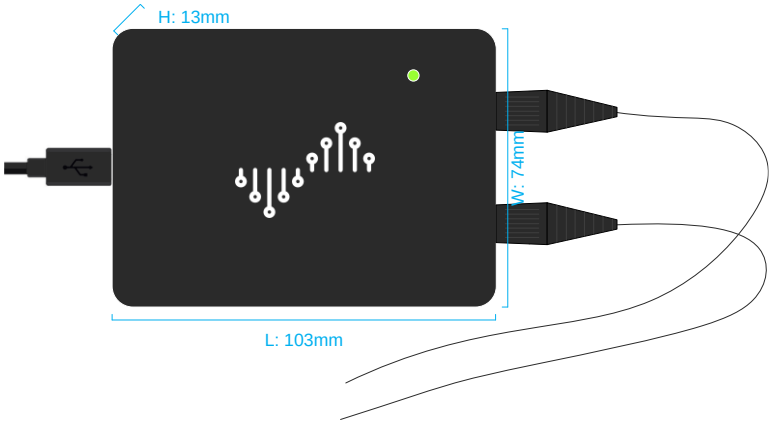
DSCope C20P

USB-based Digital Oscilloscope

Key Features

- 2 analog channels
- 50MHz bandwidth
- Up to 200MSa/s sample rate
- Up to 256Mbits hardware memory
- Ultra-portable size
- Unibody aluminum case
- 3-year warranty



Connectivity

- Main Type-C USB 2.0 interface
- Auxiliary Type-C USB interface
- MCX connectors (with MCX-to-BNC adapter)
- Extension interface (1.27mm 2x3 DuPont)

Power Source

- Power source voltage: $5V_{DC} \pm 5\%$
- Power consumption: 2.5 W maximum

Input output ports

	Direction	Descriptions	Protected Voltage Range
Main USB 2.0 data port	InOut	Connect to host computer	4.75v ~ 5.25v
Auxiliary USB power port	Input	Auxiliary power	3.6v ~ 5.5v
MCX connectors	Input	Connect to probes	-100v ~ +100v (DC+AC)
Extension interface	InOut	Extension probes and module	0-3.3v
Probe compensator	Output	3v 1KHz square wave	--

Designed to make your work enjoyable

DSCope C20P is a USB-based digital oscilloscope, which has a portable size (103x74x13mm), but powerful performance (up to 200MSa/s sample rate). With the easy-to-use and cross platform software, DSView, you can use your favorite computer to debug and analysis your circuits, observe the analog wave and its frequency spectrum at anywhere and anytime.

Technical Specifications

Vertical system

Analog Bandwidth:	50MHz	
Input coupling:	DC or AC	
Input impedance:	1MΩ // ~18pF	
Input sensitivity range:	10mV/Div to 2V/Div	
Vertical resolution:	8bits	
Maximum input voltage:	peaks ≤ ±100V	
DC gain accuracy:	±6%	
Vertical position range:	±5 divisions	
Vertical offset ranges:	Volts/Div setting	Offset rang
	10mV/Div ~ 2V/Div	±100mV ~ ±20V/Div
Common mode rejection ratio(CMRR):	--	
Channel-to-channel isolation:	--	

Horizontal system

Time base range:	10ns/Div to 10s/Div
Maximum duration of time captured at highest sample rate (all channels):	10ms (real-time capture) 100ms (single capture)
Record Length (real-time capture):	1M (2 channels enabled) 2M (1 channel enabled)
Record Length (single capture):	16M (2 channels enabled) 32M (1 channel enabled)

Trigger system

Trigger mode:	Auto Normal (ch0, ch1, ch0 & ch1, ch0 || ch1)
Trigger position range:	0% ~ 99% of record length
Trigger holdoff range:	1 us ~ 10 s
Trigger types:	Edge (rising or falling)
Sensitivity:	0 ~ 0.625 vertical division
Trigger level ranges:	±4.4 vertical division from center screen

Waveform measurements

Cursors:	Horizontal Width/Frequency/Period/Duty Vertical Amplitude
Automated measurements:	Frequency / Period Vmax / Vmin / Vp-p Vrms / Vmean

Waveform math

FFT:	Spectrum magnitude Length: 1K ~ 16K Vertical scale: Linear RMS or DBV RMS Window: Rectangle, Hann, Hamming, Blackman, Flat_top

System Requirements

Windows XP, Vista, Win7, Win8 & Win10
Mac OS X 10.9 or above
Linux: Ubuntu, Fedora, Arch, etc.
USB 2.0 Host port

Safety & Caution

- *If you are using a mains powered (grounded) host computer, the ground terminals of DSCope is also connected to the real ground, you must avoid to connect any ground terminals to HOT DUTs.*
- *DSCope has the overcurrent protection, but we recommend that you should try to avoid any short circuit event. After all the ability of upstream USB port is an uncertain factor.*

Revision History

The following table shows the revision history for this document.

Date(DD/MM/YY)	*Version*	*Revision*
01/07/18	*v1.0*	*Initial release (based on DSView v0.99)*