35MHz Standard Oscilloscope HM303-6

Specifications

Vertical Deflection

Operating modes: Channel I or II separate both Channels (alternated or chopped)
Chopper frequency: approx. 0.5MHz
Sum or **Difference:** from CH I and CH II
Invertable: CH II
XY-Mode: via CH I(X) and CH II(Y)
Frequency range: 2 x DC – 35MHz (–3dB)
Risetime: <10ns
Overshoot: ≤1%
Deflection coefficients: 12 calibrated steps from **5mV/div**. to 20V/div. (1 - 2 - 5 sequence) with variable 2.5:1 up to **50V/div**.
Accuracy in calibrated position: ±3%
Y-expansion x5: (calibrated) to **1mV/div.** (±5%) in the frequency range from DC - 10MHz (–3dB)
Input impedance: 1MΩ II 20pF
Input coupling: DC-AC-GD (ground)
Input voltage: max. 400V (DC + peak AC)

Triggering

Automatic, (peak to peak)**:**
20Hz – 50MHz (≥0.5div.) – 100MHz (≥0.8div.)
Normal with level control:
DC – 50MHz (≥0.5div.) – 100MHz (≥0.8div.)
Indicator for trigger action: LED
Slope: positive or negative
Sources: Channel I or II, line, external
ALT. triggering: CHI / CHII (≥ 0.8div.)
Coupling: **AC** (10Hz – 100MHz)
DC (0 – 100MHz)
LF (0 – 1.5kHz)
External: ≥0.3$_{pp}$ (30Hz – 50MHz
Active TV Sync. Separator: field and line, $^{+}/_{-}$

Horizontal Deflection

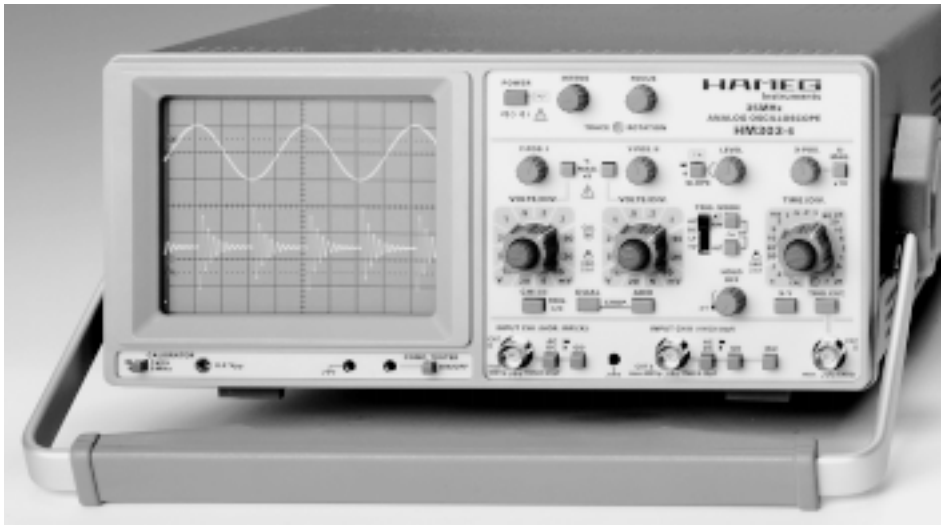
Time coefficients: 20 calibrated steps 0.2s/div. – 0.1µs/div. in 1-2-5 sequence
Accuracy in calibrated position: ±3%
Min. speed incl. variable: 2.5:1 up to 0.5s/div.
X-Mag. x10: up to 10ns (±5%)
Holdoff time: variable to approx. 10:1
Bandwidth X-amplifier: 0-2.5MHz (–3dB).
Input X-Amplifier: via Channel I (sensitivity see Channel I specification)
X Y phase shift: <3° below 100kHz

Component Tester

Test voltage: approx. 7V$_{rms}$ (open circuit)
Test current: approx. 7mA$_{rms}$ (shorted)
Test frequency: approx. 50Hz
Test connection: 2 banana jacks 4mm ∅
One test lead is grounded (Safety Earth)

General Information

CRT: D14-363GY or ER151-11GY
Rectangular screen:(8x10cm) internal graticule
Acceleration voltage: approx 2000V
Trace rotation: adjustable on front panel
Calibrator: square-wave generator (t$_r$ <4ns) ≈1kHz / 1MHz; Output: 0.2V ±1%
Line voltage: 100-240V AC ±10%, 50/60Hz
Power consumption: approx. 36 Watt at 50Hz.
Min./Max. ambient temperature: 0°C...+40°C
Protective system: Safety class I (IEC 1010-1)
Weight: approx. 5.4kg. **Color:** techno-brown
Cabinet: **W** 285, **H** 125, **D** 380 mm
Lockable tilt handle
Subject to change without notice. 04/99



Vertical: 2 Channels, DC - 35MHz, 1mV/div. - 20V/div.,
Time Base: 0.2s to 10ns/div.; Variable Hold Off; Alternate Triggering
Triggering: DC-100MHz; Auto Peak to Peak; Active TV Sync. Separator
Additional Features: Component Tester, 1kHz/1MHz Calibrator

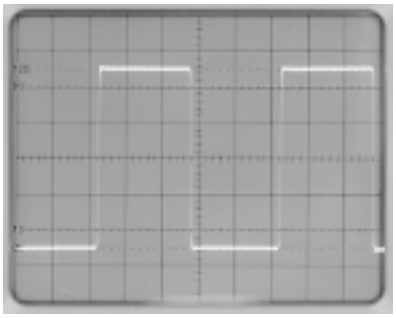
The **HAMEG HM303** oscilloscope succeeds the HM203 (over 180,000 sold worldwide). The bandwidth has been extended from 20 to **35MHz**, the sweep speed increased to **10ns/div.** and improvements added to the already legendary **HAMEG** auto triggering system. The **HM303** is the ideal instrument for waveform display in the **DC** to **100MHz** frequency range.

A key feature of this oscilloscope is the vertical amplifier's pulse fidelity, with overshoot less than 1%. The **HM303** offers a special fast rise time **1kHz/1MHz Calibrator**, permitting high quality probe compensation across the entire frequency range to ensure probe tip thru to display integrity.

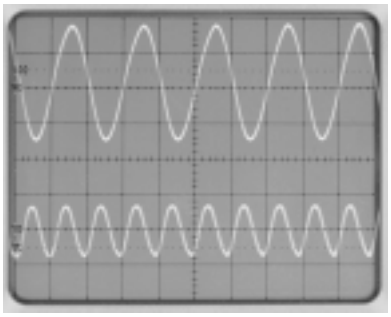
The **HM303** is capable of triggering on input waveforms over **100MHz** at very low signal amplitudes. **Alternate triggering** mode enables the display of two asynchronous signals simultaneously. An active **Video Sync. Separator** permits detailed examination of complex TV signal inputs. A well proven, built-in **component tester** is now equipped with a stabilized measuring voltage. The use of a switching type of power supply minimizes both weight and power consumption and universally accepts a wide range of input power line voltages, without the requirement to change jumpers or switch positions. The **HM303's** CRT is fully **mu-metal shielded** against outside magnetic fields.

HAMEG is setting new **price/performance** breakthroughs with the introduction of this fine oscilloscope. This performance packed scope will tempt all users to run it through its paces.

Screen photo of 1 MHz square wave signal



Screen photo of 50 and 100MHz sine wave with alternate triggering



Accessories supplied: Line cord, Operators Manual, 2 Probes 1:1/10:1