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www.tmgtestequipment.com.au

Test & Measurement

- sales
- rentals
- calibration
- repair
- disposal

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 all us for FREE!

TMG Corporate Website **TMG Products Website**

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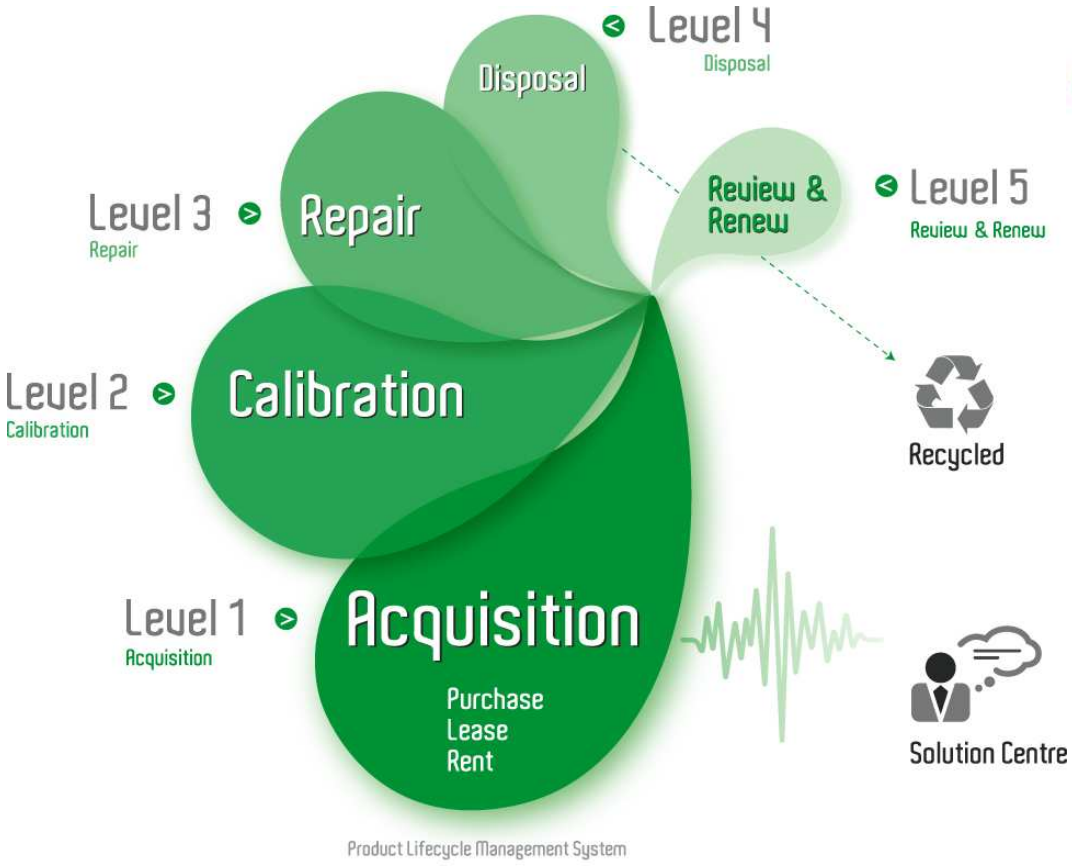
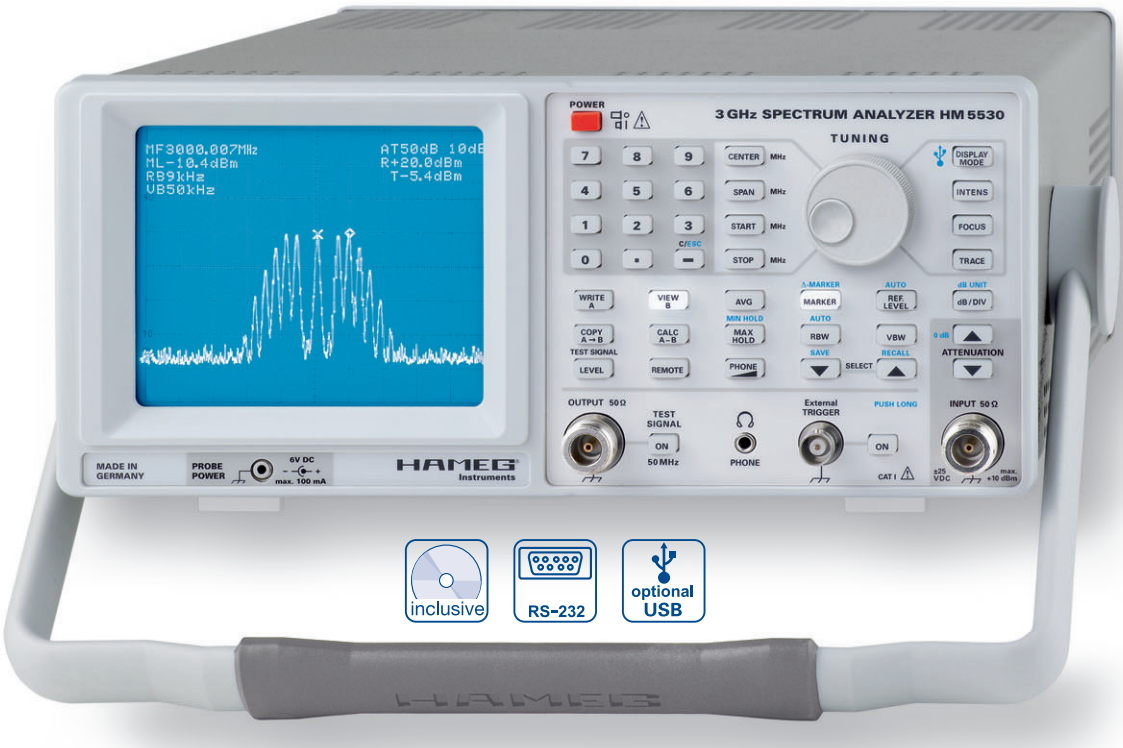


HAMEG Instruments

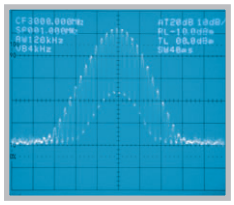
3 GHz Spectrum Analyzer
HM5530

HM5530

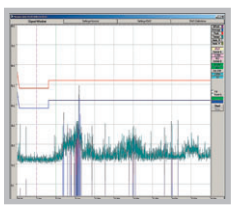


Dual RS-232/USB Interface

Amplitude modulated
3 GHz signal



Measurement of
line-conducted interference



- Frequency range from 100 kHz to 3 GHz
- Amplitude measurement range from -110 dBm to +20 dBm
- Phase Synchronous, Direct Digital frequency Synthesis (DDS)
- Resolution bandwiths (RBW): 9 kHz, 120 kHz and 1 MHz
- 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

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

Frequency characteristics

Frequency range:	100 kHz to 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 to 3 GHz
Tolerance of center frequency:	±1 kHz
Span setting range:	0 (zero span) and 1 to 3000 MHz

Amplitude characteristics

Display range:	-110 dBm to +20 dBm
Scaling, units:	10 or 5 dB/div, dBm, dBmV, dBµV selectable
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 cm x 10 cm
Display chracteristic:	logarithmic
Display units:	dB (dBm, dBmV, dBµV)
Input attenuator:	0 to 50 dB in 10 dB increments
Tolerance of input attenuator:	± 2 dB relative to 10 dB position
Maximum continuous input level:	
Attenuation 10 to 50 dB:	+20 dBm (0.1 W)
Attenuation 0 dB:	+10 dBm
Maximum input dc voltage:	± 25 V
Reference level:	
Adjustment range:	-110 dBm to +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
2nd order harmonic distortions (2nd harmonic at a signal level of -30 dBm, ATT 0 dB, frequency difference › 3 MHz):	› 75 dBc
2nd order harmonic distortions (2nd harmonic at a signal level of -30 dBm, ATT 0 dB, frequency difference › 3 MHz):	± 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 to 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 (PHONE):	3.5 mm DIN jack
RS-232 interface:	9-pin. sub-D
External trigger input:	BNC connector
Digital signal:	
Low level:	0 to +0,8 V
High level:	+2.5 V to +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:	Peak detection
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 cm x 10 cm internal graticule
Acceleration voltage:	approx. 2 kV
Trace rotation:	adjustable on front panel
Ambient temperature range:	+10 to +40 °C
Storage temperature:	-40 to +70 °C
Power supply:	105 to 254 V_{AC}, 50 to 60 Hz, approx. 37 W CAT II
Safety class:	I (EN/IEC 61010-1) with protective earth
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

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

Optional accessories:

HO720 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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