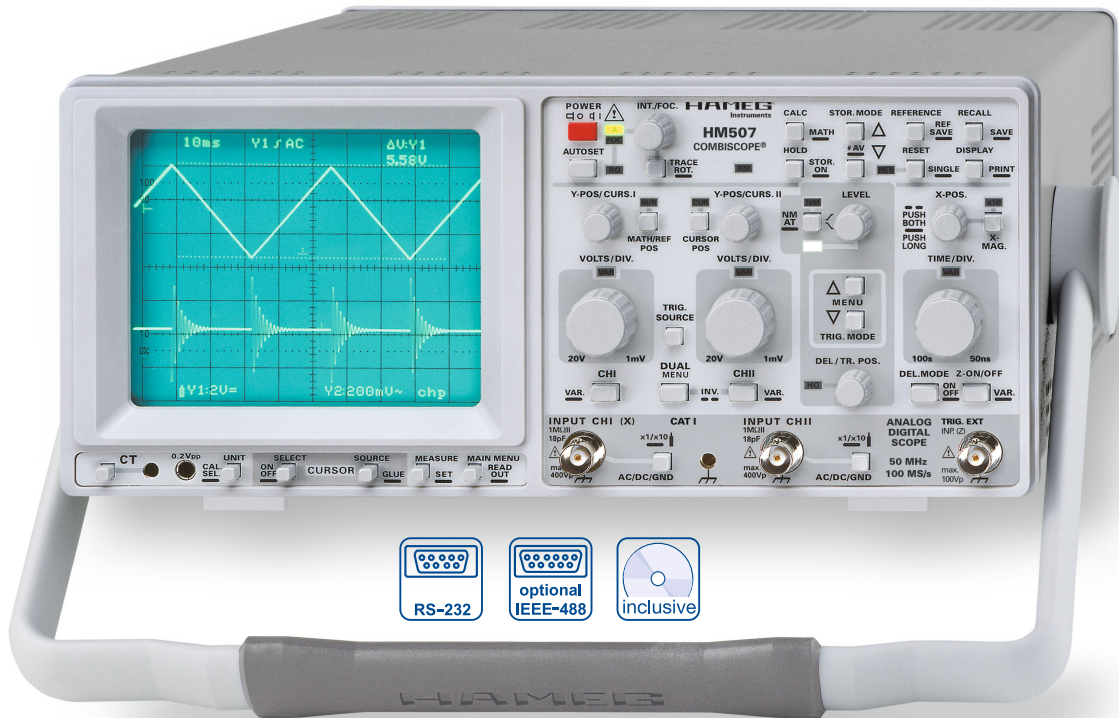
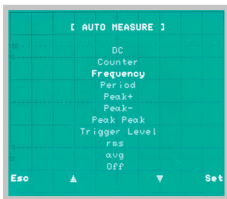


50 MHz CombiScope® HM507

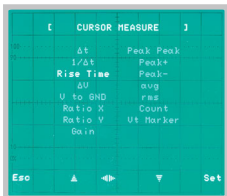
HM507



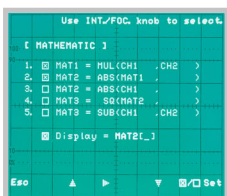
Automatic measurements



Cursor measurement



Signal processing with userdefined formulas



- 100MSa/s Real Time Sampling, 2GSa/s Random Sampling
- 2kPts Memory per Channel
- 2 Channels
- Deflection coefficients 1mV/div....20V/div., Time Base 20ns/div....100 s/div.
- 8-Bit Low Noise Flash A/D Converters
- Programmable Mathematical Signal Processing
- Acquisition modes: Single, Refresh, Envelope, Average, Roll
- RS-232 interface for control and signal data transfer, incl. Windows® software optional: Multifunction Interface H079-6
- See HM504-2 for analog mode

50 MHz CombiScope® HM507

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

Vertical Deflection

Operating Modes:	Channel 1 or 2 only Channels 1 and 2 (alternate or chopped) Sum or Difference of CH 1 and CH 2
Invert:	CH 2
XY Mode:	via CH 1 (X) and CH 2 (Y)
Bandwidth:	2 x 0...50 MHz (-3 dB)
Rise Time:	< 7 ns
Deflection Coefficients:	1-2-5 Sequence
1...2 mV/div.:	± 5% (0...10 MHz (-3 dB))
5 mV/div...20V/div.:	± 3% (0...50 MHz (-3 dB))
Variable (uncalibrated):	> 2.5: 1 to > 50V/div.
Input Impedance:	1 MΩ 15 pF
Coupling:	DC, AC, GND (ground)
Max. Input Voltage:	400V (DC + peak AC)

Triggering

Automatic (Peak to Peak):	20 Hz...100 MHz (≥ 5 mm)
Normal with Level Control:	0...100 MHz (≥ 5 mm)
Slope:	Rising or falling
Sources:	Channel 1 or 2, CH 1/CH 2 alternate (≥ 8 mm) Line and External
Coupling:	AC (10 Hz...100 MHz), DC (0...100 MHz), HF (50 kHz...100 MHz), LF (0...1.5 kHz)
Trigger Indicator:	with LED
Triggering after Delay:	with Level Control and Slope selection
External Trigger Signal:	≥ 0.3 V _{pp} (0...50 MHz)
Active TV sync. separator:	Field and Line, +/-

Horizontal Deflection (analog and digital)

Analog	
Time Base:	50 ns/div...0.5 s/div. (1-2-5 Sequence)
Accuracy:	± 3%
Variable (uncalibrated):	> 2.5: 1 to > 1.25 s/div.
X-Magnification x 10:	up to 10 ns/div. (± 5%)
Accuracy:	± 5%
Delay (selectable):	200 ns...140 ms (variable)
Hold-Off Time:	variable to approx. 10 : 1
XY Mode	
Bandwidth X amplifier:	0...3 MHz (-3 dB)
XY Phase shift < 3°:	< 120 kHz
Digital	
Time Base:	100 ns/div...100 s/div. (1-2-5 Sequence)
Accuracy:	± 2%
X-Magnification x 10:	up to 20 ns/div.
Accuracy:	± 2%
XY Mode	
Bandwidth X Amplifier :	0...50 MHz (-3 dB)
XY Phase shift < 3°:	< 10 MHz

Digital Storage

Operating Modes:	Refresh, Roll, Single, XY, Envelope, Average, Random Sampling
Interpolation:	Linear Dot Join Function
Sampling Rate (Real Time):	max 100 MSa/s, 8 bit Flash A/D Converter
Sampling Rate (Random):	2 GSa/s relative
Post/Pre-Trigger:	-10...+10 div. (continuous)
Display Refresh Rate:	max. 180/s
Bandwidth:	2 x 0...50 MHz (-3 dB)
Signal Memory:	3 x 2 k x 8 bit
Reference Signal Memory:	3 x 2 k x 8 bit
Mathematical Signal Memory:	3 x 2 k x 8 bit
Resolution (dots/div.) Yt Mode:	X: 200/div., Y: 25/div.
Resolution (dots/div.) XY Mode:	X: 25/div., Y: 25/div.

Operation/Readout/Control

Manual:	via controls
Autoset:	automatic signal related parameter settings
Save and Recall:	9 user defined parameter settings
Readout:	display of menu, parameters, cursors and results
Auto Measurements:	
 Analog mode:	Frequency, Period, V _{DC} , V _{pp} , V _{p+} , V _{p-}
 also in digital mode:	V _{rms} , V _{average}
Cursor Measurements:	
 Analog mode:	ΔV, Δt, 1/Δt (f), tr, V to GND, ratio X and Y
 also in digital mode:	Pulse count, Vt related to Trigger Point, Peak to Peak, Peak+, Peak-
Frequency counter:	4 digit (0.01 % ± 1 digit) 0.5 Hz...100 MHz
Interface (standard fitting):	RS-232 (Control, Signal Data)
Interface Option:	H079-6 (IEEE-488, RS-232, Centronics)

Component Tester

Test Voltage:	approx. 7 V _{rms} (open circuit)
Test Current:	max. 7 mA _{rms} (short-circuit)
Test Frequency:	approx. 50 Hz
Test Connection:	2 banana jacks 4 mm Ø

One test circuit lead is grounded via protective earth (PE)

Miscellaneous

CRT:	D14-363GY, 8 x 10 div. with internal graticule
Acceleration Voltage:	approx. 2 kV
Trace Rotation:	adjustable on front panel
Z-Input (Intens. modulation, analog):	max. + 5 V (TTL)
Calibrator Signal (Square Wave):	0.2V, 1 Hz...1 MHz (tr < 4 ns), DC
Power Supply (Mains):	105...253 V, 50/60 Hz ± 10 %, CAT II
Power Consumption:	approx. 42 Watt at 230V/50 Hz
Safety class:	Safety class I (EN61010-1)
Operating temperature:	+5...+40°C
Storage temperature:	-20...+70°C
Rel. humidity:	5...80% (non condensing)
Dimensions (W x H x D):	285 x 125 x 380 mm
Weight:	approx. 6.0 kg

Accessories supplied: Line Cord, Operators Manual and Software for Windows on CD-ROM, 2 Probes 1:1 / 10:1 (HZ154), RS-232 Interface

Optional accessories:

H079-6	Multifunction Interface
HZ14	Interface cable (serial) 1:1
HZ20	Adapter, BNC to 4mm banana
HZ33	Test cable 50Ω, BNC/BNC, 0,5m
HZ34	Test cable 50Ω, BNC/BNC, 1m
HZ43	19"-Rackmount Kit 3RU
HZ51	Probe 10:1 (150MHz)
HZ52	Probe 10:1 RF (250MHz)
HZ53	Probe 100:1 (100MHz)
HZ56-2	AC/DC Current probe
HZ70	Opto Interface (with optical fiber cable)
HZ72	GPIB-Cable 2m
HZ100	Differential probe 20:1 / 200:1
HZ109	Differential probe 1:1 / 10:1
HZ115	Differential probe 100:1 / 1000:1
HZ200	Probe 10:1 with auto attenuation ID (250MHz)
HZ350	Probe 10:1 with automatically identification (350MHz)
HZ355	Slimline probe 10:1 with automatically identification (500MHz)
HZ020	High voltage probe 1000:1 (400MHz,1000Vrms)
HZ030	Active probe 1GHz (0,9pF, 1MΩ, including many accessories)
HZ050	AC/DC Current probe 20A, DC...100kHz
HZ051	AC/DC Current probe 1000A, DC...20kHz

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