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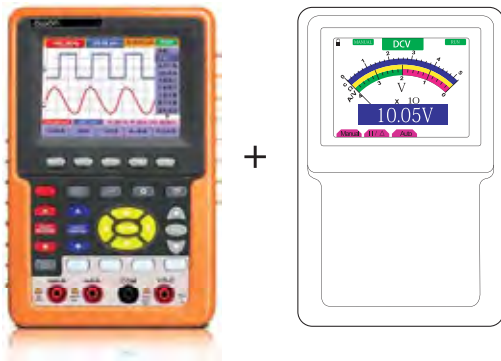
HDS-N & HDS Series



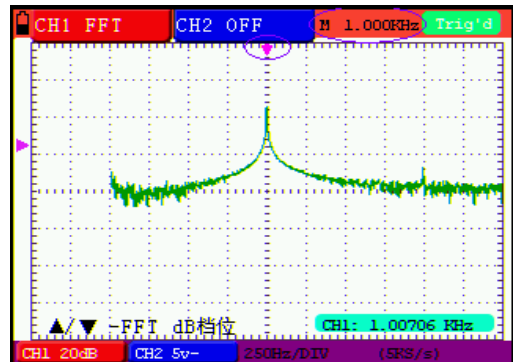
Functions & Features

2 in 1

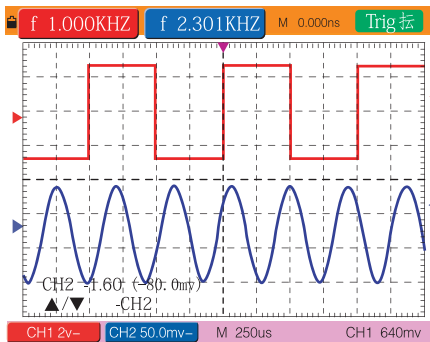
DSO + Multimeter



FFT Waveform Math



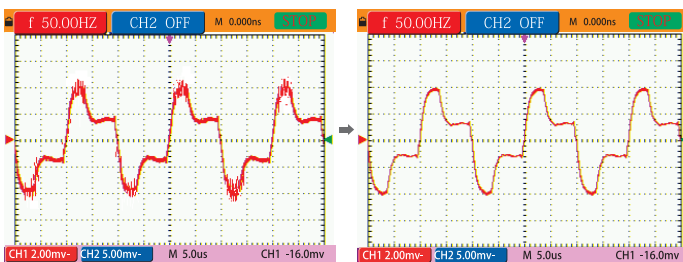
Alternate Trigger



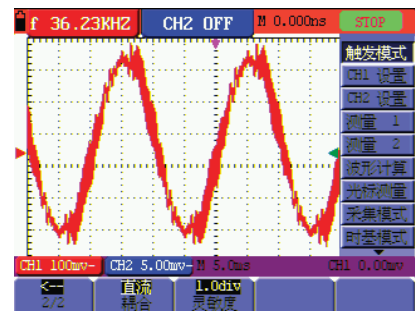
Super-portable On-site Tool



Waveform Smart Average-acquisition



Adjustable Trigger Sensitivity





HDS-N Series Handheld Digital Storage Oscilloscope

- ✓ 2 in 1 (DSO+Multimeter)
- ✓ Auto-scale Function
- ✓ FFT
- ✓ 20 group automatic measurement options
- ✓ Bandwidth : 20MHz ~ 100MHz
- ✓ USB data transmission supported
- ✓ Rechargeable Li-ion battery (6 hours' backup)
- ✓ USB flash disk storage
- ✓ Waveform record & replay
(equipped in HDS2062M-N, HDS3102M-N)

+ Performance Specifications

Model	HDS1022MN	HDS2062MN	HDS3102MN HOT!
Bandwidth	20MHz	60MHz	100MHz
Sample Rate (real time)	100MS/s	500MS/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
Rise Time (at input, typical)	≤ 17.5ns	≤ 5.8ns	≤ 3.5ns
Display	3.8 inch color display with TFT panel (640 × 480 pixels, 65535 colors)		
Channel	dual		
Input Impedance	1MΩ ± 2%, in parallel with 20pF ± 5pF	1MΩ ± 2%, in parallel with 15pF ± 5pF	
Record Length	max 6000 points on each channel		
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 (2 channels simultaneously)		
Max Input Voltage	400V (PK - PK) (DC + AC, PK - PK, 1MΩ input impedance, probe attenuation 10 : 1), CAT II		
Trigger Type	Edge, Video, Alternate		
Trigger Mode	Auto, Normal, Single		
Trigger Level	±6 divisions from screen center		
Acquisition Mode	Sample, Peak Detect, and Average		
DC Gain Accuracy	±3%		
Automatic Measurement	Vpp, Vavg, RMS, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Width, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Delay A→B \int , Delay A→B \int		

+ Performance Specifications

Model	HDS1022MN	HDS2062M	HDS3102MN HOT
Waveform Math	+, -, ×, ÷, FFT		
Waveform Storage	4 waveforms		
Lissajous Figure	Bandwidth 20MHz	60MHz	100MHz
	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)	180 × 115 × 40 (mm)		
Weight (without package)	645 g		

+ Multimeter Specifications

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

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.



Power Cord



CD Rom



USB



Probe



Probe Adjust



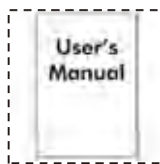
Multimeter Lead



Adapter



5V, 1KHz Output



Manual



Capacitance Ext
Module



Soft Bag (optional)



Metal Case



HDS Series

Handheld Series Digital Storage Oscilloscope

- ✓ 2 in 1 (DSO+Multimeter)
- ✓ Auto-scale function
- ✓ 20 automatic measurements
- ✓ Bandwidth : 20MHz ~ 60MHz
- ✓ USB data transmission supported
- ✓ Rechargeable Li-ion battery (6 hours' backup)

+ Performance Specifications

Model	HDS1021M ^{HOT!}	HDS1022M	HDS2062M
Bandwidth	20MHz	20MHz	60MHz
Sample Rate (real time)	100MS/s	100MS/s	250MS/s
Horizontal Scale (s/div)	5ns/div ~ 100s/div, step by 1 ~ 2.5 ~ 5		5ns/div ~ 100s/div, step by 1 ~ 2 ~ 5
Rise Time (at input, typical)	≤17.5ns		≤5.8ns
Display	3.5" color TFT display (320 × 240 pixels)	3.7" color TFT display (640 × 480 pixels)	3.8" color TFT display (320 × 240 pixels)
Channel	single	dual	
Input Impedance	1MΩ ± 2%, in parallel with 18pF ± 5pF		1MΩ ± 2%, in parallel with 20pF ± 5pF
Record Length	max 6000 points on each channel		
Interpolation	sin (x) / x		
Probe Attenuation Factor	1X , 10X , 100X , 1000X		
Input Coupling	DC, AC, and GND		
DC Accuracy (average)	average > 16 : ± (3% reading + 0.05div) for ΔV		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		
Trigger Mode	Auto, Normal, Single		
Trigger Level	± 6 divisions from screen center		
Acquisition Mode	Sample, Peak Detect, and Average		
DC Gain Accuracy	± 3%	± 5%	

+ Performance Specifications

Model	HDS1021M ^{HOT!}	HDS1022M	HDS2062M
Automatic Measurement	Vpp, Vavg, RMS, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Width, Overshoot, Pre shoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Delay A→B \int , Delay A→B \int		
Waveform Math	unavailable	+, -, ×, ÷	
Waveform Storage	4 waveforms		
Lissajous	Bandwidth	unavailable	20MHz
Figure	Phase Difference	unavailable	± 3 degrees
Communication Interface	USB		
Power Supply	100V-240V AC, 50 / 60Hz		
Li ion Battery	7.4V, 6 hours' operation		
Dimension (W × H × D)	180 × 115 × 40 (mm)		
Weight (without package)	645 g		

+ Multimeter Specifications

Full Scale Reading	3 $\frac{3}{4}$ digit (max 4000 count)	diode	0V - 1.5V
Input Impedance	10 MΩ	On / Off measurement	< 50 (± 30) beeping
Capacitance	51.2nF ~ 100uF : ±(3% ± 3 digit)		
Voltage	VDC : 400mV, 4V, 400V : ±(1 ± 1digit) max input : DC 1000V; VAC : 4V, 40V, 400V : ±(1±3digit) Frequency : 40Hz ~ 400Hz, max input : AC 750V (virtual value)		
Current	DCA : 40mA, 400mA : ±(1.5% ± 1digit), 20A : ±(3% ± 3digit) DAA : 40mA ±(1.5% ± 3digit), 400mA : ±(2 ± 1digit), 20A : ±(3% ± 3digit)		
Impedance	400Ω : ±(1% ± 3digit), 40Ω		

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.



Power Cord



CD Rom



USB



Probe



Probe Adjust



Multimeter Lead



Adapter



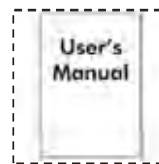
Current Extension Module



Capacitance Ext Module



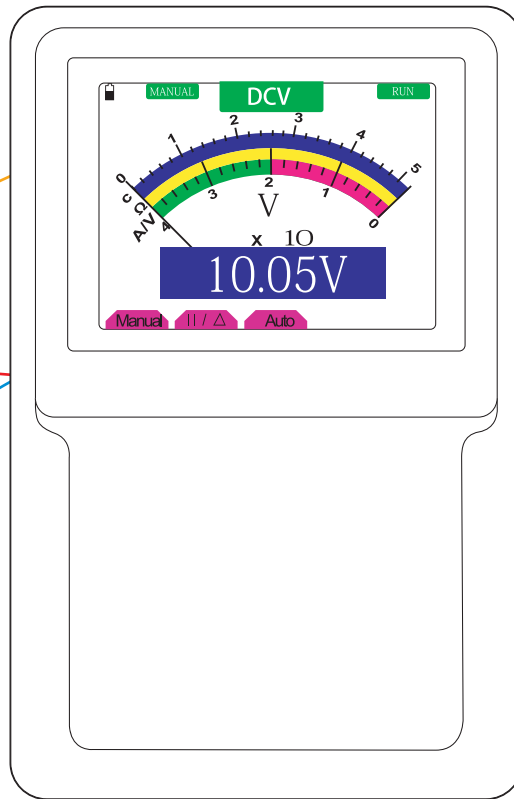
Soft Bag



Manual



Metal Case (optional)



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