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## Test & Measurement

- sales
- rentals
- calibration
- repair
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## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the “Click-to-Call” logo below, you can call us for FREE!

TMG Corporate Website

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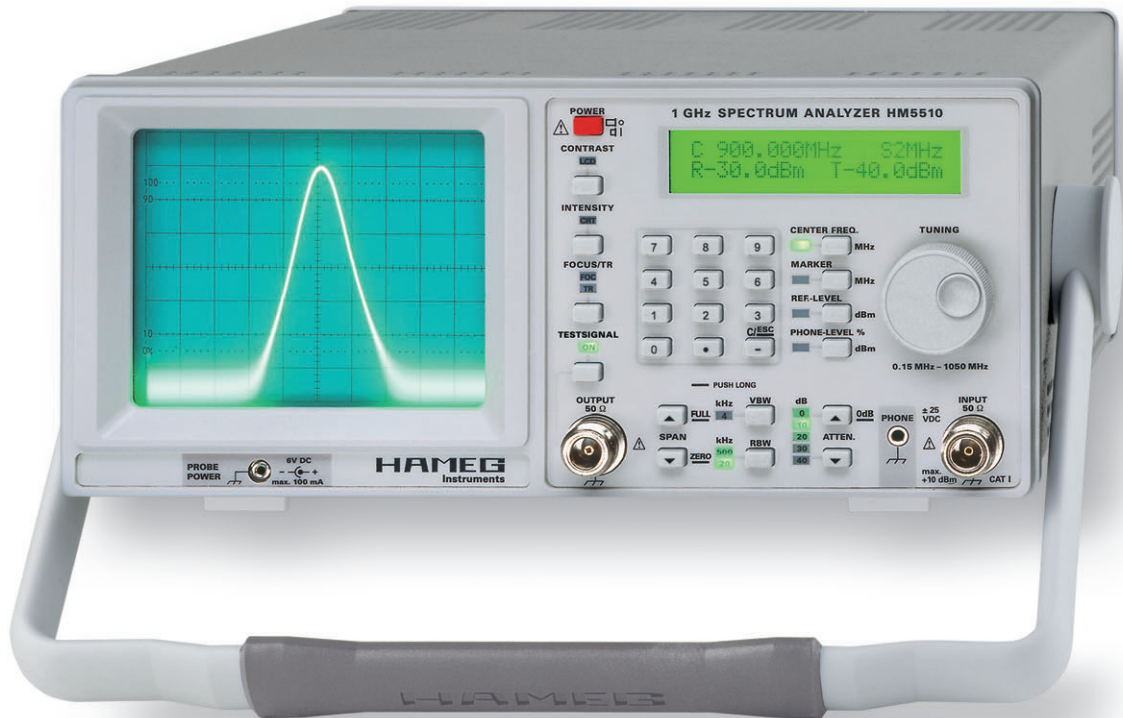
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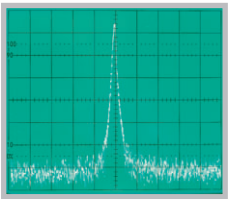


# 1 GHz Spectrum Analyzer HM5510

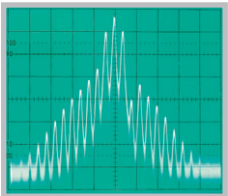


HM5510

Unmodulated RF signal



Amplitude-modulated RF signal



Frequency range from 150 kHz to 1 GHz

Amplitude measurement range from -100 dBm to +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

## 1 GHz Spectrum Analyzer HM5510

Valid at 23 °C after a 30 minute warm-up period

### Frequency Characteristics

Frequency Range:	0.15 MHz to 1.050 GHz
Stability:	±5 ppm
Ageing:	±1 ppm/year
Frequency Resolution:	1 kHz (6½-digit in readout)
Center Frequency Range:	0 to 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 to +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 to +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 <sup>rd</sup> Order):	typical > 75 dBc (2 Signals: 200 MHz, 203 MHz, -3 dB below Reference Level)
Harmonic Distortion Ratio (2 <sup>nd</sup> 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
Rotary Encoder Input:	Center Frequency, Reference Level, Testsignal output Level, Marker, Intensity (CRT), Contrast (LCD)

### General information

CRT:	D14-363GY, 8 x 10 cm with internal graticule
Acceleration Voltage:	approx. 2 kV
Trace Rotation:	adjustable on front panel
Ambient Temperature:	+10 °C to +40 °C
Power Supply:	105 – 253 V, 50/60 Hz ± 10 %, CAT II
Power Consumption:	approx. 31 W at 230V/50 Hz
Safety class:	Safety class I (EN61010-1)
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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