

Meet the requirements of modern service and industrial applications with HAMEG's HM304 microprocessor controlled oscilloscope.

New "AUTO SET" capability allows for automatic setup, where the user only need to adjust the focus and intensity controls. All other settings instantaneously and automatically configure in response to the input signals when "Auto Set" is active. The instrument's intelligence modifies only those parameters that are necessary for proper signal presentation. This mode typically generates a display with a period of three signal repetitions, that has an amplitude of approximately six divisions for single channel and half of that for dual channel operation, manual control is also possible for all settings.

A PC's serial port can control remote operation via the optional RS-232 serial interface. LED's indicate measurement range settings and functions. A memory base that can store six different customer-defined control scenarios facilitates repeat measurement tasks. User settings can be saved and recalled without restriction.

The two vertical (Y) channel amplifier's 35MHz bandwidth display signals over 100MHz. High frequency trigger circuitry permits synchronization to signals (having 0.5 division amplitude) beyond 100MHz. The high resolution timebase allows signal expansion in the 'delay' and 'automatic' trigger after delay' modes by a factor of up to 1000 times.

The HM 304 is equipped with a built-in Component Tester, dual frequency (1kHz / 1MHz) calibration signals and mu-metal CRT shielding. A switching mode power supply saves both energy and weight with the complete unit weighing only 5.5 kg. (12.1 pounds).

Specifications

Vertical Deflection

Operating Modes: Channel 1 or 11 separate, both Channels (alternated or chopped), (Chopper frequency approx. 0.5MHz).
Sum or Difference with CH. 1 and CH. 11 (both channels invertable)
XY-Mode: via channel 1 and channel 11
Frequency Range: 2 x DC to 35MHz (-3dB)
Risetime: <10ns. Overshoot max. 1%
Def. coefficients: 14 calibrated steps from 1mV/div. to 20V/div.
Input Impedance: 1M 11 20pF.

Triggering

Automatic: (peak to peak) <20Hz - 100MHz (<0.5div)
Normal with level: DC - 100MHz (≥0.5div)
Slope: Positive or negative
ALT. Triggering: LED indicator for trigger action
Sources: Channel 1 or 11, CH. 1 alternating CH 11, line and external
Active TV-Sync-Separator (pos and neg)
External: >0.3Vpp from 30Hz to 30MHz
2nd Triggering(Del Trig): normal with level control 20Hz - 100MHz

Horizontal Deflection

Time Coefficients: 22 calibrated steps from 0.5s/div to 50ns/div in 1-2-5 sequence
Holdoff time: Variable to approx 10:1
Delay: 50ms - 100ns, variable 2.5:1 up to 125ms
Bandwidth X-Amp: 0-3Mz (-3dB) Input X-Amplifier via Channel 11, sensitivity see Channel 11 specification)

Operation / Control

Auto Set (automatic parameter selection)
Manual (front panel switches)
Memory for 6 user-defined parameter settings

Options: RS-232 interface, readout and cursors

Component Tester

Test Voltage: approx 8.5Vrms (open circuit)

Test current: approx 7vArms (shorted)

Test Frequency: approx 50Hz

General Information

Protective system: Safety class 1 (IEC1010-1)

Cabinet: 285 x 125 x 380mm (W x H x D), Lockable tilt handle.