

## VOLTCRAFT® - TOP PERFORMANCE IN EVERY WAY

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# DSO-2072H HANDHELD OSCILLOSCOPE



Item no: 2380256

The product is a battery operated 3 in 1 - Oscilloscope, multimeter and waveform generator. It has an 8.89 cm LCD color screen (320 x 240 pixels) and USB Type-C™ interface.

## FEATURES

### Oscilloscope:

70 MHz bandwidth , 2 channels // Max. 250 MSa/s sampling rate // Max. 8K record length // 8-bit vertical resolution

### Multimeter:

CATIII 1000 V // 20,000 Counts // Auto-range // TRMS // Measuring type - Voltage, current, resistance, capacitance, on/off, diode

### Waveform generator:

Max. 25 MHz frequency output, 1 channel // Max. 125 MSa/s sampling rate // 0.1 Hz frequency resolution // 14-bit vertical resolution // 8K waveform length

## TECHNICAL DATA

### Oscilloscope

Characteristics	Description
Bandwidth	70 MHz
Channel	2
<b>Sampling</b>	
Sampling method	Sampling, peak detection
Real-time sampling rate	125 MSa/s (Dual channel) 250 MSa/s (Single channel)
Waveform refresh rate	10,000 wfms/s
<b>Input</b>	
Input coupling	DC, AC, ground
Input impedance (DC coupling)	1 MΩ ±2 %, in parallel with 16 pF±10 pF



Characteristics		Description
Probe attenuation		1x, 10x, 100x, 1000x, 10000x
Maximum input voltage		400 V (DC + AC, PK - PK)
Bandwidth limit		20 MHz, Full bandwidth
<b>Horizontal</b>		
Sampling rate range		0.25 Sa/s - 250 MSa/s
Waveform interpolation		(Sinx)/x
Sweep speed range (S/div)		5ns/div - 1000s/div, Stepping in the 1-2-5 way
Time base accuracy		±100 ppm
Record length		8K or 4K optional
<b>Vertical</b>		
Sensitivity (Volt/div) range		10 mV/div - 10 V/div
Displacement range		±6 div
Analog bandwidth		70 MHz
Single bandwidth		Full bandwidth
Low frequency response (AC coupling, -3dB)		≥10 Hz
Rise time (typical on BNC)		≤ 5 ns
DC gain accuracy		3 %
<b>Measurement</b>		
Cursor		ΔV, ΔT
Automatic		Period, Frequency, Mean, PK-PK, Max, Min, Amplitude
<b>Triggering</b>		
Source		CH1, CH2
Type		Edge
Coupling		DC, AC
Trigger type		Auto, normal, single
Trigger electrical level range		±4 divs from the center of the screen
Trigger electrical level accuracy		±0.3 div
Edge triggering	Slope	Rising edge, falling edge

#### Probe compensator output

Characteristics		Description
Output voltage (typical)		3.3 Vpp, High-Z
Frequency (typical)		Square wave 1 kHz (±1 %)

#### Multimeter

Characteristics		Description
Digital display		20,000 readings
Measurement type		Voltage, current, resistance, capacitance, on/off, diode
Maximum input voltage		AC: 750 V/DC: 1000 V
Maximum input current		AC: 10 A/DC: 10 A

Range	Minimum resolution	Accuracy
<b>DC voltage</b>		
200.00 mV	0.01 mV	±(0.43 % +14dig)
2.0000 V	0.1 mV	±(0.43 % +7 dig)
20.000 V	1 mV	
200.00 V	0.01 V	
1000.0 V	0.1 V	±(0.71 % +7 dig)
<b>AC voltage</b>		
200.00 mV	0.01 mV	±(1.14 % +14 dig)

Range	Minimum resolution	Accuracy
2.0000 V	0.1 mV	
20.000 V	1 mV	
200.00 V	0.01 V	
750.0 V	0.1 V	
Frequency range: 40 Hz-1000 Hz		
<b>DC current</b>		
200.00 mA	0.01 mA	±(1.14 % +14 dig)
10.000 A	1 mA	±(3.57 %+ 14 dig)
Overload protection: mA function: self-healing fuse 400 mA/250 V; Ampere function: 10A/600 V, D5.2*20, fast-acting fuse		
<b>AC current</b>		
200.00 mA	0.01 mA	±(1.43 % +14 dig)
10.000 A	1mA	±(4 % +1 dig)
Frequency range: 40 Hz - 1000 Hz Overload protection: mA function: self-healing fuse 400 mA/250 V; Ampere function: 10 A/600 V, D5.2*20, fast-acting fuse		
<b>Resistance</b>		
200.00 Ω	0.01 Ω	±(1.14 % +14 dig)
2.0000 kΩ	0.1 Ω	±(1.14 % +7 dig)
20.000 kΩ	1 Ω	±(1.14 % +4 dig)
200.00 kΩ	10 Ω	
2.0000 MΩ	0.1 kΩ	
20.000 MΩ	1 kΩ	±(1.43 % +4 dig)
100.00 MΩ	0.01 MΩ	±(7.14 % +14 dig)
<b>Capacitance</b>		
20.000 nF	1 pF	±(4.29 % +14 dig)
200.00 nF	10 pF	
2.0000 μF	0.1 nF	
20.000 μF	1 nF	
200.00 μF	10 nF	
2.0000 mF	0.1 uF	
Others	On/Off test	
	Diode test	√(<0-2 V)
	Auto range	√
	TRMS	√

#### Arbitrary Waveform Generator (Optional)

Characteristics	Description	
<b>Waveform Frequency</b>	Sine	0.1 Hz – 25 MHz
	Square	0.1 Hz – 5 MHz
	Ramp	0.1 Hz – 1 MHz
	Pulse	0.1 Hz – 5 MHz
	EXP	0.1 Hz – 5 MHz
<b>Sampling</b>	125 MSa/s	
<b>Amplitude (50 Ω)</b>	0.01V pp - 2.5 Vpp	
<b>DC offset (High Z)</b>	±(2.5 V – Amplitude Vpp/2)	
<b>Frequency Resolution</b>	0.01 %	
<b>Channel</b>	1	
<b>Waveform Depth</b>	8 k	
<b>Vertical Resolution</b>	14 bits	
<b>Output Impedance</b>	50 Ω	

#### Display

Characteristics	Description
Display type	3.5-inch color LCD display
Display resolution	320 horizontal × 240 vertical pixels
Display color	65536 colors
Display Contrast	Adjustable

#### Power supply

Characteristics	Description
Power supply	5 V/DC, 2 A (via USB-C™)
USB-C™ to USB- A cable	Type-C™ to USB 2.0
Power consumption	<5 W
Battery	2x 2200 mAh (3.7 V,18650)

#### Surroundings

Characteristics	Description
Temperature	Working temperature: 0 °C – 40 °C Storage temperature: -20 °C - +60 °C
Relative humidity	≤90 %
Height	Operating: 3,000 meters Non-operating: 15,000 meters
Cooling method	Natural cooling

#### Mechanical specifications

Characteristics	Description
Dimensions (L x H x W)	198 x 96 x 38 mm
Weight	Approx. 0.6 kg (without battery)

#### Software

Characteristics	Description
Supported OS	Windows® XP (Home, Pro, with SP1, SP2, SP3) 32bit, Vista (32 / 64 bit), 7 (32 / 64 bit), 8.0 (32 / 64 bit), 8.1 (32 / 64 bit), 10 (32 / 64 bit)

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 BNC to alligator clip cable // Carrying bag // Multimeter test leads (red & black) //  
 CD-ROM (software + operating instructions + safety sheet + quick guide) // Quick guide // Safety sheet

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