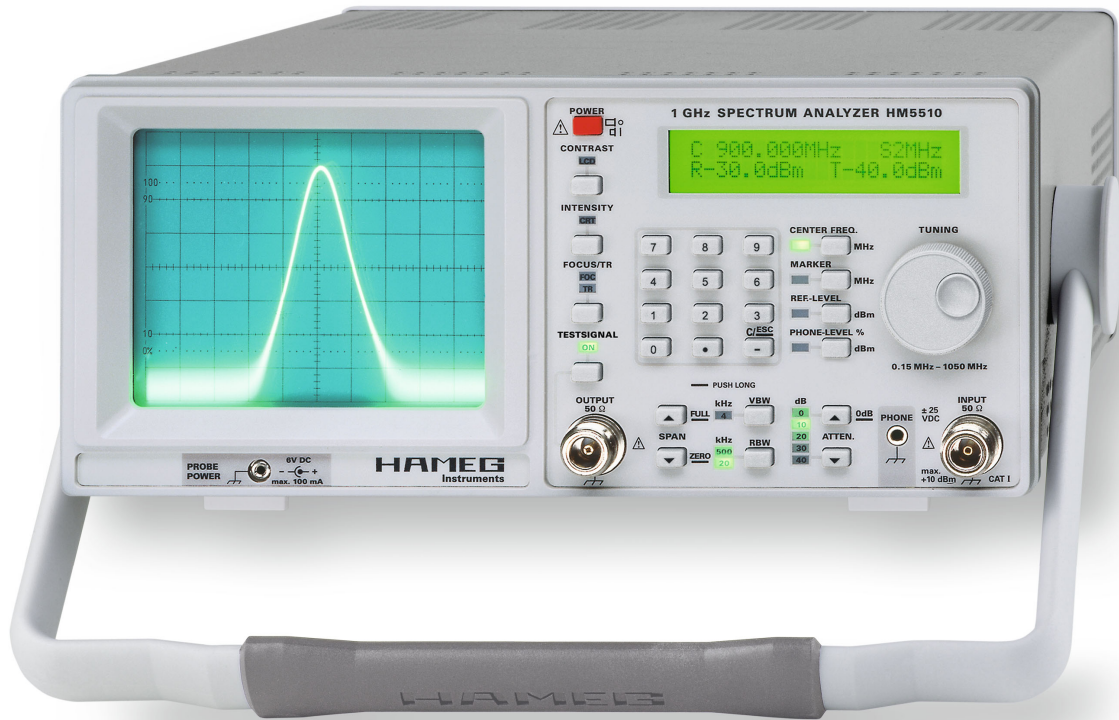


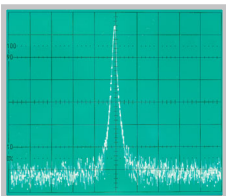
1 GHz Spectrum Analyzer HM5510



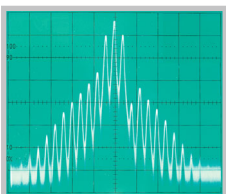
HM5510

- ☒ Frequency range 150 kHz...1 GHz
- ☒ Amplitude measurement range -100 dBm...+10 dBm
- ☒ Phase Synchronous, Direct Digital frequency Synthesis (DDS)
- ☒ Resolution bandwidths (RBW): 20 kHz and 500 kHz
- ☒ Keypad for frequency and amplitude setting
- ☒ Analog signal processing and display
- ☒ Test signal output

Unmodulated RF signal



Amplitude-modulated RF signal



1 GHz Spectrum Analyzer HM5510

All data valid at 23 °C after 30 minute warm-up

Frequency Characteristics

Frequency Range:	0.15 MHz...1.050 GHz
Stability:	±5 ppm
Aging:	±1 ppm/year
Frequency Resolution:	1 kHz (6½-digit in readout)
Center Frequency Range:	0...1.050 GHz
LO Frequency Generation:	TCXO with DDS (Digital Frequency Synthesis)
Span Setting Range:	Zero-Span and 1 MHz...1000 MHz (1-2-5 Sequence)
Marker:	
Frequency Resolution:	1 kHz, 6½-digit,
Amplitude Resolution:	0.5 dB, 3½-digit
Resolution Bandwidths (RBW) @ 3dB:	500 kHz and 20 kHz
Video filter (VBW):	4 kHz
Sweep Time:	20 ms

Amplitude Characteristics (Marker Related) 150 kHz...1 GHz

Measurement Range:	-100 dBm...+10 dBm
Scaling:	10 dB/div.
Display Range:	80 dB (10dB/div.)
Amplitude Frequency Response (at 10 dB Attn., Zero Span and RBW 500 kHz, Signal – 20 dBm):	± 3 dB
Display (CRT):	8 x 10 division
Amplitude Scale:	logarithmic
Display Units:	dBm
Parameter Display (LCD):	2 Lines x 20 Characters, Center Frequency, Span, Marker Frequency, Reference Level, Marker Level
Input Attenuator Range:	0...40 dB (10 dB increments)
Tolerance of input attenuator:	± 2 dB relative to 10 dB position
Max. Input Level (continuous)	
10...40 dB attenuation:	+ 20 dBm (0.1 W)
0 dB attenuation:	+ 10 dBm
Max. DC Voltage:	± 25 V
Max. Reference Level:	-50 dBm...+ 10 dBm
Reference Level Accuracy rel. to 500 MHz, 10 dB Attn., Zero Span and RBW 500 kHz:	± 2 dB
Min. Average Noise Level:	approx. -100 dBm (RBW 20 kHz)
Intermodulation Ratio (3 rd Order):	typical > 75 dBc (2 Signals: 200 MHz, 203 MHz, -3 dB below Reference Level)
Harmonic Distortion Ratio (2 nd harm.):	typical > 75 dBc (200 MHz, Reference Level)
Bandwidth Dependent Amplitude Error rel. to RBW 500 kHz and Zero Span:	± 1 dB

Inputs / Outputs

Measurement Input:	N-socket
Input Impedance:	50 Ω
VSWR: (Attn. ≥ 10 dB)	typ. 1.5 : 1
Supply Voltage for Probes (HZ530):	6 V DC
Audio output (phone):	3.5 mm Ø jack
Test Signal output:	N-socket, output Impedance 50 Ω
Frequency:	10 MHz
Level:	0 dBm (±3 dB)

Functions

Keyboard Input:	Center Frequency, Reference Level,
Rotary Encoder Input:	Center Frequency, Reference Level, Testsignal output Level, Marker, Intensity (CRT), Contrast (LCD)

General information

CRT:	D14-363GY, 8 x 10 div. with internal graticule
Acceleration Voltage:	approx. 2 kV
Trace Rotation:	adjustable on front panel
Power Supply:	105...253 V, 50/60 Hz ± 10 %, CAT II
Power Consumption:	approx. 31 W at 230 V/50 Hz
Safety class:	Safety class I (EN61010-1)
Operating temperature:	+5°C...+40°C
Storage temperature:	-20°C...+70°C
Rel. humidity:	5%...80% (non condensing)
Dimensions (W x H x D):	285 x 125 x 380 mm, with adjustable, lockable tilt handle
Weight:	approx. 5.6 kg

Accessories supplied: Line Cord, Operators Manual, HZ21 Adapter Plug (N-plug with BNC socket)

Optional accessories:

HZ520 Antenna
HZ530 Near Field Probe Set for EMI Diagnosis

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