



GPS

# 21100 series

Designed to enhance waveform generation; built for lasting power and durability.

The testing of physical systems and transducers often needs stable and reliable signals. The GPS-211XX series is our most powerful function/arbitrary waveform generator featuring a maximum high output frequency of 160MHz and is a dual-channel device offering wave length of 16kpts (CH 1) and 512kpts (CH 2). As with other GPS function generators, this model also gains an advantage over other similar instruments with the integration of EasyPulse<sup>®</sup> technology which provides an abundant of advantages to the user including low jitter and more flexible pulse width adjustment, With an easy-to-read color display and intuitive user interface with numeric keypad, these instruments offer plenty of features including linear/logarithmic sweep, built-in counter, extensive modulation and triggering capabilities, a continuously variable DC offset, and a high performance 14-bit, 500 MSa/s arbitrary waveform generator.

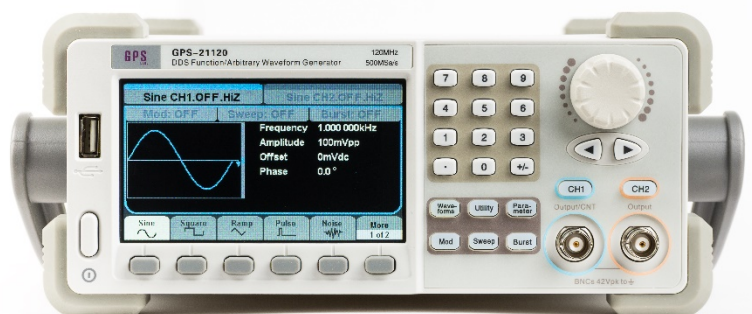


Figure 1 Model shown GPS-21120

## Key Features

- 14-bit, 500 MSa/s, 512k point arbitrary waveform generator
- Two independent channels with one button synchronization
- 2ppm high frequency stability, -116dBc/Hz low phase noise
- Rich modulation features
- High resolution 4.3-inch LCD color display
- High precision frequency counter enables measuring ranges 100MHz-200MHz (single channel)
- 10 MHz reference clock input and output

## Ideal for

- Research and development
- Educational institutions
- Electronic and electrical equipment repair businesses
- Stimulus/response testing, frequency response characterization, and in-circuit signal injection

## Technical Specifications

Model	GPS-21120	GPS-21160
Maximum output frequency	120 MHz	160 MHz
Output channels	2	
Sampling rate	500 MSa/s	
Wave length	CH1: 16 Kpts CH2: 512 Kpts or 16 Kpts	
Frequency resolution	1 $\mu$ Hz	
Vertical resolution	14 bits	
Waveform	Sine, Square, Ramp, Pulse, Gaussian white noise, DC. Plus 36 types of built-in predefined arbitrary waveforms	
Sine wave	1 $\mu$ Hz ~ 120 MHz	1 $\mu$ Hz ~ 160 MHz
Square wave	1 $\mu$ Hz ~ 40 MHz	1 $\mu$ Hz ~ 50 MHz
Pulse	1 $\mu$ Hz ~ 30 MHz	1 $\mu$ Hz ~ 40 MHz
Ramp/Triangular	1 $\mu$ Hz ~ 3 MHz	1 $\mu$ Hz ~ 4 MHz
Gaussian white noise	100 MHz (-3 dB)	
Arbitrary waveform	1 $\mu$ Hz ~ 30 MHz	1 $\mu$ Hz ~ 40 MHz
Modulation function	AM, FM, PM, DSB-AM, FSK, ASK, PWM, Sweep, Burst	
Standard configuration	USB device port (USBTMC-compliant) and front panel USB host port GPIB connectivity with optional USB-to-GPIB adapter	
Amplitude (high impedance)	1 mVpp - 10 Vpp, $\leq$ 40 MHz, 1 mVpp - 5 Vpp, $\leq$ 100 MHz, 1 mVpp - 1.5 Vpp, $\leq$ 160 MHz	

### Standard Accessories

EasyWave© software  
 USB cable  
 220V AC EU power cord  
 Quick-start guide  
 Calibration certificate

### Input Voltage

100 - 240 VAC  $\pm$  10%, 50 / 60 Hz  $\pm$  5%  
 100 - 120 VAC  $\pm$  10%, 45 - 440 H

### Power

30 W max.

### EMC

EMC Directive 2004/108/EC,  
 EN61326:2006, EN61000-3-2:2006+A2:2009, EN61000-3-3:200

### Safety

low voltage directive 2006/95/EC,  
 EN61010-1:2001, EN61010-031:2002+A1:2008

## General Specifications

Part Numbers / Optional Accessories		
Code	Item	Part Number
GPS-21120	120 MHz, dual channel, function/arbitrary waveform generator	202210
GPS-21160	160 MHz, dual channel, function/arbitrary waveform generator	202601

### Dimensions

261 x 105 x 344mm / 10 x 4 x 13.5" (w x d x h) approx.

### Mass

2.8kg/6.1lbs approx.

### Operating:

0°C ~ 40°C  
 Below +35°C:  $\leq$ 90% relative humidity  
 +35°C ~ +40°C:  $\leq$ 60% relative humidity  
 $\leq$ 3000m

### Services

1-year warranty (subject to product registration with GPS Ltd)

Visit [www.gpslimited.com/register-product](http://www.gpslimited.com/register-product)  
 Service and calibration available.

Please contact for more information

[www.gpslimited.com/21100series](http://www.gpslimited.com/21100series)  
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