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For more than 40 years, our product range has been dynamically adapting to the constant changes in the industry. We commit to offering first-class quality to our customers while delivering an excellent cost-performance ratio. This philosophy remains the cornerstone of Voltcraft's success.

DSO-2202H + AFG HANDHELD OSCILLOSCOPE



Item no: 2687724

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:

200 MHz bandwidth , 2 channels // Max. 1 GSa/s sampling rate // Max. 8K record length // 8-bit vertical resolution

Multimeter:

CATII 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	200 MHz
Channel	2
Sampling	
Sampling method	Sampling, peak detection
Real-time sampling rate	1 GSa/s
Waveform refresh rate	10,000 wfms/s
Input	
Input coupling	DC, AC, ground
Input impedance (DC coupling)	1 MΩ ±2 %, in parallel with 16 pF±10 pF
Probe attenuation	1x, 10x, 100x, 1000x, 10000x
Maximum input voltage	400 V (DC + AC, PK - PK)
Bandwidth limit	20 MHz, Full bandwidth
Horizontal	
Sampling rate range	0.25 Sa/s - 250 MSa/s
Waveform interpolation	(Sinx)/x
Sweep speed range (S/div)	2ns/div - 1000s/div, Stepping in the 1-2-5 way
Time base accuracy	±100 ppm
Record length	8K
Vertical	
Sensitivity (Volt/div) range	10 mV/div - 10 V/div
Displacement range	±6 div
Analog bandwidth	200 MHz
Single bandwidth	Full bandwidth
Low frequency response (AC coupling, -3dB)	≥10 Hz
Rise time (typical on BNC)	≤1.75 ns
DC gain accuracy	3 %
Measurement	
Cursor	ΔV, ΔT
Automatic	Period, Frequency, Mean, PK-PK, Max, Min, Amplitude
Triggering	
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
DC voltage		
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)
AC voltage		
200.00 mV	0.01 mV	±(1.14 % +14 dig)
2.0000 V	0.1 mV	
20.000 V	1 mV	
200.00 V	0.01 V	
750.0 V	0.1 V	±(1.43 % +14 dig)
Frequency range: 40 Hz-1000 Hz		
DC current		
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		
AC current		
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		
Resistance		
200.00 Ω	0.01 Ω	±(1.14 % +14 dig)
2.0000 kΩ	0.1 Ω	
20.000 kΩ	1 Ω	
200.00 kΩ	10 Ω	
2.0000 MΩ	0.1 kΩ	±(1.43 % +4 dig)
20.000 MΩ	1 kΩ	
100.00 MΩ	0.01 MΩ	
Capacitance		
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	√ (<50 Ω)
	Diode test	√(<0-2 V)
	Auto range	√
	TRMS	√

Arbitrary Waveform Generator (Optional)

Characteristics	Description	
Waveform Frequency	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
Sampling	125 MSa/s	
Amplitude (50 Ω)	0.01V pp - 2.5 Vpp	
DC offset (High Z)	±(2.5 V – Amplitude Vpp/2)	
Frequency Resolution	0.01 %	
Channel	1	
Waveform Depth	8 k	
Vertical Resolution	14 bits	
Output Impedance	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	3.7 V, 2600 mAh, 9.62 Wh

Surroundings

Characteristics	Description
Temperature	Working temperature: 0 °C to 40 °C Storage temperature: -20 °C to +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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