Tablet Oscilloscope

4CH, 150MHz Bandwidth Scope + DMM

TO1154C

Accessory

Features

Portable real-time touchscreen oscilloscope.

- 150MHz bandwidth with 4 channels.
- 1GSa/s sample rate, 8M memory depth.
- 2mV to 10V vertical resolution.
- With rechargeable 10000mAh lithium battery.
- USB Type C interface for charging and remote control.
- USB 2.0 device interface, support removable storage device.
- 7-inch TFT color LCD display, 800x480 resolution, touch screen.
- With digital multimeter with record function to monitor voltage, current, resistor data changing.

Specification

Oscilloscope	
Acquisition	
Max. Sampling Rate	1 GSa/s
Max. Recording Length	8Mpts
Acquisition Mode	Normal, Peak Detect, Average, HR (High Resolution)
Interpolation	(Sin x)/x
Vertical	
Analog Channels	4 channels
Bandwidth	150MHz
Input Coupling	AC, DC, GND
Bandwidth Limit	20 MHz (selectable)
Input Impedance	1MΩ±2%, 25pF±3pF at BNC
Input Sensitivity Range	2mV/div to 10V/div
Vertical Resolution	8 bit
Max. Input Voltage	300 Vrms CAT II (with 10x probe)
Dynamic range	± 5 div
Probe Attenuation Factors	1x, 2x, 5x, 10x, 20x, 50x, 100x, 200x, 500x, 1000x, 2000x, 5000x, 10000x
DC Gain Accuracy	±3% full scale derated at 0.10%/°C above 30 °C (Guaranteed, specification valid after 30 minute warm-up and Signal Path Compensation at ambient.)
Offset Range	2 mV/div to 100 mV/div : ±1 V

	200 mV/div to1 V/div : ±10 V 2 V/div to 10 V/div : ±50 V
Horizontal	
Timebase Range	2 ns/div to 100 s/div (in 1-2-5 sequence)
Time Modes	YT, XY, Roll
Delta Time Measurement Accuracy (Full Bandwidth)	Single-shot, Normal mode: ± (1 sample interval +100ppm × reading + 0.6ns) >16 averages: ± (1 sample interval + 100ppm × reading + 0.4ns) Sample interval = s/div ÷ 200
Trigger	
Trigger Source	Channel 1, Channel 2, Channel 3, Channel 4
Trigger Mode	Auto, normal, and single
Autoset	Finds and displays all active channels and external trigger. And automatically configures the best display of the input signals on these channels.
Trigger Holdoff Range	8 ns to 10 s
Trigger Sensitivity	Any analog input channel: ± 0.2 div (Edge type, DC coupled)
Trigger Level Ranges	Any input channel ±4 divisions from center of screen
Trigger Type	Edge, Pulse Width, Video, Slop, Timeout
Measurement	
Automatic Measurements	Peak-Peak, Max, Min, Vtop, Vmid, Vbase, Vamp, Average, R-Overshoot, F-Overshoot, R-Preshoot, F-Preshoot, Variance, PeriodAvg, RMS, PeriodRMS, Period, Frequency, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, MaxTime, MinTime, BWidth, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF, R-PhaseAB, F-PhaseAB, +Pulse CNT, -Pulse CNT, RE Count, FE Count, Trig Count
Cursors	Delta V (△V): Voltage difference between cursors Delta T (△T): Time difference between cursors Reciprocal of △T in Hertz (1/ΔT)
Math Functions	+, -, x , ÷, FFT
FFT points	1024
FFT Units	Magnitude: linear (Vrms) and log (dBm)
FFT Windows	Rectangular, Hamming, Hanning, Blackman, Bartlett, Flattop
Storage	
Save/recall (non-volatile)	Images, data, setups and waveforms can be saved and recalled internally
Storage mode	Image format: .bmp

	Data formats: .lwf, .csv, .pho, .ref		
I/O	USB 2.0 host (Type C), USB 2.0 device (Type A)		
Display System			
Display	7" TFT LCD resistive touch display		
Resolution	480 vertical by 800 horizontal		
Waveform styles	Vectors, dots, variable persistence, and infinite persistence		
Grid	Selectable between full, dotted, and none		
Language support	English, Simplified Chinese		

Notes:

Denotes warranted specifications, all others are typical. Specifications are valid after a 30 -minute warm-up period and within ± 5 °C of last calibration temperature.

Digital Multimeter			
Max. Resolution	4000 points		
Measurement Mode	Voltage, Current, Resistance, Capacitance, Diode, Continuity		
Max. Input Voltage	600V		
Max. Input Current	10A		
Input Impedance	10MΩ		
Function	**Range**	**Resolution**	**Accuracy**
DC Voltage	400mV	100μV	± (1%+2)
	4.000V	1mV	
	40.00V	10mV	
	400.0V	100mV	
	600.0V	1V	
	Overload protection: the range of 400mV is 250V, and the rest ranges are 600Vrms.		
AC Voltage	4.000V	1mV	± (1.2%+5)
	40.00V	10mV	
	400.0V	100mV	
	600.0V	1V	± (1.5%+5)
	Frequency range: 40Hz to 400Hz		
	400V and 600V frequency range: 40Hz to 100Hz		
DC Current	40.00mA	10μA	± (1%+2)
	200.0mA	100μA	± (1.5%+2)
	4.000A	1mA	± (1.8%+2)
	10.00A	10mA	± (3%+2)
	Overload protection: resettable fuse 200mA/250V, no fuse for 4A and 10A.		
AC Current	40.00mA	10μA	± (1.3%+2)

	400.0mA	100µA	± (1.8%+2)
	4.000A	1mA	± (2%+3)
	10.00A	10mA	± (3%+5)
	Frequency range: 40Hz to 400Hz		
	Resettable fuse: 200mA/250V, no fuse for 4A and 10A.		
Resistance	400.0Ω	0.1Ω	± (1%+3)
	4.000Ω	1Ω	± (1.2%+5)
	60.00Ω	10Ω	
	400.0Ω	100Ω	
	4.000Ω	1KΩ	
	40.00Ω	10KΩ	± (1.5%± 3)
	Overload protection: 220Vrms		
Capacitance	40.00nF	10pF	± (3%+5)
	400.0nF	100pF	
	4.000µF	1nF	
	40.00µF	10nF	
	100.0µF	100nF	
	Overload protection: 220Vrms		
Diode	0V to 1.0V		
Continuity	< 50Ω		

Notes:

Accuracy is given as ± (% of reading + counts of least significant digit) at 23 ± 5 °C, with relative humidity < 80 RH.

General	
Power Adapter	Line voltage range: 100 - 240VAC, 50 - 60Hz Output voltage: 5VDC, 3A or 9VDC, 2A or 12VDC, 1.5A
Battery	Li-Ion rechargeable battery pack, 3.7V 10.4Ah
Power Consumption	8W
Fast charging	Support
Operating Temperature	0 to 50 °C
Storage Temperature	0 to 40 °C
Humidity	≤+40°C: ≤90% relative humidity, +41°C to 50°C: ≤60% relative humidity
Altitude	Up to 3,000m
Cooling Method	Convection
Dimension	248 x 176 x 54 mm (W x H x D)
Weight	< 1.2kg