



GPS-2100 Series

Function / Arbitrary Waveform Generators



Every Signal. Perfectly Defined.

The GPS-2100 series uses precision DDS technology to deliver stable, high-purity signals for laboratory, educational and production test work. A 3.5" 480 × 320 TFT display with English or Chinese menus, 200 MSa/s sampling rate and 13-bit vertical resolution give accurate waveform generation up to 60 MHz.

Dual channels run independently or synchronised, with flexible main and auxiliary assignment. Built-in AM, FM, PM, ASK, FSK and PSK modulation, plus sweep and burst functions, cover a wide range of signal simulation. Five standard waveforms, 32 built-in arbitrary waveforms and 50 user-defined locations are provided, each 8192 points long.

RS-232 and USB interfaces allow waveform editing and PC control, and an integrated 100 MHz frequency counter with 32-bit event counting adds measurement capability. Available in 15, 25, 40 and 60 MHz models.

KEY FEATURES

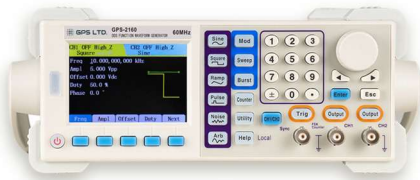
- Dual-channel DDS, up to 60 MHz output bandwidth
- 200 MSa/s sampling, 13-bit resolution, 8192-point waveform length
- 5 standard, 32 built-in arbitrary and 50 user-defined waveforms
- AM, FM, PM, ASK, FSK, PSK modulation (internal or external)
- 100 MHz frequency counter and 32-bit event counter

IDEAL FOR

- Laboratory and R&D
- Education and training
- Production and functional test
- Component and circuit characterisation
- Service and repair benches

TECHNICAL SPECIFICATIONS

GPS-2100 Series DDS Function / Arbitrary Waveform Generator	
Sine Frequency Range	1 μ Hz to 15 / 25 / 40 / 60 MHz by model · ± 5 ppm accuracy, ± 1 ppm per 3 hours · 1 μ Hz resolution
Square Frequency Range	1 μ Hz to 15 MHz (all models)
Triangle / Ramp Frequency Range	1 μ Hz to 15 MHz (all models)
Pulse / Arbitrary Range	Pulse 100 μ Hz to 6 MHz, minimum width 20 ns · arbitrary 1 μ Hz to 6 MHz
Channels	2 · independent or synchronised, with switchable main/auxiliary roles
Sampling Rate	200 MSa/s
Vertical Resolution	13-bit · 8192-point waveform length
Waveforms	Sine, square, triangle / ramp, pulse, noise and DC · 32 built-in arbitrary · 50 user-defined
Amplitude Range	2 mVpp to 20 Vpp (<10 MHz) · to 10 Vpp (10–30 MHz) · to 5 Vpp (≥ 30 MHz)
DC Offset Range	± 10 Vpk (ac + dc) · ± 0.25 Vpk for outputs ≤ 0.1 V
Output Impedance	50 $\Omega \pm 10\%$ · load selectable 50 Ω or High-Z per channel
Phase Adjustment	0 to 359.9° (0.1° resolution)
Modulation	AM / FM / PM / ASK / FSK / PSK, internal or external · modulating source sine, square, triangle, up-ramp or down-ramp at 2 mHz to 20 kHz · keying 2 mHz to 1 MHz
Square Wave	Rise / fall <20 ns · overshoot <5% · duty cycle 1–99% (<100 kHz), 20–80% (to 5 MHz), 40–60% above
Signal Purity	Harmonics ≥ 45 dBc (<1 MHz), ≥ 40 dBc (1–20 MHz) · THD <0.8% (20 Hz–20 kHz)
Sweep, Burst & Counter	Sweep linear or logarithmic, 1 ms to 500 s · burst 1 to 65,535 cycles, infinite or gated · counter 1 Hz to 100 MHz, gate 0.01 s to 10 s



WHAT'S IN THE BOX

- GPS-2100 series main unit
- Three-wire power cable
- BNC coaxial cable
- CD-ROM with arbitrary waveform editing software
- Optional: BNC alligator lead, RS-232 / USB cable, cabinet kit

INTERFACES · RS-232, USB Device (115200 baud) · optional USB Host for flash drive
POWER · 220 V $\pm 10\%$, 45–65 Hz (110 V $\pm 10\%$ optional) · <15 W

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-2115	2 channel DDS function / arbitrary waveform generator, 15 MHz, 3.5" 480 × 320 TFT	202115
GPS-2125	2 channel DDS function / arbitrary waveform generator, 25 MHz, 3.5" 480 × 320 TFT	202125
GPS-2140	2 channel DDS function / arbitrary waveform generator, 40 MHz, 3.5" 480 × 320 TFT	202140
GPS-2160	2 channel DDS function / arbitrary waveform generator, 60 MHz, 3.5" 480 × 320 TFT	202160

Models differ only in maximum sine frequency. Square and triangle reach 15 MHz, pulse and arbitrary 6 MHz, on all models. Please contact us for pricing and lead times.

MASS

3.5 kg (main unit) · 3.9 kg (with packaging)

OPERATING

10°C to 40°C · storage –10°C to 60°C

WARRANTY

1 year (subject to product registration)

DIMENSIONS

250 × 90 × 300 mm (w × h × d) approx.

HUMIDITY

$\leq 90\%$ RH ($\leq 35^\circ\text{C}$) · $\leq 60\%$ RH (35–40°C)

CERTIFICATION

Complies with general safety and EMC requirements