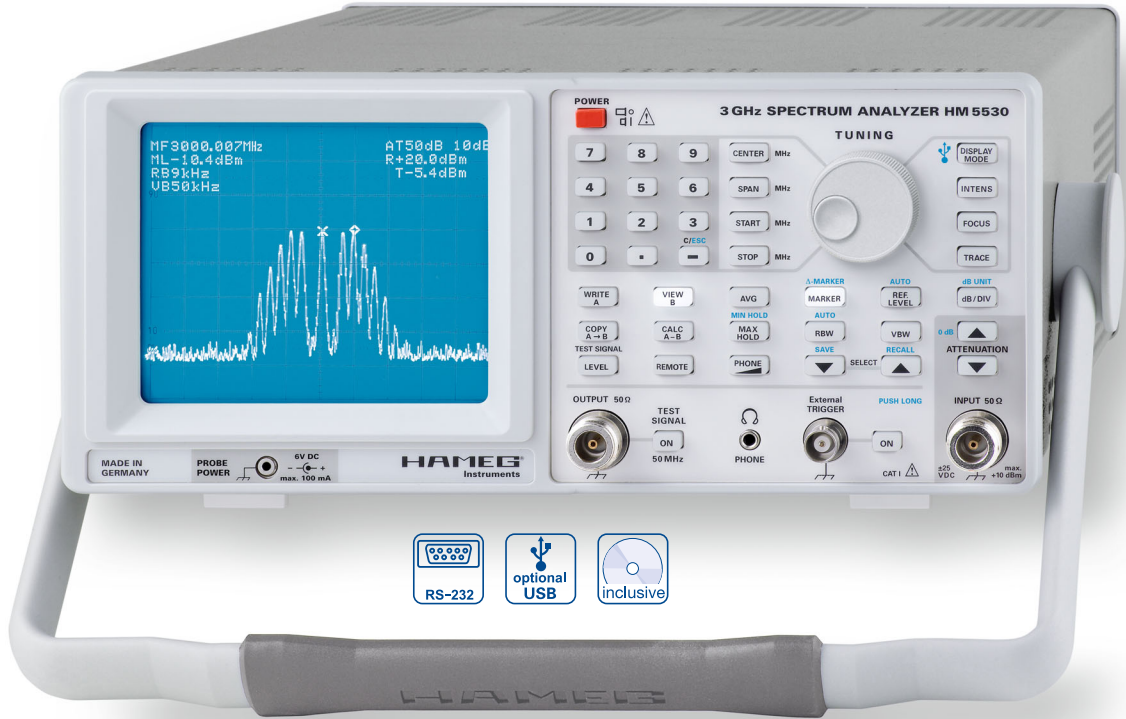




3 GHz Spectrum Analyzer HM5530

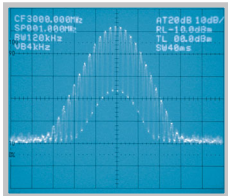
HM5530



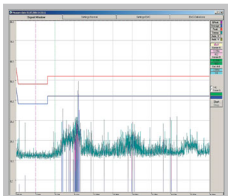
Dual RS-232/USB Interface
(Option)



Amplitude modulated
3GHz signal



Measurement of
line-conducted interference



- Frequency range 100kHz...3GHz
- Amplitude measurement range -110dBm...+20dBm
- Phase Synchronous, Direct Digital frequency Synthesis (DDS)
- Resolution bandwidths (RBW): 9 kHz, 120kHz and 1MHz
- YIG oscillator
- Pre-compliance EMI measurements
- Software for extended measurement functions for EMI measurements included
- RS-232 Interface
optional: USB/RS-232 for documentation and control

3 GHz Spectrum Analyzer HM5530

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

Frequency characteristics

Frequency range:	100 kHz...3 GHz
Frequency generation:	TXCO with DDS (Digital Frequency Synthesis)
Stability:	± 1 ppm
Aging:	± 1 ppm/year
Frequency resolution:	1 kHz (6½-digit readout)
Center frequency range:	0...3 GHz
Tolerance of center frequency:	± 1 kHz
Span setting range:	0 (zero span) and 1...3000 MHz

Amplitude characteristics

Display range:	-110 dBm...+20 dBm
Scaling, units:	10 or 5 dB/div, selectable dBm, dBmV, dBµV
Dynamic range:	80 dB (10 dB/div), 40 dB (5 dB/div)
Amplitude frequency response (ATT 10 dB, zero span, 1 MHz-RBW signal level -20 dBm):	± 3 dB
Display (CRT):	8 div. x 10 div.
Display characteristic:	logarithmic
Display units:	dB (dBm, dBmV, dBµV)
Input attenuator:	0...50 dB in 10 dB increments
Tolerance of input attenuator:	± 2 dB relative to 10 dB position
Maximum continuous input level:	
Attenuation 10...50 dB:	+20 dBm (0.1 W)
Attenuation 0 dB:	+10 dBm
Maximum input dc voltage:	± 25 V
Reference level:	
Adjustment range:	-110 dBm...+20 dBm
Tolerance (1500 MHz, ATT 10 dB, Zero Span, RBW 1 MHz):	± 1 dB
Min. average noise level (RBW 9 kHz):	
150 kHz...1.5 MHz:	-90 dBm
1.5 MHz...2.6 GHz:	-100 dBm
2.6 GHz...3.0 GHz:	-90 dBm

3rd order intermodulation:

2 signals of -33 dBm each,
frequency difference > 3 MHz: > 75 dBc

Harmonic distortions (2nd harmonic at a signal level of -30 dBm, ATT 0 dB, frequency difference > 3 MHz): > 75 dBc

Bandwidth dependent Amplitude error rel. to

RBW 1 MHz, Zero Span:	± 1 dB
Digitization:	± 1 Digit (0.4 dB) at 10 dB/div scaling [average, zero span]

Marker/Deltamarker

Frequency resolution:	span/2000, max. 1 kHz, 6½-digit
Frequency accuracy:	± [1 kHz + tolerance of center frequency + 0.02% x span]
Amplitude resolution:	0,4 dB, 3½-digit

Bandwidths

Resolution bandwidths (RBW) at -6 dB: 1 MHz, 120 kHz, 9 kHz

Videobandwidth (VBW): 50 kHz, 4 kHz

with automatic selection of sweep time:

40, 80, 160, 320 and 1000 ms

Inputs/Outputs

Measuring input:	N connector
Input impedance:	50 Ω
VSWR (ATT 10 dB):	typ. 1,5 : 1
Testsignal output:	N connector
Output impedance:	50 Ω
Frequency:	50 MHz ± 1 kHz
Level:	-10...0 dBm (in 0.2 dB-increments)
Accuracy of level:	± 3 dB @ 0 dBm
Supply voltage for field probes	6 V _{DC} , max. 100 mA (2.5 mm DIN jack)

Audio output (Iphone):	3.5 mm DIN jack
RS-232 interface:	9-pin. sub-D
External trigger input:	BNC connector
Digital signal:	
Low level:	0...+0,8 V
High level:	+2.5 V...+5.0 V

Functions

Keyboard input:	Center frequency, span, start frequency, stop frequency, marker, delta marker, reference level, test signal level
Rotary encoder input:	Center frequency, span, start frequency, stop frequency, marker, delta marker, reference level, test signal level intensity, focus, trace rotation, volume
Max. Hold Detection:	Peak Value Acquisition
Quasi-Peak Detection:*	Quasi-Peak Valuation
AVG (average):	Averaging
Reference spectrum:	memory depth 2 k x 8 Bit
SAVE/RECALL:	Storage and recall of up to 10 instrument settings
AM demodulation:	for the PHONE output
REMOTE:	Display of remote/local control via RS-232 interface
Readout:	8 parameter display fields, display of key board inputs

Miscellaneous

Display (CRT):	D 14-363GY, 8 div. x 10 div. internal graticule
Acceleration voltage:	approx. 2 kV
Trace rotation:	adjustable on front panel
Power supply:	105...254 V _{AC} , 50...60 Hz, approx. 37 W CAT II
Safety class:	I (EN/IEC 61010-1) with protective earth
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 Adjustable handle, as a tilt-stand or for convenient carrying
Weight:	approx. 6.5 kg

*) in combination with software AS300E

Accessories supplied: Line cord, manual, CD-ROM, HZ21 Adapter N male to BNC female

Optional accessories:

H0720 Dual-Interface USB/RS-232
HZ70 Opto-Interface (with optical fiber cable)
HZ520 Antenna
HZ540/550 Near Field Probe sets
HZ560 Transient Limiter
HZ575 75/50-Ω-converter

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