



2 in 1 Handheld Oscilloscope & Multimeter

OHUI2100 Series

- 2 channel oscilloscope. 200/100/60 MHz bandwidth, 1 GSa/s Sample Rate.
- Functions FFT, +, -, *, /.
- 1 M memory depth, high refresh rate (2500 frames).
- 6000 count high precision DMM with an analog barograph.
- 5.6" TFT color LCD display.
- Pass / fail function compares a stored waveform to an unknown input.
- USB host / device; 2.0 full-speed interface, supports removable disks; LAN optional.

Model		OHUI2120	OHUI2110	OHUI2106
Acquisition	Sample Modes	Real-time sample: 1 GS/s; equivalent sample: 25 GS/s		
Acquisition Modes	Normal	Normal data only		
	Peak Detect	High-frequency and random glitch capture		
	Average	Waveform average, selectable 4, 8, 16, 32, 64, 128		
Inputs	Inputs Coupling	AC, DC, GND		
	Inputs Impedance	1 mΩ±2% 20 pF±3 pF		
	Probe Attenuation	1x, 10x		
	Supported Probe Attenuation Factor	1x, 10x, 100x, 1000x		
	Maximum Input Voltage	CAT I and CAT II: 300 VRMS (10x), Installation category; CAT III: 150 VRMS (1x); Installation category II: derate at 20 dB/decade above 100 kHz to 13 V peak AC at 3 MHz and above. For non-sinusoidal waveforms, peak value must be less than 450 V. Excursion above 300 V should be of less than 100 ms duration. RMS signal level including all DC components removed through AC coupling must be limited to 300 V. In order to prevent damage to the instrument, these values shall not be exceeded.		
Horizontal	Sample Rate Range	500 MS/s ~1 GS/s		
	Waveform Interpolation	(sin x)/x		
	Record Length	1 M		
	SEC/DIV Range	2 ns/div ~ 2000 s/div,	4 ns/div ~ 2000 s/div,	
	Sample Rate and Delay Time Accuracy	500ps (at over any ≥1 ms time interval)		
	Position Range	2 ns/div to 10 ns/div; (-4div×s/div) to 20 ms	4 ns/div to 8 ns/div; (-8div × s/div) to 40 ms; 20 ns/div to 80 μs /div; (-8div×s/div) to 40 ms; 200 μs/div to 40 s/div; (-8div×s/div) to 400 s;	
	Delta Time Measurement Accuracy (Full Bandwidth)	Single-shot, normal mode: ± (1 sample interval + 100 ppm × reading + 0.6 ns); >16 averages: ± (1 sample interval + 100 ppm × reading + 0.4 ns); Sample interval = s/div ÷ 200		
Vertical	Vertical Resolution	8-bit resolution, all channel sampled simultaneously		
	Position Range	2 mV/div to 200 mV/div, ±2 V 200 mV/div to 5 V/div, ±50 V		
	Bandwidth	200 MHz	100 MHz	60 MHz
	Rise Time at BNC (Typical)	1.8 ns	3.5 ns	5.8 ns
	Analog Bandwidth in Normal and Average Modes at BNC or with Probe, DC Coupled	2 mV/div to 20 mV/div, ±400 mV; 50 mV/div to 200 mV/div, ±2 V; 500 mV/div to 2 V/div, ±40 V; 5 V/div, ±50 V		
	Math	+, -, *, /, FFT		
	FFT	Windows: Hanning, flat top, rectangular, Bartlett, Blackman; 1024 sample points		
	Bandwidth Limit	20 MHz		
	Low Frequency Response (-3db)	≤10 Hz at BNC		
	DC Gain Accuracy	±3% for normal or average acquisition mode, 5 V/div to 10 mV/div; ±4% for normal or average acquisition mode, 5 mV/div to 2 mV/div		
	DC Measurement Accuracy, Average Acquisition Mode	When vertical displacement is zero, and N ≥16: ± (3% × reading + 0.1div + 1 mV) only 10 mV/div or greater is selected; When vertical displacement is not zero, and N ≥16: ± [3% × (reading + vertical position) + 1% of vertical position + 0.2div]; Add 2 mV for settings from 2 mV/div to 200 mV/div; add 50 mV for settings from 200 mV/div to 5 V/div		
	Volts Measurement Repeatability, Average Acquisition Mode	Delta volts between any two averages of ≥16 waveforms acquired under same setup and ambient conditions		
	Trigger	Trigger Types	Edge, video, pulse, slope, over time, alternative	
Trigger Source		CH1, CH2, AC line		
Trigger Modes		Auto, normal		
Coupling Type		DC, AC, Noise Reject, HF Reject, LF Reject		
Trigger Sensitivity (Edge Trigger Type)		DC (CH1, CH2): 1 div from DC to 10 MHz; 1.5 div from 10 MHz to 100 MHz; 2 div from 100 MHz to Full; AC: Attenuates signals below 10 Hz; HF Reject: Attenuates signals above 80 kHz; LF Reject: Same as the DC-coupled limits for frequencies above 150 kHz; attenuates signals below 150 kHz		

	Trigger Level Range	CH1/CH2: ± 8 divisions from center of screen;
	Trigger Level Accuracy (typical) Accuracy Is for Signals Having Rise and Fall Times ≥ 20 ns	CH1/CH2: 0.2 div \times volts/div within ± 4 divisions from center of screen
	Set Level to 50% (typical)	Operates with input signals ≥ 50 Hz
Video Trigger	Video Trigger Type	CH1, CH2: Peak-to-peak amplitude of 2 divisions;
	Signal Formats and Field Rates, Video Trigger Type	Supports NTSC, PAL and SECAM broadcast systems for any field or any line
	Holdoff Range	100 ns \sim 10 s
Pulse Width Trigger	Pulse Width Trigger Mode	Trigger when (<, >, =, or \neq); positive pulse or negative pulse
	Pulse Width Trigger Point	Equal: The oscilloscope triggers when the trailing edge of the pulse crosses the trigger level. Not equal: If the pulse is narrower than the specified width, the trigger point is the trailing edge. Otherwise, the oscilloscope triggers when a pulse continues longer than the time specified as the pulse width. Less than: The trigger point is the trailing edge. Greater than (also called overtime trigger): The oscilloscope triggers when a pulse continues longer than the time specified as the Pulse Width
	Pulse Width Range	20 ns \sim 10 s
Slope Trigger	Slope Trigger Mode	Trigger when (<, >, =, or \neq); positive slope or negative slope
	Slope Trigger Point	Equal: The oscilloscope triggers when the waveform slope is equal to the set slope. Not equal: The oscilloscope triggers when the waveform slope is not equal to the set slope. Less than: The oscilloscope triggers when the waveform slope is less than the set slope. Greater than: The oscilloscope triggers when the waveform slope is greater than the set slope
	Time Range	20 ns \sim 10 s
Overtime Trigger	Over Time Mode	Rising edge or falling edge
	Time Range	20 ns \sim 10 s
Alternative Trigger	Trigger on CH1	Internal trigger: edge, pulse width, video, slope
	Trigger on CH2	Internal trigger: edge, pulse width, video, slope
Trigger Frequency Counter	Readout Resolution	6 digits
	Accuracy (typical)	± 30 ppm (including all frequency reference errors and ± 1 count errors)
	Frequency Range	AC coupled, from 4 Hz minimum to rated bandwidth
	Signal Source	Pulse width or edge trigger modes: all available trigger sources The Frequency counter measures trigger source at all times, including when the oscilloscope acquisition pauses due to changes in the run status, or acquisition of a single shot event has completed. Pulse width trigger mode: The oscilloscope counts pulses of significant magnitude inside the 1 s measurement window that qualify as triggerable events, such as narrow pulses in a PWM pulse train if set to < mode and the width is set to a relatively small time. Edge trigger mode: The oscilloscope counts all edges of sufficient magnitude and correct polarity. Video trigger mode: The frequency counter does not work.
Display	Display Resolution	640 x 480 pixels
	Display Contrast	Adjustable (16 gears) with the progress bar
Probe Compensator Output	Output Voltage (Typical)	About 5 Vpp into ≥ 1 m Ω load
	Frequency (Typical)	1 kHz
Power Supply	Supply Voltage	AC Input: 100-240 VACRMS, 0.6 A MAX, 50 Hz \sim 60 Hz DC Output: 9 V, 2 A
	Power Consumption	<30 W
Environmental	Temperature	Operating: 32 $^{\circ}$ F to 122 $^{\circ}$ F (0 $^{\circ}$ C to 50 $^{\circ}$ C); Nonoperating: -40 $^{\circ}$ F to 159.8 $^{\circ}$ F (-40 $^{\circ}$ C to +71 $^{\circ}$ C)
	Cooling Method	Convection
	Humidity	+104 $^{\circ}$ F or below (+40 $^{\circ}$ C or below): $\leq 90\%$ relative humidity; 106 $^{\circ}$ F to 122 $^{\circ}$ F (+41 $^{\circ}$ C to 50 $^{\circ}$ C): $\leq 60\%$ relative humidity
Mechanical	Altitude	Operating: < 3,000 m (10,000 ft); Nonoperating: <15,000 m (50,000 ft)
	Size	245 mm x 163 mm x 52 mm
	Weight	2.8 kg (with packing); 1.2 kg (without packing)

DMM Mode	Max. Resolution	6000 counts	
	DMM Testing Modes	Voltage, current, resistance, capacitance, diode & continuity	
	Max. Input Voltage	AC: 600 V, DC: 800 V	
	Max. Input Current	AC: 10 A, DC: 10 A	
	Input Impedance	10 mΩ	
	DMM Trend Plot	1.2 M Point	
Range	Resolution	Accuracy	Resolution
DC Voltage	60.00 mV	±1%±3 digit	10 μV
	600.0 mV		100 μV
	6.000 V		1 mV
	60.00 V		10 mV
	600.0 V		100 mV
	800 V		1 V
AC Voltage	60.00 mV	±1%±3 digit	10 μV
	600.0 mV		100 μV
	6.000 V		1 mV
	60.00 V		10 mV
	600.0 V		100 mV
DC Current	60.00 mA	±1%±5 digit	10 μA
	600.0 mA	±1.5%±5 digit	100 μA
	6.000 A		1 mA
	10.00 A		10 mA
AC Current	60.00 mA	±1%±5 digit	10 μA
	600.0 mA	±1.5%±5 digit	100 μA
	6.000 A		1 mA
	10.00 A		10 mA
Resistance	600 Ω	±1%±3 digit	0.1 Ω
	6.000 KΩ		1 Ω
	60.00 KΩ		10 Ω
	600.0 KΩ		1 KΩ
	6.000 mΩ		10 KΩ
	60.00 mΩ	±1%±5 digit	100 KΩ
Capacitance	40.00 nF	±2%±5 digit	10 pF
	400.0 nF		100 pF
	4.000 μF		1 nF
	40.00 μF		10 nF
	400.0 μF		100 nF
	Attention: the smallest capacitance value that can be measured is 5 nF.		
Diode	0 V ~ 2.0 V		
On-Off Test	<10 Ω		

Options:

OHUI2100-A6	LAN interface
--------------------	---------------