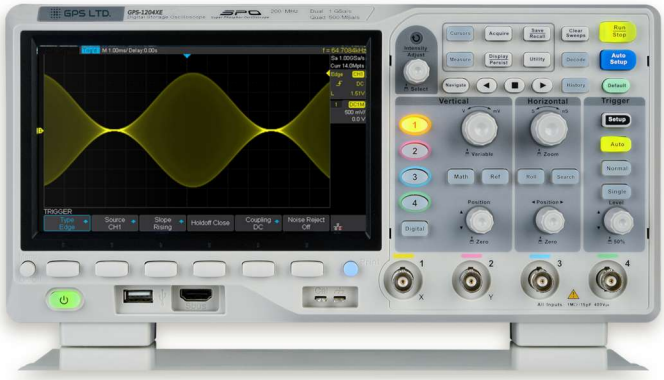
GPS-1000XE

Super-Phosphor Oscilloscope Series



Built to Scale With You.

The GPS-1000XE series brings serial decoding and triggering to a streamlined, affordable Super-Phosphor oscilloscope, available in 2 or 4 channels with 100 or 200 MHz bandwidth. Real-time sampling up to 1 GSa/s and true measurement up to 14 Mpts give you the headroom to work on complex signals without compromise.

A 1 Mpts FFT with a dedicated math co-processor delivers high-resolution spectral analysis, while History Waveforms mode and segmented Sequence acquisition extend your view of intermittent events. 256-level intensity grading and colour temperature display reveal signal density other scopes in this class miss.

4-channel models add an optional 16-channel digital input, USB AWG module, and WiFi adapter for a genuine mixed-signal upgrade path. Supplied with a full accessory set, the GPS-1000XE series suits automotive, aerospace, military, and utility applications.

KEY FEATURES

- Serial bus decoding standard (I2C, SPI, UART/RS232, CAN, LIN)
- 2 or 4 channels, 100 or 200 MHz bandwidth options
- Real-time sampling rate up to 1 GSa/s
- True measurement up to 14 Mpts memory depth
- 1 Mpts FFT with dedicated math co-processor

IDEAL FOR

- Automotive
- Aerospace
- Drivers and electrical machines
- Military
- Utilities: electrical, water and gas

TECHNICAL SPECIFICATIONS

GPS-1000XE Series Super-Phosphor Oscilloscope	
Bandwidth	100 MHz or 200 MHz (–3 dB) depending on model
Channels	4 (four-channel series) · 2+EXT (two-channel series) · DC, AC, GND coupling
Sample Rate	1 GSa/s with a single channel per ADC pair · 500 MSa/s with both channels of a pair active
Memory Depth	14 Mpts/CH interleaved · 7 Mpts/CH non-interleaved
Waveform Capture Rate	100,000 wfms/s (normal mode) · 400,000 wfms/s (sequence mode)
Acquisition Modes	Normal, peak detect (2 ns four-channel, 4 ns two-channel), average (4–1024), ERES to 3 bits · sin(x)/x or linear
Vertical Resolution	8-bit · 500 µV/div – 10 V/div (1-2-5 sequence, 1× probe)
Offset Range	±2 V (500 µV – 118 mV/div) · ±20 V (120 mV – 1.18 V/div) · ±200 V (1.2 – 10 V/div)
DC Gain Accuracy	≤±3.0% (5 mV/div – 10 V/div) · ≤±4.0% (≤2 mV/div) · SFDR ≥35 dB
Rise Time	1.8 ns typical at 200 MHz · 3.5 ns typical at 100 MHz · overshoot <10%
Input	1 MΩ ±2% || 17 pF four-channel or 16 pF two-channel, ±3 pF · max. ≤400 Vpk · bandwidth limit 20 MHz
Time Base	1.0 ns/div – 100 s/div · ±25 ppm accuracy · channel skew <100 ps
Trigger Types	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video (HDTV)
Trigger System	Auto, Normal, Single · hold-off 80 ns – 1.5 s · jitter <100 ps · DC, AC, LF reject, HF reject, noise reject
Serial Trigger & Decode	I²C, SPI, UART/RS232, CAN, LIN · triggering and decoding both standard · 2 decoders
Sequence & History	Up to 80,000 segments · history playback of up to 80,000 frames
Measurements	38 automatic parameters with statistics, gating, zoom and reference · all sampled points to 14 Mpts
Math	FFT up to 1 Mpts, peaks and markers on four-channel · +, –, ×, ÷, d/dt, ∫dt, √
Pass / Fail	Hardware-based, up to 40,000 decisions/s · 3.3 V TTL output
Display	7" TFT-LCD (800×480), 24-bit colour · 500:1 contrast · 300 nits · 256-level intensity grading
Standard I/O	USB Host (2× four-channel, 1× two-channel), USB Device (USB-TMC), LAN, Pass/Fail, Trigger Out
Remote Control	SCPI · VXI-11, Telnet (5024) and socket (5025) over LAN · web browser control on four-channel
Four-channel only	Bode plot to 120 MHz with vari-level PSRR · search and navigate · labels, counter, data loggers and NTP
Options (four-channel)	16 digital channels · 25 MHz USB AWG module (1 ch, 125 MSa/s, 16 kpts) · USB WiFi adapter

WHAT'S IN THE BOX

- GPS-1000XE main unit
- Passive probes (4× PP510 at 100 MHz, 4×/2× PP215 at 200 MHz)
- USB cable
- AC power cord
- Quick start guide & certificate

STANDARDS · EMC: EN 61326-1 · Safety: EN 61010-1
POWER · 100–240 VAC, CAT II, Auto selection, 50 W max

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-1102XE	2 channel, 7" TFT LCD, 100 MHz Super-Phosphor Oscilloscope with Serial Decoding	**201353**
GPS-1202XE	2 channel, 7" TFT LCD, 200 MHz Super-Phosphor Oscilloscope with Serial Decoding	**201600**
GPS-1104XE	4 channel, 7" TFT LCD, 100 MHz Super-Phosphor Oscilloscope with Serial Decoding	**201433**
GPS-1204XE	4 channel, 7" TFT LCD, 200 MHz Super-Phosphor Oscilloscope with Serial Decoding	**201624**

Choose channel count and bandwidth above. Optional 16-channel digital input, USB AWG module, and WiFi adapter available on 4-channel models – please enquire.

MASS
2.6 kg net four-channel · 2.5 kg net two-channel

DIMENSIONS
312 × 132.6 × 151 mm four-channel · 312 × 134 × 150 mm two-channel

OPERATING
0°C to 40°C, ≤85% RH, ≤3000m altitude

POWER SUPPLY
100–240 Vrms 50/60 Hz · 50 W max four-channel · 25 W max two-channel

WARRANTY
1 year (subject to product registration)

CERTIFICATION
EMC: IEC 61326-1 / EN 55011 Class A · Safety: EN 61010-1, UL 61010-1