

HS Series hand held digital oscilloscopes

digimess® concept

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The **digimess®** HS20 and HS60 are general purpose 20MHz 100MS/s and 60MHz 250MS/s, 2 channel, colour digital storage oscilloscopes. These hand held units feature a back lit 3.8 inch colour LCD display with 320 x 240 resolution and 4096 colours. The specification includes separate isolated inputs for the oscilloscope and built in 4000 count multimeter. Up to 4 waveforms can be stored and a USB interface is fitted as standard. The oscilloscope is supplied with a lockable aluminium storage case, rechargeable battery, mains adapter/charger, two X1/X10 probes, USB lead, PC software, 20A current shunt, capacitance adapter, multimeter probes and operating manual.

Specification

OSCILLOSCOPE DISPLAY Screen Resolution Type Persistence Waveform interpolation Format Zoom window INPUT Coupling Impedance Max input voltage Channel delay time (typical) Probe attenuation coefficient DATA ACQUISITION Max real time samp rate / ch Max equiv sample rate / ch Sampling modes Average HORIZONTAL Sampling range Record length Time base range Sample rate /delay time accy Time interval (T) measurement accuracy full bandwidth VERTICAL A/D converter Sensitivity Analogue bandwidth Single bandwidth Low frequency response Rise time DC gain accuracy DC accuracy average mode TRIGGER Trigger source Trigger mode Trigger coupling Trigger sensitivity (Edge)	3.8 inch Colour LCD back lit 320 x 240, 4096 colours Dots or vectors Off, 1s, 2s, 5s, infinite Sin (x)/x YT and XY Full size between 2 cursors DC, AC 1MΩ ± 2%, 20pF ± 3pF 400V (peak) CAT II 150ps X1, X10, X100, X1000 HS20 100MS/s, HS60 250MS/s HS20 12.8GS/s, HS60 32GS/s Sample, Pk Detection, Average 4, 16, 64, 128 10S/s to maximum 6k points per channel 5ns/div - 5s/div, 1-2-5 steps ± 100ppm for any time interval ≥ 1ms Single: ± (1 sample time int + 100ppm x reading + 0.6ns) >average 16 : ± (1 samp int + 100ppm x reading + 0.4ns) 8 bit resolution, 2 channel 5mV/div - 5V/div HS20 20MHz, HS60 60MHz Full bandwidth ≥ 5Hz AC coupling -3dB HS20 ≤ 17.5ns, HS60 ≤ 5.83ns ± 5% ± 5% reading + 0.05 divs after averaging more than 16 times CH1, CH2 Auto, Norm, Single, Edge, TV AC, DC, HF Rej, LF Rej DC, CH1 & CH2: 1div (dc to b/w)	Trigger level range Trigger level accuracy Trigger displacement Trigger sensitivity video/typical mode Video triggering X/Y MODE X axis Y axis MEASUREMENT Cursor Auto WAVEFORM MATHS Function MULTIMETER No of counts Impedance Diode test Continuity test DC voltage { max i/p 1000V dc/ac pk-pk } AC voltage { max i/p 750V ac rms } 40Hz to 400Hz DC current AC current Resistance Capacitance GENERAL Power supply (adapter) Battery (rechargeable) Power consumption Working temp & rel hum Weight & dims (W x H x D) ORDER INFORMATION HUC76-00 HS20 HUC76-10 HS60	± 6 divs from screen centre ± 0.3 divs for rise/fall ≥ 20ns 655 divs pre-trig, 4 divs post-trig 2 divs of pk-pk value PAL, NTSC, SECAM for any field or line CH1/CH2 Voltage diff (ΔV), time dif (ΔT) Pk-pk value, average value, rms value, frequency and period CH1-CH2, CH2-CH1, CH1+CH2, CH1xCH2, CH1/CH2 4000 10MΩ 0 to 1.5V < 30Ω 400.0mV, 4.000V, 40.00V 400.0V, ± 1% ± 1dig 4.000V, 40.00V, 400.0V ± 1% ± 3dig 40.00mA ± 1% ± 1dig, 400.0mA ± 1.5% ± 1dig, 20A resolution 10mA ± 3% ± 3dig 40.00mA ± 1.5% ± 1dig, 400.0mA ± 2% ± 1dig, 20A resolution 10mA ± 5% ± 3dig 400.0Ω ± 1% ± 3dig, 4.000K, 40.00K, 400.0K, 4.000M ± 1% ± 1dig, 40.00M ± 1.5% ± 3dig 51.20nF, 512.0nF, 5.120μF, 51.20μF, 100.0μF ± 3% ± 3dig 100-240Vac rms 50/60Hz 7.4V 3500mAh lithium < 6W 5 - 40°C, 20% - 80% 645g, 115 x 180 x 40mm 20MHz colour oscilloscope 60MHz colour oscilloscope
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