

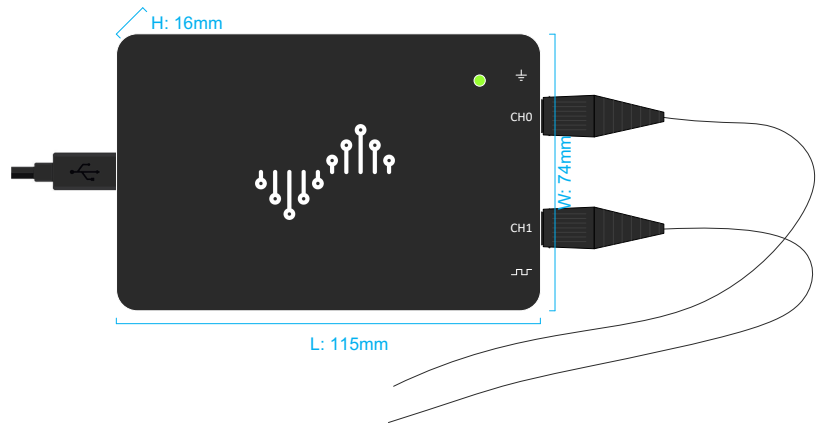


# DSCope U2P20

## 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
- 1-year warranty



### Connectivity

- Main Type-C USB 2.0 interface
- Auxiliary Type-C USB interface
- BNC connectors (Standard Probe Interface)
- Extension interface (Pogo Pin Connector)

### 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	4.5v ~ 5.5v
BNC 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 U2P20 is a USB-based digital oscilloscope, which has a portable size (115x74x16mm), 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:	1M $\Omega$ // ~20pF	
Input sensitivity range:	10mV/Div to 2V/Div	
Vertical resolution:	8bits	
Maximum input voltage:	peaks $\leq$ $\pm$ 100V	
DC gain accuracy:	$\pm$ 6%	
Vertical position range:	$\pm$ 5 divisions	
Vertical offset ranges:	Volts/Div setting 10mV/Div ~ 2V/Div	Offset rang $\pm$ 100mV ~ $\pm$ 20V/Div
Common mode rejection ratio(CMRR):	--	
Channel-to-channel isolation:	--	

### Horizontal system

Maximum sample rate (single channel)	200MSa/s	
Maximum sample rate (dual channel)	100MSa/s	
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 (dual channel) 2M (single channel)	
Record Length (single capture):	16M (dual channel) 32M (single channel)	

### Trigger system

Trigger mode:	Auto Normal (ch0, ch1, ch0 & ch1, ch0    ch1)	
Trigger position range:	1% ~ 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:	$\pm$ 4.4 vertical division from center screen	

### Waveform measurements

Cursors:	Horizontal Width/Frequency/Period/Duty Vertical Amplitude	
Automated measurements:	Frequency / Period / +Duty / - Duty / +Count Rise / Fall / +Width / -Width / BrstW Amplitude / High / Low / RMS / Mean Pk-Pk / Max / Min / +Over / -Over	

## Waveform math

FFT:	Spectrum magnitude Length: 1K ~ 16K Vertical scale: Linear RMS or DBV RMS Window: Rectangle, Hann, Hamming, Blackman, Flat_top
Math:	Add / Subtract / Multiply / Divide

## Waveform display

Time domain:	Real-time view Single capture view
X-Y mode:	Lissajous Figure

## System Requirements

Windows XP, Vista, Win7, Win8 & Win10

Mac OS X 10.12 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.*

<i>Date(DD/MM/YY)</i>	<i>Version</i>	<i>Revision</i>
<i>18/02/20</i>	<i>v2.1</i>	<i>Minor fix (based on DSView v1.10)</i>
<i>10/09/19</i>	<i>v2.0</i>	<i>Functional Enhancement (based on DSView v1.00)</i>
<i>01/08/19</i>	<i>v1.1</i>	<i>BNC model (based on DSView v0.99)</i>
<i>01/07/18</i>	<i>v1.0</i>	<i>Initial release (based on DSView v0.99)</i>