

## INTRODUCTION

The Metravi OM-40 and OM-100 are compact and versatile Handheld Digital Oscilloscopes, designed to meet the demands of various electronic measurement and troubleshooting jobs.

With a bandwidth of 40/100 MHz, they offer reliable and efficient solutions for measuring and analysing electronic signals. The dual-channel configuration allows simultaneous monitoring and comparison of two signals, enhancing the utility for diverse applications.

They offer a handheld design and portability without compromising on performance. The intuitive interface and controls make them user-friendly, catering to both professionals and enthusiasts in the field of electronics.

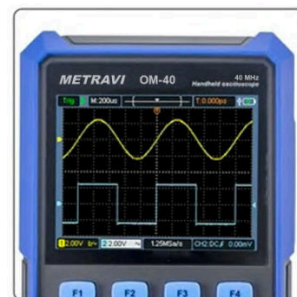
The oscilloscope's compact size and dual-channel capability make it suitable for field measurements, making them ideal tools for field engineers, technicians as well as hobbyists.

They are equipped with a clear and vibrant display for visualising waveforms, enabling users to analyse signal characteristics easily. They also come with various measurement functions, trigger options, and data recording capabilities, making them versatile for troubleshooting and diagnostics.



## FEATURES

- Simultaneous monitoring and comparison of two signals
- Portable and compact
- Intuitive controls and interface
- Clear and vibrant display
- Various measurement functions to analyse signal characteristics
- Trigger options for precise waveform captures
- Recording and storing of data for further analysis



3.5-inch Digital Color LCD Display



Oscilloscope Input & Waveform Generator Output



Calibration Signal & Type-C USB Interface



Multimeter Input Connectors

\*Technical Specifications & Appearance are subject to change without prior notice

**TECHNICAL SPECIFICATIONS**

**OSCILLOSCOPE:**

Model	OM-40	OM-100
Bandwidth	40MHz	100MHz
Channels	2-CH Oscilloscope	
Sample Rate	250MSa/s	500MSa/s
Acquisition Model	Normal, Peak detect	
Record Length	8K	
Display	3.5-inch LCD	
Waveform Refresh Rate	10,000 wfms/s	
Input Coupling	DC, AC and Ground	
Input Impedance	1 MΩ±2%, in parallel with 16pF±10pF	
Probe Attenuation Factors	1X, 10X, 100X, 1000X, 10000X	
Max. Input Voltage	400V (DC+AC, PK-PK, 1MΩ input impedance) (10:1 probe attenuation)	
Bandwidth Limit (Typical)	20MHz	
Horizontal Scale	5ns/div - 1000s/div, step by 1-2-5	2ns/div - 1000s/div, step by 1-2-5
Vertical Sensitivity	10mV/div - 10V/div	
Vertical Resolution	8 bits	
Trigger Type	Edge	
Trigger Modes	Auto, Normal, Single	
Automatic Measurement	Frequency, Period, Amplitude, Max, Min, Mean, PK-PK	
Cursor Measurement	ΔV, ΔT, ΔT & ΔV between cursors	
Communication Interface	USB Type-C	

**MULTIMETER:**

Max. Resolution	20,000 counts
Testing Mode	Voltage, Current, Resistance, Capacitance, Diode and Continuity test
Input Impedance	10MΩ
Max Input Voltage	AC 750V, DC 1000V
Max Input Current	DC:10A AC:10A
Diode	0-2V



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## TECHNICAL SPECIFICATIONS

### MULTIMETER:

#### DC Current

Range	Min. Resolution	Accuracy
200.00mA	0.01mA	±(0.8%+10 dig)
10.000A	1mA	±(2.5%+10 dig)

Overload protection:

mA function: self-healing fuse 400 mA/250 V;

Ampere function: 10 A/600 V, D5.2\*20, fast-acting fuse

#### AC Current

Range	Min. Resolution	Accuracy
200.00mA	0.01mA	±(1%+10 dig)
10.000A	1mA	±(2.8%+10 dig)

Frequency range: 40Hz-1000Hz

Overload protection:

mA function: self-healing fuse 400 mA/250 V; Ampere

function: 10 A/600 V, D5.2\*20, fast-acting fuse.

#### DC Voltage

Range	Min. Resolution	Accuracy
200.00mV	0.01mV	±(0.3%+10 dig)
2.0000V	0.1mV	±(0.3%+5 dig)
20.000V	1mV	
200.00V	0.01V	
1000.0V	0.1V	

#### AC Voltage

Range	Min. Resolution	Accuracy
200.00mV	0.01mV	±(0.8%+10 dig)
2.0000V	0.1mV	±(1%+10 dig)
20.000V	1mV	
200.00V	0.01V	
750.0V	0.1V	

Frequency range: 40Hz-1000Hz

#### Resistance

Range	Min. Resolution	Accuracy
200.00Ω	0.01Ω	±(0.8%+10 dig)
2.0000kΩ	0.1Ω	±(0.8%+5 dig)
20.000kΩ	1Ω	±(0.8%+3 dig)
200.00kΩ	10Ω	
2.0000MΩ	0.1kΩ	
20.000MΩ	1kΩ	±(1%+3 dig)
100.00MΩ	0.01MΩ	±(5%+10 dig)

#### Capacitance

Range	Min. Resolution	Accuracy
20.000nF	1pF	±(3.0%+10 dig)
200.00nF	10pF	
2.0000μF	0.1nF	
20.000μF	1nF	
200.00μF	10nF	
2.0000mF	0.1uF	

#### Others

Range	Min. Resolution
On/Off Test	✓ (<50Ω)
Diode Test	✓ (<0-2V)
Auto Range	✓
TRMS	✓

**GENERAL SPECIFICATIONS**

<b>DISPLAY</b>	
Type	3.5-inch color LCD display
Resolution	320 horizontal × 240 vertical pixels
Colour	65536 colors
Contrast	Adjustable
<b>POWER SUPPLY</b>	
Power Supply	100 - 240 VACRMS, 50/60 Hz, CAT II DC INPUT: 5VDC, 2A
Power Consumption	<5W
Battery	2200mAh*2 ( 3.7V, 18650 )
<b>ENVIRONMENT</b>	
Operating Temperature	Working temperature: 0° to 40°C
Storage Temperature	Storage temperature: -20°C to 60°C
Humidity	≤90%
Height	Operating: 3,000 meters; Non-operating: 15,000 meters
Cooling Method	Natural cooling
<b>MECHANICAL SPECIFICATIONS</b>	
Dimensions	198 mm (length) × 96mm (height) × 38 mm (width)
Weight	About 0.6 kg (main unit, without battery)
<b>CALIBRATION</b>	
Calibration Interval	Recommended calibration interval is one year



**ACCESSORIES:**

- USB Cable
- Passive Probes
- Crocodile Clip Cable
- Multimeter Test Leads
- Probe Correction Adjustment Knife
- User Manual
- Carrying Case

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