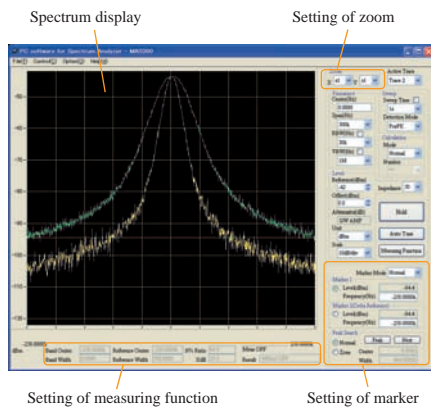


Option

PC software MAS300



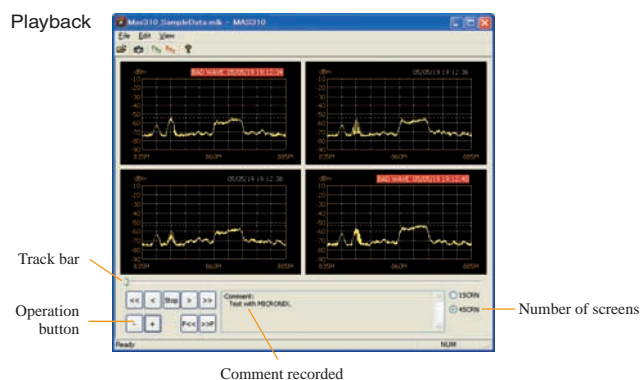
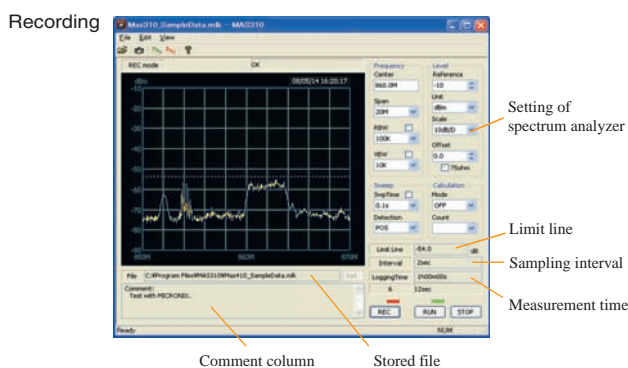
MAS300 is a software that controls the spectrum analyzers of four models by the PC. 1001 points are captured in the spectrum analyzer. Although 251 points are displayed on its screen, the number of points transferred to the PC is all of 1001 points.

The screen image is stored by BMP format and the spectrum is stored by CSV format each point (frequency and level).

Logging software MAS310

MAS310 is a logging software that collects the measurement data by uninhabited. It is optimum for watching an abnormal signal at night and recording the data by uninhabited for a long time.

- Logging at specified frequency band, sampling interval and measurement time.
- Makes it possible to fast-forward and fast-rewind the images in the file like a video recorder, and moreover, to jump to the image with spectrum exceeding the limit line.
- ERROR is automatically displayed when the signal exceeding the limit line is input.



VSWR bridge MVS300



Frequency range : 5 to 3000MHz
 Directivity : more than 40dB @ 50 to 3000MHz
 more than 25dB @ 5 to 50MHz
 Insertion loss :
 less than 7dB @ SOURCE to DUT
 less than 8dB @ DUT to REFLECTED
 Dimensions : 50(W)×31(H)×114(D)mm
 Weight : approx.240g
 Connectors : SMA(J) (for three ports)

Dipole antenna M301 to M306



Model	Freq.range	Antenna gain	VSWR	Dimensions	Weight
M301	0.8 to 1GHz	> 1dBi	< 1.5	7.5 φ × 250mm	approx.20g
M302	1.25 to 1.65GHz	> 1dBi	< 1.5	7.5 φ × 250mm	approx.20g
M303	1.7 to 2.2GHz	> 1dBi	< 1.5	7.5 φ × 180mm	approx.15g
M304	2.25 to 2.65GHz	> 1dBi	< 1.5	7.5 φ × 180mm	approx.15g
M305	300 to 500MHz	> 1dBi	< 1.5	8.0 φ × 195mm	approx.30g
M306	4.7 to 6.2GHz	> 1dBi	< 1.5	7.5 φ × 120mm	approx.10g

- 1) Antenna gain and VSWR are specified at a center of frequency range.
- 2) Connector : SMA(P)

Magnetic field probe CP-2S



Frequency range : 10MHz to 3GHz
 Space resolution : approx.0.25mm
 (depending on objects)
 Dimensions : outside 12 φ × 135mm
 probe tip 2mm(W)×1mm(T)
 Connector : SMA(P)

Printer



(With AC adaptor)
 (and one rollpaper)

※ Option : Rollpaper (10 rolls)

Printing method : Thermal line dot method
 Paper : 80mm width thermal paper
 Power source :
 internal : AA-sized alkaline battery (4 pcs)
 external : 7.5VDC/3A (dedicated AC adaptor)
 Dimensions : 134(W)×60(H)×180(D)mm
 Weight : approx.450g (mainframe only)
 Interface : RS-232C

Frequency counter (factory option)

Items	Specifications
Freq.range	1MHz to 3.3GHz@MSA338/338TG/338E 1MHz to 8.5GHz@MSA358
Measured level	+10 to -70dBm@1MHz to 2GHz,RBW100kHz +10 to -60dBm@2GHz to 8.5GHz,RBW100kHz
Measurement resolution	100Hz
Display digits	8 digits max
Reference x'tal	Accuracy : ±2ppm@23℃ Temp.characteristics : ±5ppm@0 to 40℃

Ni-MH battery MB300



4.8V/4200mAh

Charger MBC300



AC adaptor MA300 which is a standard accessory of spectrum analyzer MSA300 series is used for power source of this charger.

Input voltage : DC5V±0.25V

Input current : 4A max

Charging time : roughly two hours

RS-232C/GP-IB converter ZS-6144TM



It is possible to use the spectrum analyzer as an instrument with GP-IB interface.

The data transfer can be performed not related to GP-IB state because RS-232C side is equipped with full duplex mode and buffer memory.

(With AC adaptor and 25P/9P conversion connector)

Buffer memory capacity : 8K bytes
(both of input/output)

Dimensions : 130(W)×40(H)×200(D)mm

Weight : approx.1.8kg

Coaxial attenuator MG-XXdB

Model	Attenuation error		V S W R	Rated power
	DC to 12.4GHz	12.4GHz to 18GHz		
MG-1dB, 2dB, 3dB, 4dB	<±0.5dB	<±1dB	<1.15@DC to 4GHz <1.2@4 to 12.4GHz <1.3@12.4 to 18GHz	1W
MG-5dB, 6dB, 7dB, 8dB	<±0.7dB	<±1.2dB		
MG-9dB, 10dB, 12dB, 13dB	<±1.0dB	<±1.25dB		
MG-14dB, 15dB, 20dB	<±1.2dB	<±1.3dB		
MG-30dB	<±1.2dB@DC to 8GHz			

※Connector, impedance : SMA(P)/SMA(J), 50Ω

Terminator

Model	Freq.range	V S W R				Rated power	Connector
		DC to 4GHz	4 to 8GHz	8 to 12.4GHz	12.4 to 18GHz		
MG-50S	DC to 18GHz	<1.08	<1.10	<1.15	<1.20	0.25W	SMA(P)
MG-50N	DC to 8GHz	<1.2@DC to 8GHz				2W	N(P)

※Impedance : 50Ω

Coaxial cable

Model	Connector	Length	Freq.range
MC102	SMA(P)/BNC(P)	1.5m	DC to 2GHz
MC201	SMA(P)/SMA(P)	0.5m	DC to 18.5GHz
MC202	SMA(P)/SMA(P)	3m	DC to 18.5GHz
MC203	SMA(P)/SMA(P)	4m	DC to 18.5GHz
MC204	SMA(P)/SMA(P)	1.5m	DC to 12.4GHz
MC301	SMA(P)/SMA(P)	0.5m	DC to 10GHz
MC302	SMA(P)/SMA(P)	1m	DC to 10GHz
MC303	SMA(P)/SMA(P)	1.5m	DC to 10GHz
MC304	SMA(P)/N(J)	0.2m	DC to 4GHz
MC305	SMA(P)/N(P)	0.2m	DC to 4GHz
MC306	SMA(P)/BNC(J)	0.2m	DC to 2GHz
MC307	SMA(P)/BNC(P)	0.2m	DC to 2GHz
MC308	N(P)/N(P)	0.5m	DC to 10GHz
MC309	N(P)/N(P)	1m	DC to 10GHz
MC310	N(P)/N(P)	1.5m	DC to 10GHz
MC311	N(P)/SMA(J)	0.2m	DC to 10GHz
MC312	N(P)/BNC(J)	0.2m	DC to 2GHz
MC313	N(P)/BNC(P)	0.2m	DC to 2GHz
MC314	BNC(P)/BNC(P)	1.5m	DC to 2GHz

※Impedance : 50Ω

Adaptor

Model	Connector	Impedance	Freq.range
MA301	BNC(P)/BNC(J)	50Ω/75Ω	DC to 2GHz
MA302	BNC(P)/N(J)	75Ω/75Ω	DC to 1.8GHz
MA303	BNC(P)/N(P)	75Ω/75Ω	DC to 1.8GHz
MA304	BNC(P)/F(J)	75Ω/75Ω	DC to 1.8GHz
MA305	BNC(P)/F(P)	75Ω/75Ω	DC to 1.8GHz
MA306	N(P)/SMA(J)	50Ω/50Ω	DC to 12.4GHz
MA307	N(P)/BNC(J)	50Ω/50Ω	DC to 2GHz
MA308	N(P)/BNC(J)	50Ω/75Ω	DC to 2GHz
MA309	N(J)/BNC(P)	50Ω/50Ω	DC to 2GHz

RS-232C cable MI180



Connector : D-sub 9pins
Length : 1.5m