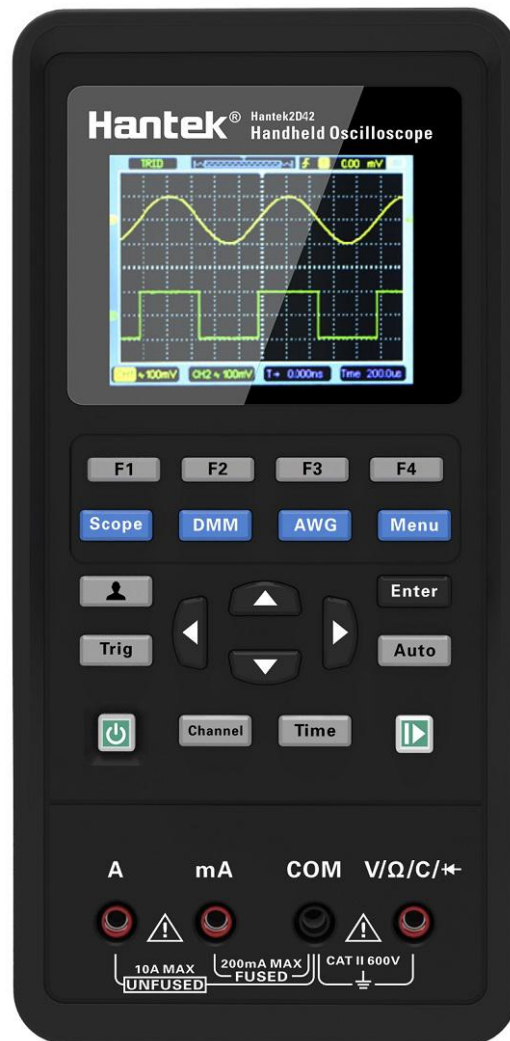


## Mini Handheld Oscilloscope

2 CH, 40MHz Bandwidth, 250MSa/s Sample Rate + DMM + AWG

Hantek2D42

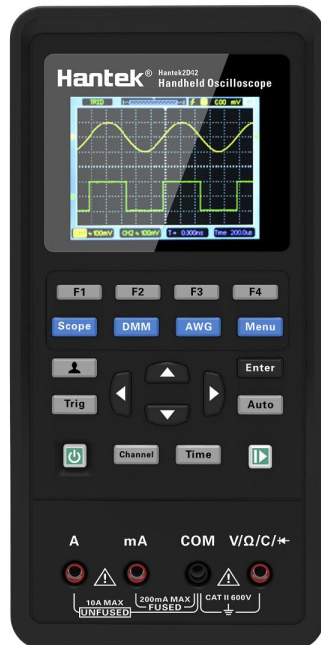


### Accessory



## Features

### Oscilloscope Function



- 2 channels oscilloscope, 40MHz bandwidth, 250M sampling rate.
- 10mV-10V/DIV high input sensitivity and large input range.
- Auto automatic measuring function.
- Adjustable backlight brightness, backlight duration, and auto power off time.
- Cursor measurement, reference waveform, waveform storage function.
- Color highlight LCD screen, legible even in bright sunlight.
- Powered by two universal ICR18650 lithium battery only, be able to work continuously for a full day and standby over 8 weeks.
- Digital voltmeter function.
- Key tone settings.
- Full function PC software.

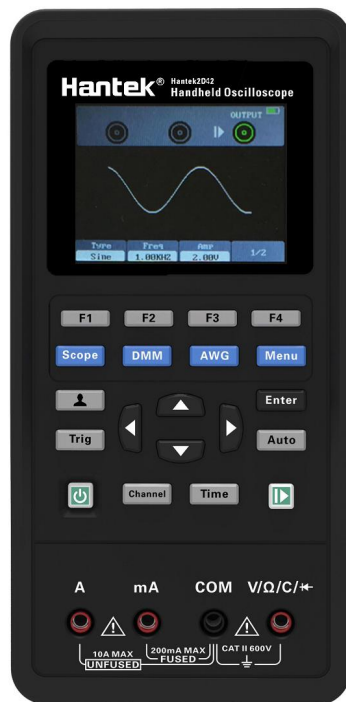
### Multimeter Function

With standard multi-functional digital multimeter which can be used to measure AC/DC voltage, current, resistance, diode, capacitance, continuity test.

- **V~** AC Voltage
- **V-** DC Voltage
- **A~** AC Current
- **A-** DC Current
-  Diode Test
-  On-off Buzzer
- **Ω** Resistance Test
- **C** Capacitance Test



## Arbitrary/Function Waveform Generator Function



- 1 channel arbitrary/function waveform generator.
- 250MSa/s sampling rate.
- 12 bits vertical resolution.
- Output sine wave, square wave, triangle wave, trapezoidal wave and arbitrary wave.
- Sine: 1Hz-25MHz
- Square: 1Hz-10MHz
- Triangle: 1Hz-1MHz
- Trapezoid: 1Hz-5MHz
- 4 types arbitrary wave
- Frequency resolution: 1Hz.

### Specification

| Model | Hantek2D42 |
|-------|------------|
|-------|------------|

### OSCILLOSCOPE

|           |       |
|-----------|-------|
| Bandwidth | 40MHz |
| Channel   | 2 CH  |

### Horizontal

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| Real-time Sampling Rate | 250MSa/s dual channels, 125MSa/s single channel         |
| Waveform Interpolation  | (sin x)/x                                               |
| Memory Depth            | Max. 6K for single-channel; 3K samples per dual-channel |
| Time Base Range         | 5ns/div-500s/div (1-2-5 sequences)                      |

### Vertical

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Vertical Resolution           | 8Bit, all channel sampled simultaneously   |
| Input Sensitivity             | 10mV/div~10V/div at BNC inupt              |
| Bandwidth Limit ( Typical )   | 20MHz                                      |
| Low Frequency Response (-3db) | ≤10Hz at BNC                               |
| Rise Time at BNC (Typical )   | ≤9 ns                                      |
| DC Gain Accuracy              | ±3% for Normal or Average acquisition mode |

Note: Bandwidth down to 6MHz when probe at X1

### Acquisition

|                  |        |
|------------------|--------|
| Acquisition Mode | Normal |
|------------------|--------|

### Trigger

|                        |                                                              |
|------------------------|--------------------------------------------------------------|
| Trigger Type           | Edge                                                         |
| Trigger Mode           | Auto, Normal, Single                                         |
| Trigger Level Range    | ±4 divisions from center of screen                           |
| Trigger Level Accuracy | 0.2div × volts/div within ±4 divisions from center of screen |
| Slope                  | Rising edge, Falling edge, Rising or Falling edge            |
| Source                 | CH1, CH2                                                     |

### Input

|                                    |                      |
|------------------------------------|----------------------|
| Inputs Coupling                    | AC, DC, GND          |
| Input Impedance                    | 25pF±3pF, 1MΩ±2%     |
| Probe Attenuation                  | 1X, 10X              |
| Supported Probe Attenuation Factor | 1X, 10X, 100X, 1000X |
| Maximum Input Voltage              | 150VRMS              |

### Measurement

|                    |                                                |
|--------------------|------------------------------------------------|
| Cursor Measurement | Voltage difference between cursors: $\Delta V$ |
|                    | Time difference between cursors: $\Delta T$    |
| Auto Measuerment   | Frequency, Amplitude                           |

### MULTIMETER

|                    |                                                      |
|--------------------|------------------------------------------------------|
| Maximum Resolution | 4000 Counts                                          |
| DMM Testing Modes  | Voltage,Current,Resistance,Capacitance,Diode &On-Off |

|                       |                                                            |                    |              |
|-----------------------|------------------------------------------------------------|--------------------|--------------|
| Maximum Input Voltage | AC:600V, DC: 800V                                          |                    |              |
| Maximum Input Current | AC: 10A, DC:10A                                            |                    |              |
| Input Impedance       | 10M $\Omega$                                               |                    |              |
| Measurement Term      | Range                                                      | Accuracy           | Resolution   |
| DC Voltage            | 400.00mV                                                   | $\pm (0.8\% + 5)$  | 100uV        |
|                       | 4.000V                                                     |                    | 1mV          |
|                       | 40.00V                                                     |                    | 10mV         |
|                       | 400.0V                                                     |                    | 100mV        |
|                       | 600.0V                                                     | $\pm (1\% + 2)$    | 1V           |
|                       | Overload protection: 400mV: 250V, other: 600Vrms.          |                    |              |
| AC Voltage            | 4.000V                                                     | $\pm (1.2\% + 5)$  | 1mV          |
|                       | 40.00V                                                     |                    | 10mV         |
|                       | 400.0V                                                     |                    | 100mV        |
|                       | 600.0V                                                     | $\pm(1.5\% + 5)$   | 1V           |
|                       | Frequency: 40Hz~400Hz                                      |                    |              |
|                       | Frequency of 400V and 600V: 40Hz~100Hz                     |                    |              |
| DC Current            | 40.00mA                                                    | $\pm (1.3\% + 2)$  | 10uA         |
|                       | 200.0mA                                                    | $\pm (1.8\% + 2)$  | 100uA        |
|                       | 4.000A                                                     | $\pm (2\% + 3)$    | 1mA          |
|                       | 10.00A                                                     | $\pm (3\% + 5)$    | 10mA         |
|                       | Self restoring fuse: 200mA/250V, 4A and 10A range no fuse. |                    |              |
| AC Current            | 40.00mA                                                    | $\pm (1.3\% + 2)$  | 10uA         |
|                       | 400.0mA                                                    | $\pm (1.8\% + 2)$  | 100uA        |
|                       | 4.000A                                                     | $\pm (2\% + 3)$    | 1mA          |
|                       | 10.00A                                                     | $\pm (3\% + 5)$    | 10mA         |
|                       | Frequency: 40Hz~400Hz                                      |                    |              |
|                       | Self restoring fuse: 200mA/250V, 4A and 10A range no fuse. |                    |              |
| Resistance            | 400.0 $\Omega$                                             | $\pm(1\% + 3)$     | 0.1 $\Omega$ |
|                       | 4.000K $\Omega$                                            | $\pm(1.2\% + 5)$   | 1 $\Omega$   |
|                       | 60.00K $\Omega$                                            |                    | 10 $\Omega$  |
|                       | 400.0K $\Omega$                                            |                    | 100 $\Omega$ |
|                       | 4.000M $\Omega$                                            |                    | 1K $\Omega$  |
|                       | 40.00M $\Omega$                                            | $\pm (1.5\%\pm 3)$ | 10K $\Omega$ |
|                       | Overload protection: 220Vrms                               |                    |              |
| Capacitance           | 40.00nF                                                    | $\pm(3\% + 5)$     | 10pF         |
|                       | 400.0nF                                                    |                    | 100pF        |
|                       | 4.000uF                                                    |                    | 1nF          |
|                       | 40.00uF                                                    |                    | 10nF         |
|                       | 100.0uF                                                    |                    | 100nF        |

|        |                              |
|--------|------------------------------|
|        | Overload protection: 220Vrms |
| Diode  | 0V~1.0V                      |
| On-Off | <50Ω                         |

#### ARBITRARY WAVEFORM GENERATOR

|                      |                       |
|----------------------|-----------------------|
| Waveform Frequency   | Sine: 1Hz~25MHz       |
|                      | Square: 1Hz~10MHz     |
|                      | Triangle: 1Hz~1MHz    |
|                      | Trapezoidal: 1Hz~5MHz |
| Sampling Rate        | 250MSa/s              |
| Amplitude            | 2.5Vpp (50Ω)          |
|                      | 5Vpp (High impedance) |
| Frequency Resolution | 0.001                 |
| Channel              | 1CH waveform output   |
| Waveform Depth       | 512 Sa                |
| Vertical Resolution  | 12 bit                |
| Frequency Stability  | <30ppm                |
| Output Impedance     | 50 Ω                  |

#### GENERAL CHARACTERISTICS

##### Display

|                    |                                       |
|--------------------|---------------------------------------|
| Display Type       | 2.8 inch 64K color TFT                |
| Display Resolution | 320 horizontal by 240 vertical pixels |

##### Power Supply

|                   |                                            |
|-------------------|--------------------------------------------|
| Supply Voltage    | 100V-240VAC, 50Hz-60Hz; DC INPUT: 5VDC, 2A |
| Power Consumption | <2.5W                                      |
| Fuse              | T, 3A                                      |
| Battery           | 2600mA*2                                   |

##### Environmental

|                       |                           |
|-----------------------|---------------------------|
| Operating Temperature | 0~50 °C (32~122 °F)       |
| Storage Temperature   | -40~+71 °C (-40~159.8 °F) |
| Cooling Method        | Convection                |

##### Mechanical

|           |                             |
|-----------|-----------------------------|
| Dimension | 199 x 98 x 40mm (L x W x H) |
| Weight    | 400g                        |