GPS LTD.

GPS-800X / 1000X

Handheld Oscilloscope Series

Benchtop Performance, In Your Hand.

A range of handheld oscilloscopes built on Super-Phosphor (SPO) technology, integrating oscilloscope, serial trigger and decoder, FFT analysis, data logger and true-RMS multimeter functions into one portable instrument.

Vertical input spans 2 mV/div to 100 V/div (5 mV/div on the 1000X series), with a maximum offset range up to 400 V. The digital trigger system delivers high sensitivity and low jitter at up to 400,000 frames per second, with 256-level intensity grading and colour temperature display for fast fault identification.

The GPS-1000X series adds full isolation between both oscilloscope channels, the multimeter channel, the power adapter and the USB port — suited to floating signal measurement where accidental short-circuits are a risk. IP51 rated for dust and water resistance.

KEY FEATURES

- Scope, 6000-count true-RMS multimeter, decoder, FFT and data logger in one
- 100 MHz or 200 MHz bandwidth models
- 1 GSa/s single channel · 500 MSa/s dual channel
- Record length up to 12 Mpts · sample logging up to 22 hours to external memory
- Isolation to CAT III 600 Vrms / CAT II 1000 Vrms (1000X series)
- Battery operation 5.5 hours (800X) · 4 hours (1000X)

IDEAL FOR

- Outdoor work such as wind power measurement
- Emerging energy equipment testing
- Automotive electronics and EV measurement
- Electrical system debugging
- Field service and floating measurement

TECHNICAL SPECIFICATIONS

GPS-800X / 1000X Series Handheld Oscilloscope	
Bandwidth	100 MHz (GPS-810X / GPS-1102X) · 200 MHz (GPS-820X / GPS-1202X)
Channels	2 analogue oscilloscope channels · 1 multimeter channel
Vertical System	8-bit resolution · 2 mV/div to 100 V/div (800X) · 5 mV/div to 100 V/div (1000X) · maximum offset ±400 V · rise time typically 1.7 ns (820X), 2.0 ns (1202X), 3.5 ns (810X / 1102X)
Input	1 MΩ ±2% in parallel with 14 pF ±2 pF · DC, AC, GND coupling · channel-to-channel isolation >40 dB
Sample Rate & Timebase	1 GSa/s single channel · 500 MSa/s per channel with both enabled (shared ADC) · timebase 1 ns/div to 100 s/div, ±25 ppm
Memory Depth	12 Mpts/CH (single channel) · 6 Mpts/CH (dual channel)
Waveform Capture Rate	100,000 wfm/s (normal mode) · 400,000 wfm/s (sequence mode)
Trigger Types	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video
Serial Trigger & Decode	I^2C, SPI, UART, CAN, LIN
Measurement & Math	38 automatic parameters · 1 Mpts FFT with peaks and markers · history 80,000 frames · sequence up to 80,000 segments
Multimeter	6000 counts, true-RMS · DC/AC voltage and current · resistance, capacitance, diode, continuity
Data Logger	Sample logger 1 Sa/s to 25 kSa/s, up to 22 hours to external memory · measurement logger 0.1 s to 10 min interval, 4 items
Standard I/O	USB Host, USB Device
Display	5.6" TFT-LCD (640×480)
Max Input Voltage (Scope)	800X: CAT II 300 Vrms signal to earth, CAT II 30 Vrms BNC ground to earth · 1000X: CAT III 600 Vrms / CAT II 1000 Vrms signal to earth
Max Input Voltage (Meter)	800X: CAT III 300 Vrms, CAT II 600 Vrms · 1000X: CAT III 600 Vrms, CAT II 1000 Vrms
Battery	6900 mAh · 5.5 hours operation (800X) · 4 hours (1000X) · 4 hour charge with the unit switched off
Probe Supplied	PP510 (810X) · PP215 (820X) · PB925 (1102X / 1202X)

WHAT'S IN THE BOX

- GPS-800X / 1000X main unit
- Passive probes (2) · multimeter test leads (2)
- USB cable · power adaptor · quick start · certificate
- Battery 6900 mAh · carrying bag
- Current measurement adaptors (600 mA and 10 A)

IP RATING · IP51 dust and water resistance certified
POWER · Rechargeable 6900 mAh battery · mains power adaptor supplied

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-810X	2 channel, 5.6" TFT LCD, 100 MHz Handheld Oscilloscope	**180810**
GPS-820X	2 channel, 5.6" TFT LCD, 200 MHz Handheld Oscilloscope	**180820**
GPS-1102X	2 channel, 5.6" TFT LCD, 100 MHz Handheld Oscilloscope, fully isolated	**180860**
GPS-1202X	2 channel, 5.6" TFT LCD, 200 MHz Handheld Oscilloscope, fully isolated	**180890**

The 1000X series adds full channel-to-channel isolation and higher CAT ratings. Please contact us for pricing and availability.

MASS
1.75 kg (main unit) · 3.5 kg (with packaging)

DIMENSIONS
276 × 168 × 68 mm (l × w × d) approx.

OPERATING
0°C to 40°C, ≤85% RH · storage −20°C to 60°C

ALTITUDE
2000 m operating · 5000 m non-operating

WARRANTY
1 year (subject to product registration)

CERTIFICATION
EMC: IEC 61326-1 · Safety: UL 61010-1, UL 61010-2-030, -2-033