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TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

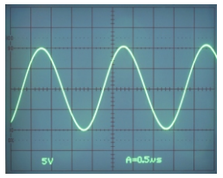
Expert team | Trust guarantee | 100% satisfaction

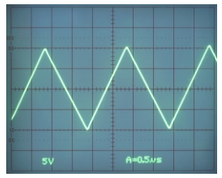
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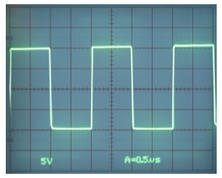
Find the *Instek SFG-1003* at our website: *Click HERE*

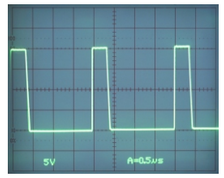
20MHz/10MHz/7MHz/4MHz DDS FUNCTION GENERATOR

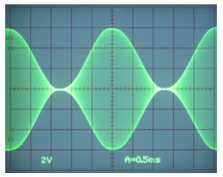
A. OUTPUT WAVEFORM

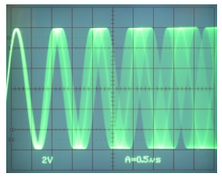

Sine Waveform

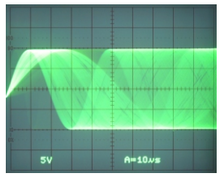

Triangle Waveform


Square Waveform


Pulse Waveform


AM Modulated Waveform

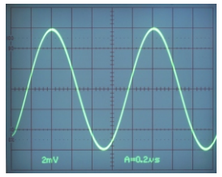

FM Modulated Waveform

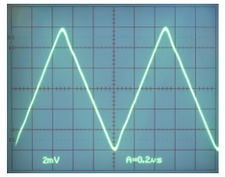

Sweep Waveform

SFG-2000/2100 Series provides Sine, Triangle and Square waveforms with DC offset and variable duty cycle at±20ppm frequency stability and accuracy. The low drift rate and -55dBc low distortion of the sine wave output significantly extend the application range of the product to various market sectors.

The TTL/CMOS output is also available to fulfill various application requirements in the market. Besides the basic functions, SFG-2100 Series further provides additional functions of AM/FM modulation, sweep mode, and Built-In Frequency Counter.

B. DDS FG VS. CONVENTIONAL FG


GW Instek SFG DDS Sine Wave & Triangle Wave


Conventional Function Generator Sine Wave & Triangle Wave

The signal of SFG-2000/2100 is generated by continuously delivering a series of sampling values from a sine waveform table (stored in RAM) to DAC (Digital to Analog Converter) for waveform construction. With low pass filter circuit to filter out the harmonics of DAC output and smooth the signal, the SFG-2000/2100 is able to provide a stable output with very low waveform distortion. This is very different from the way a conventional FG generates a signal. As a conventional FG needs to obtain its signal by switching current sources to go positive and negative directions alternately all the time, the "Ringing" distortion occurs at the peak of the signal waveform when the switching is activated. This distortion is comparatively serious when the output amplitude is low. For SFG-2000/2100 DDS FG, however, the waveform distortion remains low even when the output amplitude is at only 2mVpp.

3 MHz DDS FUNCTION GENERATOR



NEW

SFG-1003/1013 (3MHz)

SFG-1000 Series, an economic function generator with high accuracy and high stability output, is designed based on the DDS (Direct Digital Synthesized) technology embedded in a large scale FPGA. The frequency range of 3MHz and the output waveform selection of Sine, Square, Triangle and TTL of SFG-1000 Series adequately provide the fundamental features to ensure high confidence for the test results. The DDS technology at an affordable price gives a high value solution to the users who need a signal source for accurate but unsophisticated measurement applications.

FEATURES

* DDS Technology and FPGA Design
* Frequency Range : 0. 1Hz ~ 3MHz
* High Frequency Accuracy : ±20ppm
* High Frequency Stability : ±20ppm
* Max. Frequency Resolution : 100 mHz
* Low Distortion Sine Wave : -55dBc, 0. 1Hz~200 kHz
* Voltage Display (Only SFG-1013)

SELECTION GUIDE

MAIN FUNCTION \ MODEL	SFG-1003	SFG-1013
Frequency	3 MHz	3 MHz
Offset	✓	✓
TTL Output	✓	✓
-40dB Attenuation	✓	✓
Voltage display	—	✓

SPECIFICATIONS

MAIN	
Output Function	Sine, Square, Triangle, TTL
Frequency Range(For Sine, Square)	0.1Hz ~ 3MHz
Frequency Range(For Triangle)	0.1Hz ~ 1MHz
Resolution	0.1Hz maximum
Stability	±20ppm
Accuracy	±20ppm
Aging	±5ppm/year
Amplitude Range	10Vp-p (into 50Ω load)
Amplitude Accuracy	±20% at maximum position (only SFG-1013)
Impedance	50Ω±10%
Attenuator	-40dB±1dBx1
DC Offset	＜-5V ~ ＞5V (into 50Ω load)
Duty Control Range	25% ~ 75% below 1MHz (for square wave only)
Display	6-digit LED display
Output Control	ON/OFF selector
SINE WAVE	
Harmonics Distortion	From Amplitude control at maximum position without any attenuation to its 1/10 of any combination setting, TTL OFF ≧-55dBc, 0.1Hz ~ 200kHz ≧-40dBc, 0.2MHz ~ 2MHz ≧-35dBc, 2MHz ~ 3MHz
Flatness (at maximum amplitude relative to 1kHz)	＜±0.3dB, 0.1Hz ~ 1MHz ＜±0.5dB, 1MHz ~ 2MHz ＜± 1dB, 2MHz ~ 3MHz
TRIANGLE WAVE	
Linear	≧98%, 0.1Hz ~ 100kHz ; ≧95%, 100kHz ~ 1MHz
SQUARE WAVE	
Symmetry	5% of period+4ns, 0.1Hz ~ 100kHz
Rise or Fall Time	≦100ns at maximum output. (into 50Ω load)
TTL OUTPUT	
Level	≧ 3Vp-p
Fan Out	20 TTL load
Rise or Fall Time	≦25ns
GENERAL	
Operation Environment	Indoor use, altitude up ~ 2000m Ambient Temperature 0℃ ~ 40℃ Relative Humidity: Up to 80% at 0℃ ~ 40℃ Up to 70% at 35℃ ~ 40℃ Installation category II Pollution Degree 2
POWER SOURCE	
	AC 240V/220V/110V± 10%, 50/60Hz
STORAGE CONDITION	
Temperature	-10℃ ~ 70℃
Humidity	70% (Maximum).
DIMENSION & WEIGHT	
251(W) x 91(H) x 291(D) mm, Approx. 2.1kg	

ORDERING INFORMATION

SFG-1003 3 MHz DDS Function Generator
SFG-1013 3 MHz DDS Function Generator with Voltage Display

ACCESSORIES :
User manual x1, Power cord, GTL-101 x1

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

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Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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We're here to make your life easier. How can we help you today?

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