OWON®

HDS-I Series   Handheld DSO w/ Channel Isolation

+ 2 in 1 (DSO + Multimeter)

+ with good ISOLATION between channels

+ Auto-scale function

+ FFT function

+ 20 group automatic measurement options

+ Bandwidth : 20MHz

+ USB data transmission supported

+ Rechargeable Li-ion battery

+ Multimeter newly supported SCPI

CE

+ Performance Specifications

Model	HDS1022M-I
Bandwidth	20MHz
Sample Rate	100MS/s
Rise Time (at input, typical)	≤ 17.5ns
Record Length	6K points
Channel	dual, insulated ground of 1000 : 1
Display	3.7'' color TFT LCD, 640 x 480 pixels
Floating Meas. Channel	insulated input ground between multimeter / oscilloscope mode
Input Coupling	DC, AC, and GND
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5
Interval (△T) Accuracy	single: ±(1 interval time + 100ppm x reading + 0.6ns), average>16: ±(1 interval time + 100ppm x reading + 0.4ns)
Vertical Sensitivity	5mV/div - 5V/div (at input)
Vertical Resolution (A/D)	8 bits
Max Input Voltage	400V (DC + AC peak), CAT II
Trigger Type — Edge	rising edge, falling edge
Trigger Type — Video	line, field, randomline, odd / even fields
Trigger Mode	Auto, Normal, and Single
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
DC Accuracy (average)	average >16 : ±(5% reading + 0.05 div) for △V
Waveform Math	+, -, *, /, invert, FFT
Waveform Storage	4 waveforms
Lissajous Figure — Bandwidth	full bandwidth
Lissajous Figure — Phase Difference	±3 degrees

Model	HDS1022M-I
Cursor Measurement	△V, and △T between cursors
Communication Interface	USB host, and USB device
Battery	built-in Li-ion battery, 7.4V / 3500mAh
Dimensions (W x H x D)	113 x 180 x 40 (mm)
Device Weight	645.00 g

+ Multimeter Specifications

Full Scale Reading	$3\frac{3}{4}$ digits (max 4000 count)	Diode	0V - 1.5V
Input Impedance	10 MΩ	On / Off Test	<50 (± 30) beeping
Voltage	VDC : 400mV, 4V, 400V, 1000V : ±(1% ± 1 digit); max input : DC 1000V VAC : 4V, 40V, 400V : ±(1% ± 3 digits), Frequency : 40Hz - 400Hz;max input : AC 750V (virtual value)		
Current	DCA : 40mA, 400mA: ±(1.5% ±1 digit), 10A : ±(3% ± 3 digits) ACA: 40mA: ±(1.5% ± 3 digits); 400mA: ±(2 ± 1 digit); 10A: ±(3% ± 3 digits)		
Impedance	400Ω: ±(1% ± 3 digits); 4KΩ / 40KΩ / 400 KΩ / 4MΩ: ±(1% ± 1 digit); 40MΩ: ±(1.50% ± 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   Manual   USB Cable   Probe   Probe Adjust   Multimeter Lead   Adapter   5V, 1KHz Output

Capacitance Ext Module   Soft Bag (optional)   Metal Case