

# 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	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 x 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 + 0.05 div) for ΔV			
Vertical Sensitivity	5mV/div - 5V/div (at input)			
Vertical Resolution (A/D)	8 bits			
Max Input Voltage	400V (DC + AC peak, 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, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty			

Model	HDS1022M-N	HDS2062M-N	HDS3102M-N	HDS4202M-N
Waveform Math	+, -, *, /, invert, FFT			
Waveform Storage	4 waveforms			
Lissajous Figure	Bandwidth	full bandwidth		
	Phase Difference	± 3degrees		
Communication Interface	USB			
Power Supply	100V-240V AC, 50/60Hz			
Li-ion Battery	7.4V, 6 hours' operation			
Dimensions (W x H x D)	115 x 180 x 40 (mm)			
Device Weight	645.00 g			

## + Multimeter Specifications

Full Scale Reading	3 <sup>3</sup> / <sub>4</sub> digits (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      circuit testing      design and manufacture  
education and training      automobile maintenance and testing

## + Accessories

The accessories subject to final delivery.

