

ProMax PM150-PRO Handheld Mini Portable Digital Oscilloscope

ProMax PM150-PRO Handheld Mini Portable Digital Oscilloscope is a rugged solution for industrial & professional users to test and debug electric signals. It is a 1 channel oscilloscope that can display live waveforms, amplitude, peak to peak, frequency, pulse width, of analog and digital signals.

Compared to the basic PM150 model, the PM150-PRO offers inbuilt battery, better case design, multiple buttons for easy input, higher sampling and bandwidth.

The oscilloscope has a real-time sampling rate of up to 20MS/s and a 5MHz analog bandwidth. With a complete triggering function (single, standard, automatic), both the periodic analog signal and the aperiodic digital signal can be used. Large time resolution scanning mode can monitor slow voltage changes. Equipped with a high-efficiency button AUTO, the measured waveform can be displayed without complicated adjustments from the user.



Features

- The oscilloscope has up to 20MS/s real-time sampling rate and a 5MHz analog bandwidth.
- Equipped with a high-efficiency button AUTO, the measured waveform can be displayed without complicated adjustment.
- White and Dark Display Themes are available for user selection
- Built-in 1500mAh rechargeable lithium battery with USB Micro Connector for charging
- Extremely convenient and fast waveform storage function
- Built-in 16M storage space, the maximum storage of 500 waveform pictures
- Powerful waveform file manager supports thumbnail browsing, viewing, details view, flip, delete and other functions
- High measurement voltage range, 1X can measure 0~40V, 10X can measure 40~400V
- Up to 11 parameters measurement: VPP, Vmax, Vmin, Vavg, Vrms, Frequent, Duty+, Duty-, Time+, Time-, Time
- Pause function is available for Freezing current waveform
- Multiple triggering function (single, standard, automatic).
- Portable and handheld operation
- Battery Backup: 2 Hours on full charge.

Applications

- Product Development, Research Education, Engineering Debugging.
- Electronic DIY, Vehicle Maintenance, Appliance Repair
- Electronics Debugging

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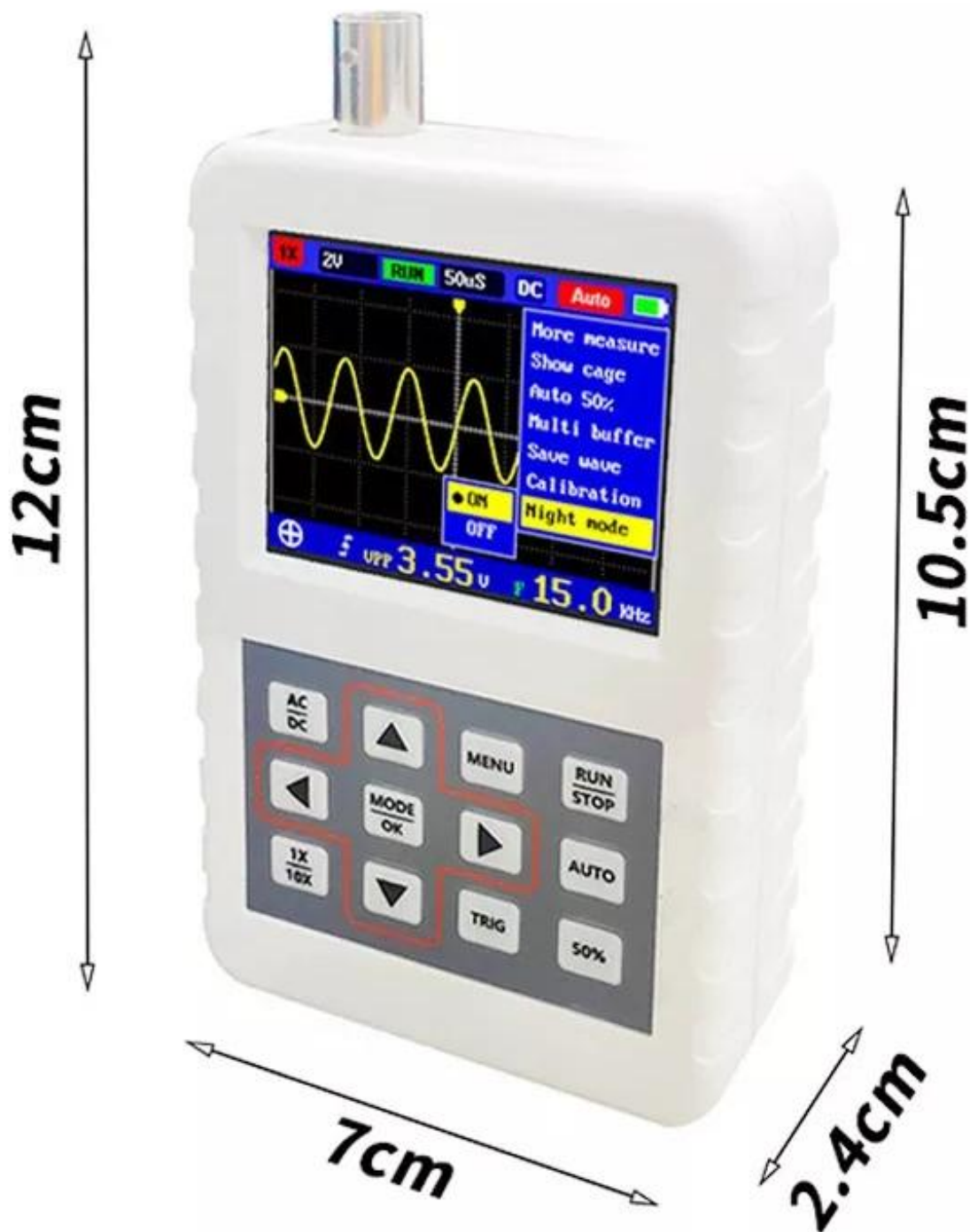
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1. Technical Specifications

Terms	Typical Value
No of Channels	1
Analog Band Width	5MHz
Maximum Real-Time Sampling Rate	20MS/s
Vertical Sensitivity	50mV/div ~ 200V/div
Horizontal Time Base Range	50S/div ~ 250nS/div
Maximum Input Voltage	40V (1X probe), 400V (10X probe)
Storage Space	40KB
Input Resistance	1M
ADC Precision	8bits
Coupling Mode	AC/DC
Trigger Mode	Single, normal, automatic
Trigger Edge	Ascending/descending edge
External Trigger Voltage	0 – 40 V
Display	2.4 inch @ 320 * 240
Power Supply	3.7V, 1500mAh lithium battery
Oscilloscope Bandwidth	80Mhz
Oscilloscope Max. Input Voltage	400V (DC+ACp-p)
Oscilloscope Input Resistance	10MΩ
Oscilloscope Attenuation Ratio	X1 X10 ±2%
Oscilloscope Length	1.2m / 3.94in
Body Material	ABS

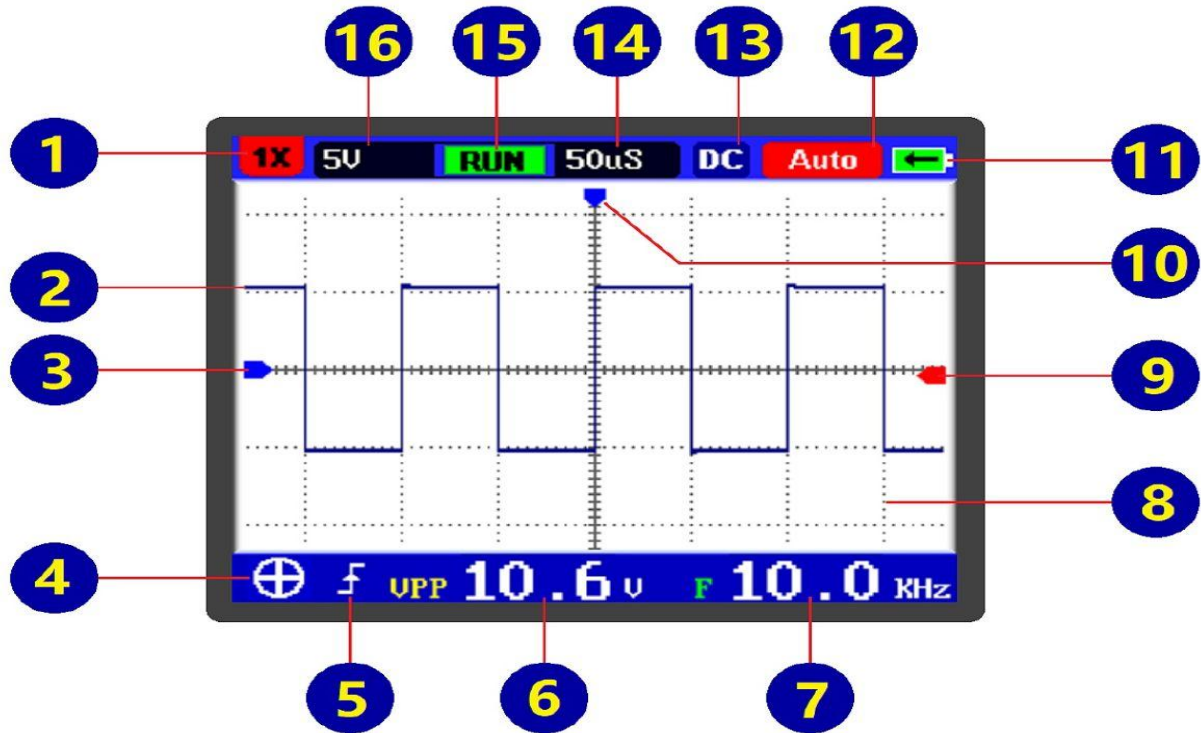
NOTE: For Measuring high voltage signal(> 40V), use a 10x probe (not included in the package) and move the switch on the handle of the probe to 10x switch position, otherwise device will get damaged.

2. Physical Dimensions



ProMax PM150 Handheld Digital Oscilloscope Mini PRO Dimensions

3. Digital Oscilloscope Overview



1 1X/10X mode indicator icon, this must be consistent with the 1X/10X switch settings on the probe handle, if the probe is 1X, then the oscilloscope will also be set to 1X, 1X input is the most able to measure the 40V voltage, 10X can measure 800V, do not enter the 40V voltage under the 1X probe, otherwise the oscilloscope will burn out.

2 measured signal waveform

3 baseline indicator icon, which indicates the position indicates the current position is 0V voltage.

4 direction keyboard mode icons

5 trigger edge indication icon

Peak and peak of **6** measured waveforms

7 the frequency of the measured waveform

8 background dashed grid can be set or closed in MENU.

9 trigger voltage indicator icon

10 horizontal position of waveform

11 residual power icon, green indicates residual power, contains arrows indicating that it is currently charging.

12 trigger mode indicator icon, Single means single trigger, Normal means normal trigger, Auto means auto trigger.

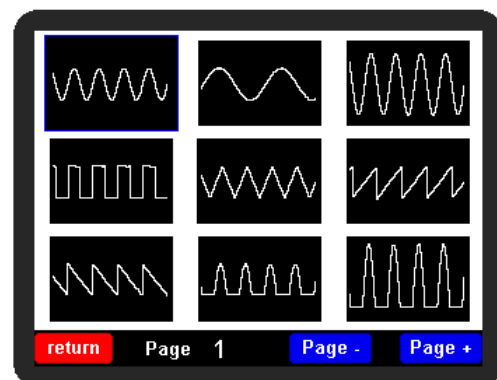
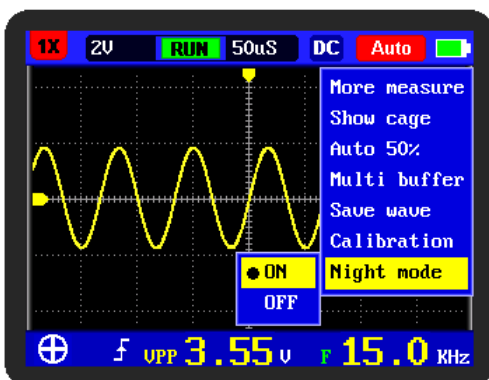
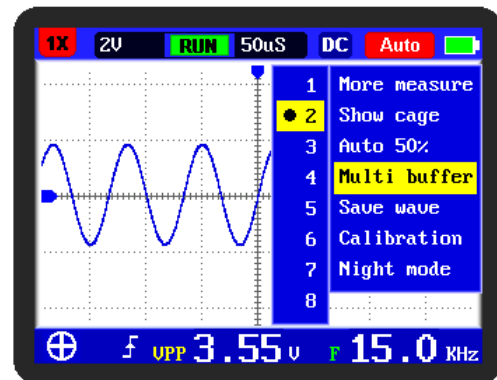
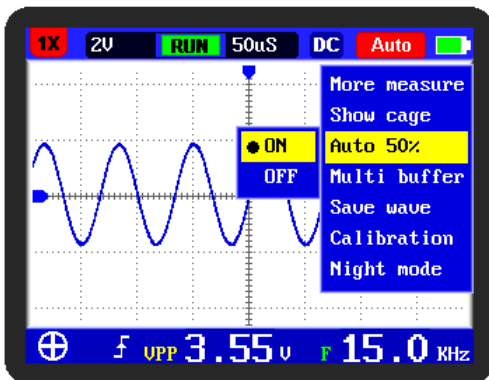
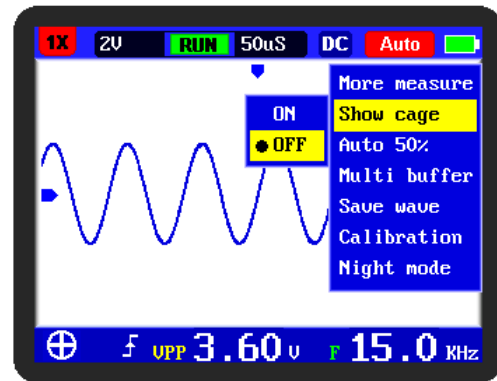
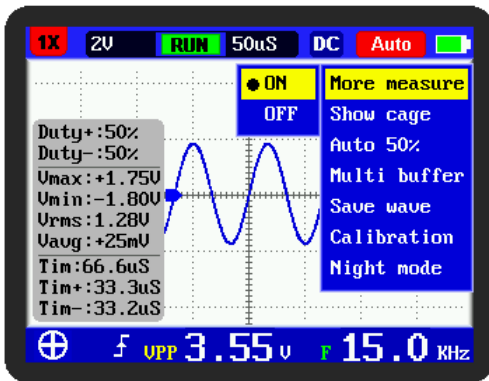
13 input coupling mode indicator, AC means AC coupling, DC means D coupling.

14 horizontal time base, which represents the length of time in a horizontal direction.

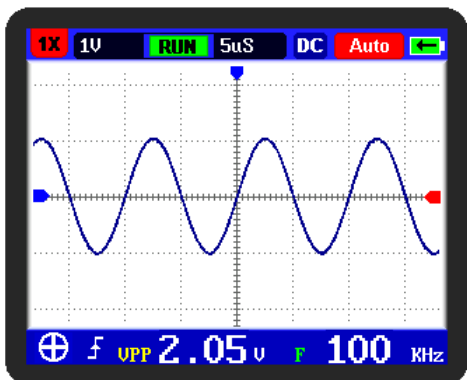
15 run the pause indicator icon, RUN means running, STOP indicates a pause.

16 vertical sensitivity, representing the voltage represented by a large gr in the vertical direction.

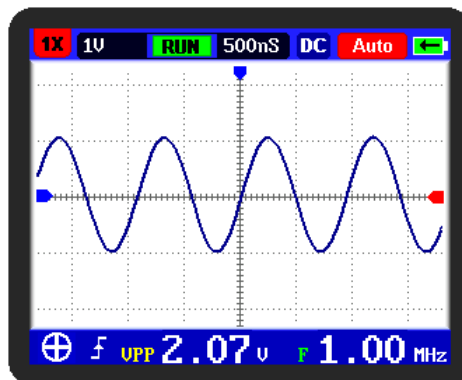
4. Display Screenshot



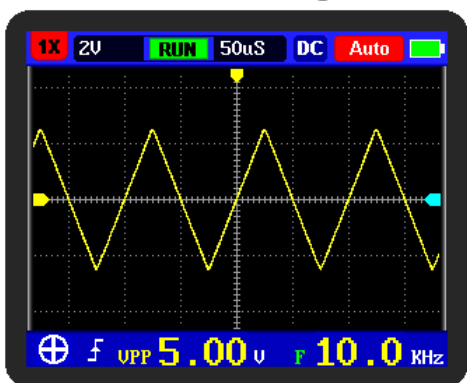
Test 2VPP 100KHz sin signal



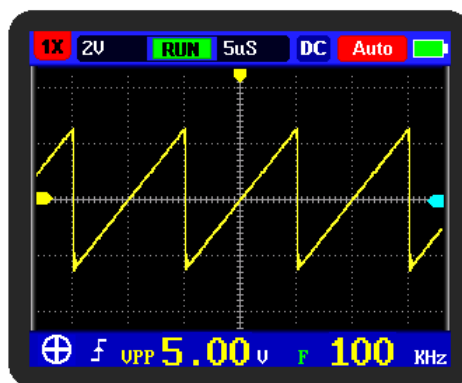
Test 2VPP 1MHz sin signal



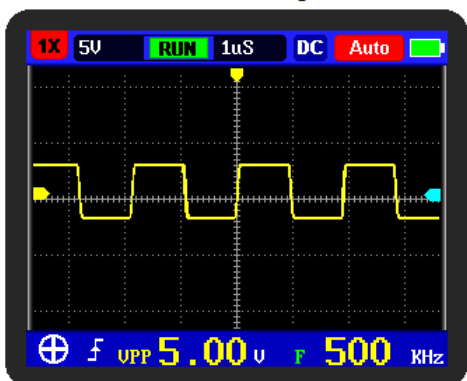
Test 5VPP 10KHz Triangular wave



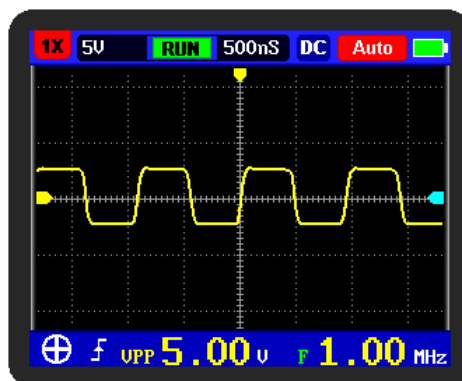
Test 5VPP 100KHz Sawtooth wave



Test 5VPP 500KHz square wave



Test 5VPP 1MHz square wave



5. Accessories

- **10X Probe** - Probe can switch between 1x and 10x gain. Useful for measure voltage >40V



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