



HDS-N Series

Handheld Digital Storage Oscilloscope

- + 2 in 1 (DSO + Multimeter)
- + Auto-scale function
- + FFT function
- + 20 group automatic measurement options
- + Bandwidth : 20MHz - 200MHz
- + USB data transmission supported
- + Rechargeable Li-ion battery (6 hours' backup)
- + Waveform record and replay
- + Multimeter newly supported SCPI

+ Performance Specifications

| Model | HDS1022M-N | HDS2062M-N | HDS3102M-N | HDS4202M-N |
|-------------------------------|---|---------------------------------------|------------|---------------------------------------|
| Bandwidth | 20MHz | 60MHz | 100MHz | 200MHz |
| Sample Rate (real time) | 100MS/s | 1GS/s | | |
| Horizontal Scale (s/div) | 5ns/div ~ 100s/div, step by 1 ~ 2.5 ~ 5 | 5ns/div ~ 100s/div, step by 1 ~ 2 ~ 5 | | 2ns/div ~ 100s/div, step by 1 ~ 2 ~ 5 |
| Rise Time (at input, typical) | ≤ 17.5ns | ≤ 5.8ns | ≤ 3.5ns | ≤ 1.7ns |
| Display | 3.7" color TFT display (640 × 480 pixels) | | | |
| Channel | dual | | | |
| Input Impedance | 1MΩ ± 2%, in parallel with 20pF ± 5pF | 1MΩ ± 2%, in parallel with 15pF ± 5pF | | |
| Record Length | 6K points | | | |
| Interpolation | sin (x) / x | | | |
| Probe Attenuation Factor | 1X , 10X , 100X , 1000X | | | |
| Input Coupling | DC, AC, and GND | | | |
| DC Accuracy (average) | average >16 : ±(5% reading + 0.05div) for ΔV | | | |
| Vertical Sensitivity | 5mV/div ~ 5V/div (at input) | | | |
| Vertical Resolution (A/D) | 8 bits | | | |
| Max Input Voltage | 400V (PK - PK) (DC + AC, PK - PK, 1MΩ input impedance, probe attenuation 10 : 1), CAT II | | | |
| Trigger Type | Edge, Video, and Alternate | | | |
| Trigger Mode | Auto, Normal, and Single | | | |
| Trigger Level | ±6 divisions from screen center | | | |
| Acquisition Mode | Sample, Peak Detect, and Average | | | |
| DC Gain Accuracy | ±3% | | | |
| Automatic Measurement | Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Delay A→B, Delay A→B | | | |
| Waveform Math | +, -, ×, ÷, invert, FFT | | | |
| Waveform Storage | 4 waveforms | | | |

| | | |
|--------------------------|------------------|--------------------------|
| Lissajous Figure | Bandwidth | full bandwidth |
| | Phase Difference | ±3 degrees |
| Communication Interface | | USB |
| Power Supply | | 100V-240V AC, 50/60Hz |
| Li-ion Battery | | 7.4V, 6 hours' operation |
| Dimensions (W × H × D) | | 115 × 180 × 40 (mm) |
| Weight (without package) | | 645.00 g |

+ Multimeter Specifications

| | | | |
|--------------------|--|---------------|---------------------|
| Full Scale Reading | 3 $\frac{3}{4}$ digit (max 4000-count) | diode | 0V-1.5V |
| Input Impedance | 10 MΩ | On / Off Test | < 50 (± 30) beeping |
| Voltage | VDC : 400mV, 4V, 40V, 400V, 1000V : ±(1% ± 1 digit); max input : DC 1000V VAC : 4V, 40V, 400V : ±(1% ± 3 digits), 750V : ±(2% ± 3 digits); Frequency : 40Hz - 400Hz; max input : AC 750V (virtual value) | | |
| Current | DC : 40mA, 400mA : ±(1.5% ± 1 digit), 10A : ±(3% ± 3 digits) AC : 40mA : ±(1.5% ± 3 digits), 400mA : ±(2% ± 1 digit), 10A : ±(5% ± 3 digits) | | |
| Impedance | 400Ω : ±(1% ± 3 digits), 40KΩ - 4MΩ : ±(1% ± 1 digit), 40MΩ : ±(1.5% ± 3 digits) | | |
| Capacitance | 51.2nF - 100uF : ±(3% ± 3 digits) | | |

Specifications subject to change without prior notice.

+ Application

electronic circuit debugging
education and training

circuit testing

design and manufacture
automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.

