Without doubt, the oscilloscope is the most important measuring instrument for the characterization of signals in the time domain. HAMEG Instruments offers the most comprehensive portfolio for the diverse areas of application in industry, handcraft, science, education, training, and service as well as the private sector. In addition to our innovative DSO’s [Digital Storage Oscilloscopes] the classical CRT (cathode ray tube) instruments, purely analog scopes or CombiScopes® [Analog Scope and DSO combined in one instrument] are for the customers’ choice.

The demand for purely analog instruments has been diminishing for some time because DSO’s offer a host of advantages such as documentation, the ability to extensively analyze data, a compact package etc. MSO’s [Mixed-Signal Oscilloscopes] additionally allow the simultaneous display of analog and digital signals on several channels.

Modern electronic gear, as a rule, contains microprocessors, FPGA’s, serial interfaces such as I²C, SPI or UART. The HMO series oscilloscopes, with the available options, feature triggering and decoding of these bus protocols in real time, which is very helpful and time-saving for debugging during the design phase. Modern semiconductor technologies generate signals with rise times of a few ns and thus demand higher bandwidths and sampling rates in order to minimize the measurement errors. The high sampling rate requires a deeper memory in order to acquire a given time window. HAMEG Instruments always offers a well balanced set of these three specifications in order to display a correct measurement result even in critical cases. Last but not least our experience of 50 plus years in oscilloscope technology stands for first-class trigger performance, extraordinary sensitivity, low-noise a/d converters, unexcelled longevity, and an excellent price/performance ratio.
HM03522 [HM03524]

- 4GSa/s Real Time, 50GSa/s Random Sampling, Low Noise Flash A/D Converter (Reference Class)
- 4MPts Memory, Memory zoom up to 100,000:1
- MSO (Mixed Signal Opt. H03508 [H03516]) with 8 [16] Logic Channels
- 8 User definable Markers for easy Navigation
- Pass/Fail Test based on Masks
- Vertical Sensitivity 1mV/div., Offset Control ±0.2...±20V
- 12div. x-Axis Display Range, 20div. y-Axis Display Range (Virtual Screen)
- Trigger Modes: Slope, Video, Pulswidth, Logic, Delayed, Event
- 6 Digit Counter, Automeasurement, Formula Editor, Ratiocursor, FFT for Spectral Analysis
- Crisp 16.5cm (6.5”) TFT VGA Display, DVI Output
- Lowest Noise Fan
- 3 x USB for Mass Storage, Printer and Remote Control optional IEEE-488 (GPIB) or Ethernet/USB

See page 69 for technical specifications or www.hameg.com/HM03522 [www.hameg.com/HM03524]
250MHz 4 Channel Digital Oscilloscope
HMO2524

- 2.5GSa/s Real Time, 25GSa/s Random Sampling, Low Noise Flash A/D Converter (Reference Class)
- 4Mpts Memory, Memory zoom up to 100,000:1
- MSO (Mixed Signal Opt. H03508 [H03516]) with 8 [16] Logic Channels
- 8 User definable Markers for easy Navigation
- Pass/Fail Test based on Masks
- Vertical Sensitivity 1mV/div., Offset Control ±0.2...±20V
- 12div. x-Axis Display Range, 20div. y-Axis Display Range (VirtualScreen)
- Trigger Modes: Slope, Video, Pulsewidth, Logic, Delayed, Event
- 6 Digit Counter, Automeasurement, Formula Editor, Ratiocursor, FFT for Spectral Analysis
- Crisp 16.5cm (6.5”) TFT VGA Display, DVI Output
- Lowest Noise Fan
- 3 x USB for Mass Storage, Printer and Remote Control optional IEEE-488 (GPIB) or Ethernet/USB

See page 67 for technical specifications or www.hameg.com/HMO2524
150MHz/200MHz 2[4] Channel Digital Oscilloscope
HM01522 [HM01524]/HM02022 [HM02024]

2 Channel Version
HM02022

- 2GSa/s Real Time, Low Noise Flash A/D Converter (Reference Class)
- 2Mpts Memory, Memory zoom up to 50,000:1
- MSO (Mixed Signal Opt. HO3508) with 8 Logic Channels
- Serial Bus Trigger and Hardware accelerated Decode, \( \text{I^C}, \text{SPI}, \text{UART/RS-232} \) (Opt. HO010, HO011)
- 8 User definable Markers for easy Navigation
- Pass/Fail Test based on Masks
- Vertical Sensitivity 1mV/div., Offset Control ±0.2...±20V
- 12div. x-Axis Display Range, 20div. y-Axis Display Range (Virtual Screen)
- Trigger Modes: Slope, Video, Pulsewidth, Logic, Delayed, Event
- Component Tester, 6 Digit Counter, Automeasurement, Formula Editor, Ratiocursor, FFT for Spectral Analysis
- Crisp 16.5cm (6.5”) TFT VGA Display, DVI Output
- Lowest Noise Fan
- 3 x USB for Mass Storage, Printer and Remote Control optional IEEE-488 (GPIB) or Ethernet/USB

See page 64 for technical specifications or www.hameg.com/HM01522 [www.hameg.com/HM01524]
See page 66 for technical specifications or www.hameg.com/HM02022 [www.hameg.com/HM02024]
70MHz/100MHz 2[4] Channel Digital Oscilloscope
HM0722 [HM0724]/HM01022 [HM01024]

- 2GSa/s Real Time, Low Noise Flash A/D Converter (Reference Class)
- 2MPts Memory, Memory zoom up to 50,000:1
- MSO (Mixed Signal Opt. HO3508) with 8 Logic Channels
- 8 User definable Markers for easy Navigation
- Pass/Fail Test based on Masks
- Vertical Sensitivity 1mV/div.
- 12div. x-Axis Display Range, 20div. y-Axis Display Range (Virtual Screen)
- Trigger Modes: Slope, Video, Pulsewidth, Logic, Delayed, Event
- Component tester, 6 Digit Counter, Automeasurement, Formula Editor, Ratiocursor, FFT for Spectral Analysis
- Crisp 16.5cm (6.5”) TFT VGA Display, DVI Output
- Lowest Noise Fan
- 3 x USB for Mass Storage, Printer and Remote Control optional IEEE-488 (GPIB) or Ethernet/USB

See page 61 for technical specifications or www.hameg.com/HM0722 [www.hameg.com/HM0724]
See page 63 for technical specifications or www.hameg.com/HM01022 [www.hameg.com/HM01024]
H0010 via Analog Channels and/or Logic Channels, H0011 via Analog Channels

I2C, SPI, UART/RS-232 Bus Trigger and Decode

Hardware accelerated Decode in Realtime

Color Coded Display of the Content for intuitive Analysis and easy Overview

More Details of the decoded Values come visible with increasing Zoom Factor

Bus Display with synchronous Display of the Data and may be Clock Signal

Decode into ASCII, Binary, Hexadecimal or Decimal Format

Up to four Lines to show the decoded Values Comfortably

Powerful Trigger to isolate specific Messages

Option for all Oscilloscopes of the HMO Series, retrofittable

See page 86 for technical specifications or www.hameg.com/H0010
40MHz Analog Oscilloscope
HM400

- Reference-Class in Sensitivity and Input Voltage Range
- 2 Channels with Deflection Coefficients 1mV/div...20V/div., variable up to 50V/div.
- Time Base 100ns/div...0.2s/div., with X Magnification to 10ns/div.
- Low Noise Measuring Amplifiers with high Pulse Fidelity and minimum Overshoot
- Peak to Peak Trigger for stable Triggering 0...50MHz at 0.5div. Signal Level (up to 80MHz at 1div.)
- Autoset, Save/Recall Memories for 6 Instrument Settings
- Yt- and XY-Mode with Z-Input for Intensity Modulation
- Component Characterisation with Component Tester (two Terminal Network Measurement) for use within Service etc.
- Low Power Consumption, no Fan

See page 61 for technical specifications or www.hameg.com/HM400