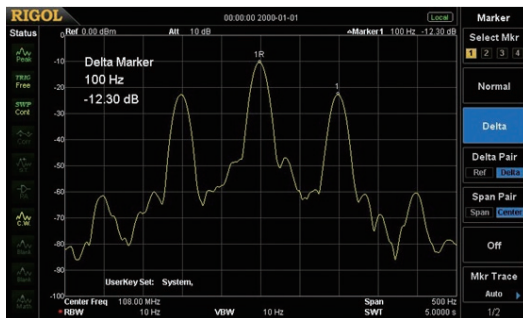
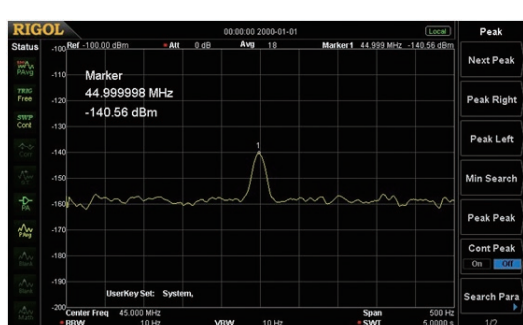### EMI kit (EMI flter & Quasi-peak & Pass/Fail)
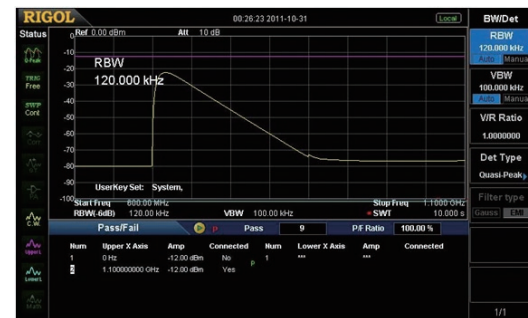
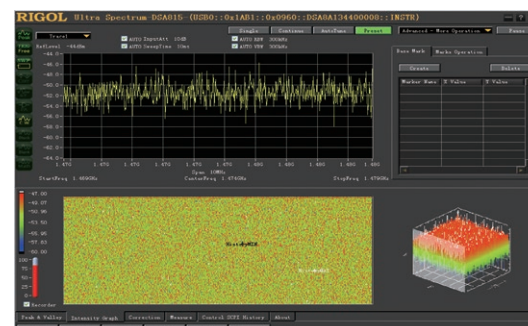### Phase noise < -98 dBc/Hz @10 kHz offset (DSA832/DSA875/DSA832E)

VSWR measurement

Measure lower level signal with the preamplifer turn on

Powerful DSA PC software

Key Specifications

	DSA815/DSA815-TG	DSA832E/DSA832E-TG	DSA832/DSA832-TG	DSA875/DSA875-TG
Frequency range	9 kHz to 1.5 GHz	9 kHz to 3.2 GHz	9 kHz to 3.2 GHz	9 kHz to 7.5 GHz
Frequency resolution	1 Hz			
Aging rate	<2 ppm/year	<2 ppm/year	<1 ppm/year	
SSB Phase Noise(fc=1GHz)	<-80 dBc/Hz@10kHz offset	<-90 dBc/Hz@10kHz offset offset <-98 dBc/Hz@10kH offset (typ.)	<-98 dBc/Hz@10kHz offset	
	<-100 dBc/Hz@100kHz offset (typ.)	<-100 dBc/Hz@100kHz offset (typ.)	<-100 dBc/Hz@100kHz offset (typ.)	
Resolution bandwidth (-3 dB)	10 Hz to 1 MHz, in 1-3-10 sequence			
Video bandwidth (-3 dB)	1 Hz to 3 MHz, in 1-3-10 sequence			
Resolution bandwidth (-6 dB)	200 Hz, 9 kHz, 120 kHz (EMI-DSA800 option)			
Displayed Average Noise Level (DANL)	PA on , attenuation = 0 dB, RBW = VBW = 100 Hz, sample detector, trace average ≥ 50, tracking generator off, normalized to 1Hz, 20℃ to 30℃ , input impendence = 50 Ω			
100 kHz to 1 MHz	<-130 dBm, <-150 dBm (typ.)	<-152 dBm (typ.)	<-152 dBm (typ.)	<-152 dBm (typ.)
1 MHz to 5 MHz	<-150 dBm + 6 × (f/1 GHz) dB, <-155 dBm (typ.)	<-150 dBm, <-155 dBm (typ.)	<-152 dBm, <-155 dBm (typ.)	<-152 dBm, <-155 dBm (typ.)
5 MHz to 1.5 GHz			<-157 dBm, <-161 dBm (typ.)	<-157 dBm, <-161 dBm (typ.)
1.5 GHz to 3.2 GHz		<-155 dBm, <-161 dBm (typ.)		
3.2 GHz to 6 GHz				<-153 dBm, <-157 dBm (typ.)
6 GHz to 7.5 GHz				<-148 dBm, <-152 dBm (typ.)
Trace detectors	normal, positive-peak, negative-peak, sample, RMS, voltage average, quasi-peak (with EMI-DSA800 option			
Trace functions	clear write, max hold, min hold, average, view, blank			
Units of level axis	dBm, dBmV, dBµV, nV, µV, mV, V, nW, µW, mW, W			
Level measurement uncertainty	<1.5 dB (nom.)	<1.0 dB (nom.)	<0.8 dB (nom.)	<0.8 dB (nom.)
TG Frequency range (-TG model)	100 kHz to 1.5 GHz	100 kHz to 3.2 GHz	100 kHz to 3.2 GHz	100 kHz to 7.5 GHz
TG Output level range (-TG model)	-20 dBm to 0 dBm	-40 dBm to 0 dBm		
TG Output level resolution (-TG model)	1 dB			
SSC Measurement bandwidth	1.5 MHz			
ASK/FSK Demodulation Analysis (PC option)		Support S1220 ASK-FSK Demodulation Analysis		
Interfaces	LAN(LXI), USB, USB-GPIB(Option)			

Ordering Information

	Description	Order Number
Models	spectrum analyzer, 9 kHz to 1.5 GHz	DSA815
	spectrum analyzer, 9 kHz to 3.2 GHz	DSA832
	spectrum analyzer, 9 kHz to 7.5 GHz	DSA875
	spectrum analyzer, 9 kHz to 3.2 GHz	DSA832E
	spectrum analyzer, 9 kHz to 1.5 GHz (with tracking generator, factory installed)	DSA815-TG
	spectrum analyzer, 9 kHz to 3.2 GHz (with tracking generator, factory installed)	DSA832-TG
	spectrum analyzer, 9 kHz to 7.5 GHz (with tracking generator, factory installed)	DSA875-TG
	spectrum analyzer, 9 kHz to 3.2 GHz (with tracking generator, factory installed)	DSA832E-TG
Standard accessories	quick guide (hard copy)	--
	power cable	--
Options	EMI filter & quasi-peak detector	EMI-DSA800
	advanced measurement kit	AMK-DSA800
	VSWR measurement kit	VSWR-DSA800
	DSA PC software	Ultra Spectrum
	signal seamless capture (only for DSA815)	SSC-DSA
	EMI Pre-compliance test software	S1210 EMI Pre-compliance Software
	ASK-FSK Demodulation Analysis (only for DSA832/DSA875/DSA832E)	S1220 ASK-FSK Demodulation Analysis Software
For other optional accessories, please refers to the "RF Accessories Selection Guide".		

DSA700 Series Spectrum Analyzers
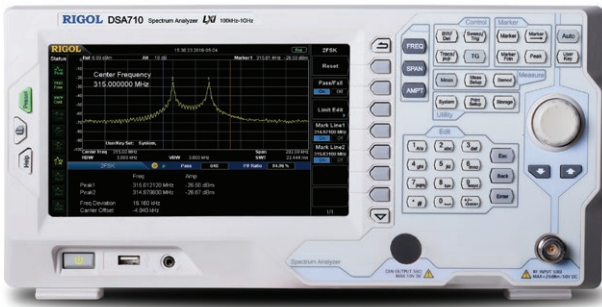
The measurement frequency range is from 100KHz to 1GHz. In order to satisfy different customers' applications, there're lots of standard or optional function and accessories, for example, the pre-amplifier, Advanced Measurement kit, signal seamless capture mode, EMI pre-compliance test software and so on.

DSA700 series spectrum analyzer are the high performance economic level spectrum analyzers which have compact size and light weight. The digital IF technology guarantees their reliability and performance.

- Frequency range from 100KHz to 1GHz
- Min. RBW 100 Hz
- Min. Displayed Average Noise Level -130 dBm
- Min. Phase Noise < -80 dBc/Hz @ 10 kHz Offset
- EMI Pre-compliance test
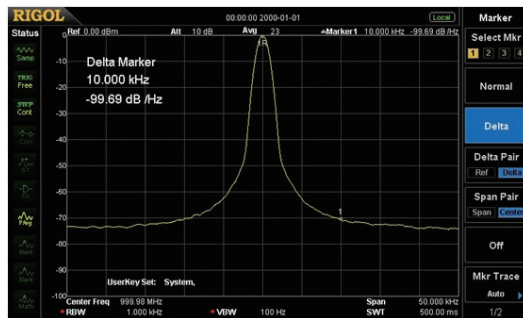- Signal seamless capture mode
- Powerful DSA PC software

Distinguish the two nearby signals clearly with the 100 Hz RBW
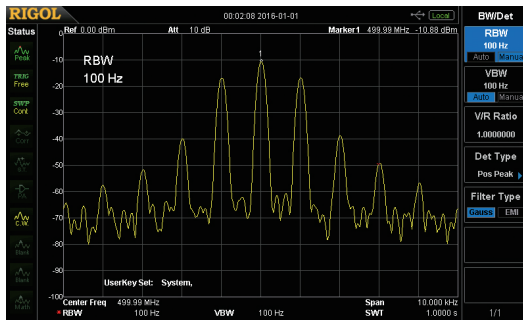
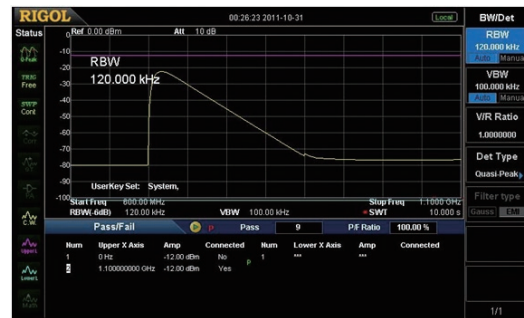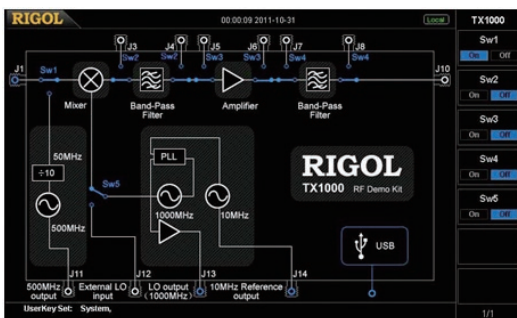### Compare the spectrums with different color trace
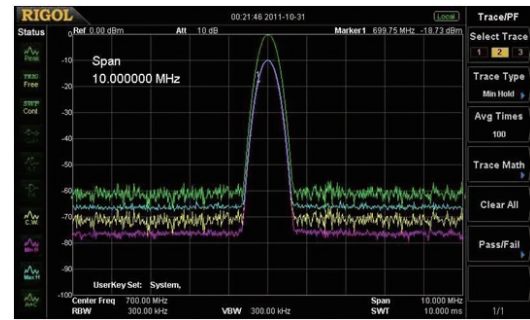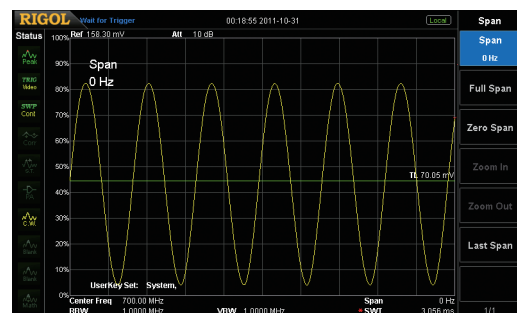
Phase noise < -80 dBc/Hz @10 kHz offset

EMI kit (EMI flter & Quasi-peak & Pass/Fail)
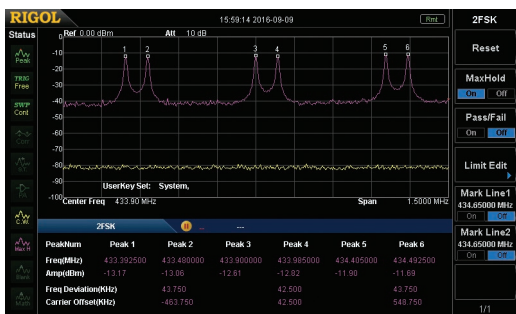
The GUI to control the RF demo kit (Transmitter) directly
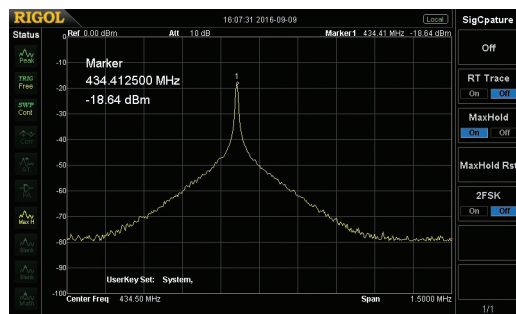
Zero span to demodulate the AM signal

Seamless capture RKE FSK signal

## Seamless capture RKE ASK signal

Key Specifications

	DSA705	DSA710
Frequency range	100 kHz to 500 MHz	100 kHz to 1 GHz
Frequency resolution	1 Hz	
Aging rate	<2 ppm/year	
SSB Phase Noise (fc=1GHz)	<-80dBc/Hz@10kHz offset	
Resolution bandwidth (-3dB)	100Hz ~ 1MHz; 1-3-10 step	
Resolution bandwidth (-6dB)	200Hz, 9kHz, 120KHz (EMI-DSA800 option)	
Video bandwidth (-3dB)	1 Hz ~ 3MHz, 1-3-10 step	
Max. DC voltage	50 V	
Max. CW RF power	attenuation = 30 dB, +20 dBm (100 mW)	
Max. damage level	+30 dBm (1 W)	
Displayed Average Noise Level (DANL)	PA ON, RBW=VBW=100Hz, sample detector, trace average ≥ 50	
100 kHz to 1 MHz	<-110 dBm, <-130 dBm (typical)	
1 MHz to 500 MHz	<-120 dBm, <-130 dBm (typical)	
500 MHz to 1 GHz		<-120 dBm, <-130 dBm (typical)
Trace detectors	normal, positive-peak, negative-peak, sample, RMS, voltage average,quasi-peak (with EMI-DSA800 option)	
Trace functions	clear write, max hold, min hold, average, view, blank	
Units of level axis	dBm, dBmV, dBµV, nV, µV, mV, V, nW, µW, mW, W	
Level measurement uncertainty	<1.5 dB (nom.)	
SSC Measurement bandwidth	1.5 MHz	
Interface	LAN (LXI), USB, USB-GPIB (option)	

Ordering Information

	Description	Order Number
Models	spectrum analyzer, 100 kHz to 500 MHz (with preamplifer)	DSA705
	spectrum analyzer, 100 kHz to 1 GHz (with preamplifer)	DSA710
Standard accessories	quick guide (hard copy)	--
	power cable	--
Options	EMI filter & quasi-peak detector	EMI-DSA800
	advanced measurement kit	AMK-DSA800
	DSA PC software	Ultra Spectrum
	Signal seamless capture	SSC-DSA
For other optional accessories, please refers to the "RF accessories selection table".		

EMI Test System[1] (S1210)
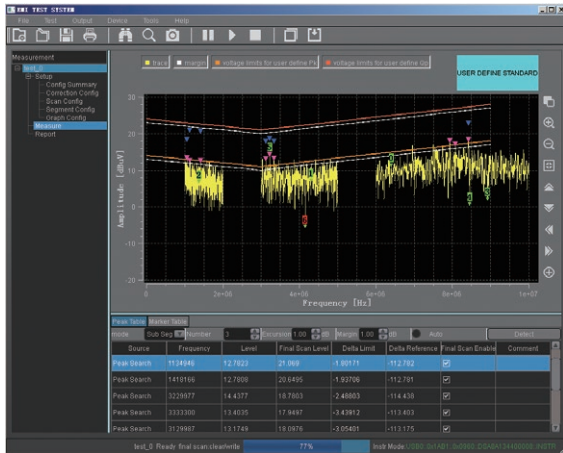
EMI Test System is a PC application software developed by RIGOL for RSA5000, RSA3000/E, DSA800, DSA800E and DSA700 series with the EMI-DSA800 option to do the EMI Pre-compliance tests.

You can perform conduction and radiation tests using S1210 EMI Pre-compliance Software and RIGOL RSA/DSA series spectrum analyzer. You can measure the interference voltage on the power cable using the linear impedance stability network (LISN) and perform amplitude correction on the results by loading the correction factor (preamplifier, attenuator, antenna, cable, or correction array) automatically in the radiation test.

This software also provides various functions to facilitate your measurements. You can set various parameters (such as the frequency range, resolution bandwidth, and scan time) via the scan table. After performing a scan, the results can be displayed in log or linear format. You can search for signal peak value and view the results displayed in the peak table. Besides, you can mark and delete the undesired signal, as well as easily recognize signals that do not pass the standard limit line. The software also supports the marker table. In the marker table, you can double click the table to add a marker to mark any frequency point that interests you.

- Provide amplitude correction function.
- Segment scanning and editing for the table to accelerate the measurement speed
- The limit line function can be used to quickly judge the measurement results.
- Provide fast pre-scan and final scan modes.
- Provide peak search function.
- Importing and exporting the peak table
- Frequency axis supports the scale display in linear or log format
- Amplitude axis supports multiple amplitude units
- Provide report generation function

Recommended Configuration

	Description	Order Number
Spectrum Analyzer	RSA5000/3000/3000E, DSA800/800E/700 series spectrum analyzer	Refer to RSA/DSA model numbers
	EMI filter & quasi-peak detector of RSA5000 series spectrum analyzer	RSA5000-EMC
	EMI filter & quasi-peak detector of RSA3000 series spectrum analyzer	RSA3000-EMC
	EMI filter & quasi-peak detector of RSA3000E series spectrum analyzer	RSA3000E-EMC
	EMI filter & quasi-peak detector of DSA800/800E/700 series spectrum analyzer	EMI-DSA800
EMI Software	EMI Test System Pre-Compliance Test software	S1210
Test Accessories	Near field probe (for near filed radiated EMI testing)	NFP-3
	Line Impedance Stabilization Network (LISN) (for conducted EMI testing)	3rd Party
	Antenna (for far field radiated EMI testing)	3rd Party

NFP-3 Near Field Probes

NFP-3 is used with RIGOL RSA/DSA series spectrum analyzer for the EMI tests of electronic products. It can be used to test the magnetic field strength and magnetic field coupling channels on the surface of the electronic components as well as the magnetic field environment near the electronic module so as to quickly locate the interference source. NFP-3 includes four models (NFP-3-P1, NFP-3-P2, NFP-3-P3 and NFP-3-P4).

Measurement Connections

The connection mode of NFP-3 and spectrum analyzer is as shown in the figure below.
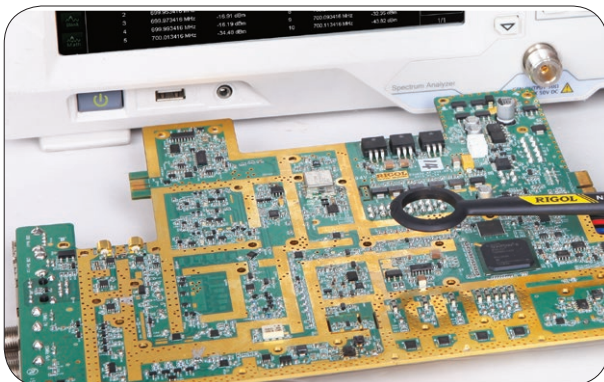
[1] Alternative selection: RSA5000-EMI & RSA3000-EMI

Connect the spectrum analyzer

Connect the SMB (M) terminal of NFP-3 and the BNC (F) terminal of the N-BNC adaptor respectively via the BNC-SMB RF cable; connect the N (M) terminal of the N-BNC adaptor to the RF input terminal of the spectrum analyzer.

Connect the device under test

NFP-3 is used to perform short-distance noncontact measurement on the device under test. Pay attention to the direction of the probe during measuring.

Typical Applications

Locate the EMI radiation interference source. Determine the frequency and relative strength of the spectral component of the interference source.

Specification

Frequency	
Frequency Range	30 MHz to 3 GHz
Terminal Type	
Terminal Type	SMB (M)
Adaptor	N (M)-BNC (F)
RF Cable	BNC (M)-SMB (F), 1000 mm
Terminal and Adaptor Impedance	50 Ω

Common RF Accessories

DSA Utility Kit
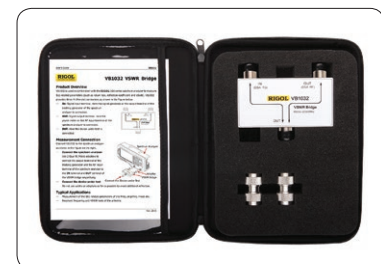

RF CATV Kit

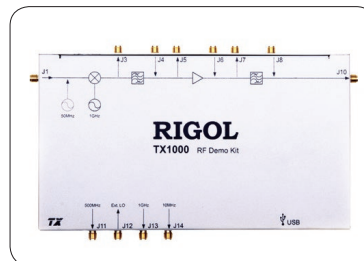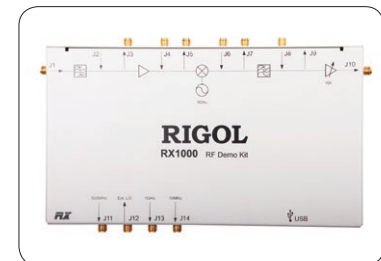30dB High Power Attenuator

RF Adaptor Kit

RF Attenuator Kit

VSWR Bridge

RF Cable

RF Demo Kit (Transmitter) TX1000

RF Demo Kit (Receiver) RX1000

RF Accessories Selection Guide

Options	Descriptions	RSA5065/–TG	RSA5032/–TG	RSA3030/–TG	RSA3045/–TG	RSA3030E/–TG	RSA3015E/–TG	DSA875/–TG	DSA832/–TG	DSA832E/–TG	DSA815/–TG	DSA710	DSA705
RSA5000-AMK	Advanced Measurement Kit. Include:T-Power,ACP(Adjacent Channel Power),ChanPwr(Channel Power),OBW(Occupied Bandwidth),EBW(Emission Bandwidth),C/N Ratio,HarmoDist(Harmonic Distortion),TOI(Third Order Inter modulation)	○	○										
RSA3000-AMK	Advanced Measurement Kit. Include:T-Power,ACP(Adjacent Channel Power),ChanPwr(Channel Power),OBW(Occupied Bandwidth),EBW(Emission Bandwidth),C/N Ratio,HarmoDist(Harmonic Distortion),TOI(Third Order Inter modulation)			○	○								
RSA3000E-AMK	Advanced Measurement Kit. Include: T-Power, ACP (Adjacent Channel Power), ChanPwr (Channel Power), OBW (Occupied Bandwidth), EBW (Emission Bandwidth), C/N Ratio, HarmoDist (Harmonic Distortion), TOI (Third Order Inter modulation), and Pass/Fail test					○	○						
AMK-DSA800	Advanced Measurement Kit. Include:T-Power,ACP(Adjacent Channel Power),ChanPwr(Channel Power),OBW(Occupied Bandwidth),EBW(Emission Bandwidth),C/N Ratio,HarmoDist(Harmonic Distortion),TOI(Third Order Inter modulation)							○	○	○	○	○	○
RSA5000-VSA	Vector Signal Analysis Measurement Application	○	○										
RSA5000-EMC	EMI filter & quasi-peak detector	●	●										
RSA3000-EMC	EMI filter & quasi-peak detector			○	○								
RSA3000E-EMC	EMI filter & quasi-peak detector					○	○						
RSA5000-EMI	EMI Measurement Application	○	○										
RSA3000-EMI	EMI Measurement Application(including RSA3000-EMC)			○	○								
RSA3000E-EMI	EMI Measurement Application (including RSA3000E-EMC)					○	○						
EMI-DSA800	EMI filter & quasi-peak detector							○	○	○	○	○	○
VSWR-RSA5000	VSWR Measurement Kit.Measurement results include return loss,reflection coefficient and VSWR.(Work with VSWR bridge)	●	●										
VSWR-RSA3000	VSWR Measurement Kit.Measurement results include return loss,reflection coefficient and VSWR.(Work with VSWR bridge)			●	●	●	●						
VSWR-DSA800	VSWR Measurement Kit.Measurement results include return loss,reflection coefficient and VSWR.(Work with VSWR bridge)							○	○	○	○		
S1210	EMI test PC software for EMI Pre-Compliance testing	○	○	○	○	○	○	○	○	○	○	○	○
Ultra Spectrum	DSA PC software	○	○	○	○	○	○	○	○	○	○	○	○
S1220	ASK/FSK Demodulation function							○	○	○			
SSC-DSA	Signal Seamless Capture function	●	●	●	●	●	●				○	○	○
RSA5000-PA	Preamplifier(for RSA5000 only)	○	○										
RSA3000-PA	Preamplifier(for RSA3000 only)			○	○								
RSA3000E-PA	Preamplifier (available for RSA3000E)					○	○						
PA-DSA800	Preamplifier							●	●	●	●	●	●
RSA500-B40	Real-time Analysis Bandwidth 40 MHz	○	○										
RSA3000-B25	Real-time Analysis Bandwidth 25 MHz (not available for the E type model)			○	○								
RSA3000-B40	Real-time Analysis Bandwidth 40 MHz (not available for the E type model)					○	○						
OCXO-C08	Highly Stable Clock	○	○	○	○	○							
NFP-3	Near Field Probe,30MHz~3GHz,4pcs	○	○	○	○	○	○	○	○	○	○	○	○
DSA Utility Kit	Include: N-SMA Cable, BNC-BNC Cable, N-BNC Adapter, N-SMA Adapter, 75Ω-50ΩAdapter,Antenna2(900MHz/1.8GHz),Antenna2(2.4GHz)	○	○	○	○	○	○	○	○	○	○	○	○
RF Adaptor Kit	Include:N(F)-N(F) Adaptor(1pcs),N(M)-N(M) Adaptor(1pcs),N(M)-SMA(F) Adaptor(2pcs),N(M)-BNC(F) Adaptor(2pcs),SMA(F)-SMA(F) Adaptor(1pcs),SMA(M)-SMA(M) Adaptor(1pcs),BNC Ttype Adaptor(1pcs),50Ω SMA Load(1pcs),50Ω Impedance Adaptor(1pcs)	○	○	○	○	○	○	○	○	○	○	○	○
RF CATV Kit	Include:50Ω to 75Ω Adaptor (2 pcs)	○	○	○	○	○	○	○	○	○	○	○	○
RF Attenuator Kit	Include:6dB Attenuator (1 pcs),10dB Attenuator (2 pcs)	○	○	○	○	○	○	○	○	○	○	○	○
ATT03301H	30dB High Power Attenuator,Max.Power 100 W	○	○	○	○	○	○	○	○	○	○	○	○
CB-NM-NM-75-L-12G	N (M) - N (M) RFCable,upto 12.4 GHz	○	○	○	○	○	○	○	○	○	○	○	○
CB-NM-SMAM-75-L-12G	N (M) - SMA (M) RF Cable,up to 12.4 GHz	○	○	○	○	○	○	○	○	○	○	○	○
TX1000	RF Demo Kit (Transmitter)							○	○	○	○	○	○
RX1000	RF Demo Kit (Receiver)							○	○	○	○	○	○
VB1032[1] only available for the model with the TG	VSWR Bridge (1 MHz to 3.2 GHz)	○	○	○	○	○	○	○	○	○	○		
VB1040[1] only available for the model with the TG	VSWR Bridge (800 MHz to 4 GHz)	○	○	○	○	○	○	○	○	○	○		
VB1080[1] only available for the model with the TG	VSWR Bridge (2 GHz to 8 GHz)	○	○	○	○	○	○	○	○	○	○		
RM6041	Rack Mount Kit	○	○	○	○	○	○						
RM-DSA800	Rack Mount Kit							○	○	○	○	○	○
USB-GPIB	USB to GPIB Interface Converter for Instrument							○	○	○	○	○	○
BAG-G1	Soft Carrying Bag (for DSA800 series only)							○	○	○	○	○	○

● Standard function   ○ Options   [1] Option gift:VSWR-DSA800