



## HDS Series - - Features and Benefits

### Dual Channels Handheld Digital Oscilloscope

- Integrated oscilloscope and multimeter function
- Auto-scale function
- FFT function
- 20 automatic measurements
- Bandwidth : 20MHz~100MHz
- USB data transmission supported
- Waveform record and replay
- Multimeter newly supported SCPI
- Rechargeable Li-ion battery

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 <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.



Power Cord



CD Rom



USB Cable



Probe



Probe Adjust



Multimeter Lead



Adapter



Quick Guide



5V, 1KHz Output



Capacitance Ext  
Module



Soft Bag



Metal Case  
(optional)