

Programmable Function Generator

GW INSTEK

GFG-3015



- 0.01Hz – 15MHz.
- Built in 150MHz Counter.
- Int/Ext AM/FM, Line/LOG Sweep.
- RS-232 Interface.
- Dual Display.

		GFG-3015
Main	Output Functions Frequency Range Frequency Resolution Frequency Accuracy Output Impedance Amplitude Range Amplitude Accuracy Amplitude Unit DC Offset DC Offset Accuracy Duty Control Duty Accuracy Display	Sine, Square, Triangle, Ramp, Pulse, AM, FM, Sweep, Trigger, Gate or Burst 10mHz ~ 15MHz in 8 Frequency Ranges (Auto Switching) 15MHz ~ 150kHz (100Hz) ; 1.5MHz ~ 15kHz (10Hz) 150kHz ~ 1.5kHz (1Hz) ; 15kHz ~ 150Hz (0.1Hz) 1.5kHz ~ 15Hz (10mHz) ; 150Hz ~ 1.5Hz (10mHz) 15Hz ~ 0.15Hz (10mHz) ; 1.5Hz ~ 0.01Hz (10mHz) 0.02% ± 5 Count 50Ω ± 10% 0.01V ~ 10V (Into 50Ω); 4 Amplitude Ranges, Vac Peak+Vdc = 5V Resolution : 10mV (0.01V ~ 10V) ≤ 3% ± 5 Counts (10Hz ~ 1MHz); ≤ 10% ± 5 Count (1MHz~15MHz) Vpp, Vrms, dBm -5V ~ 5V (into 50Ω) ; Resolution 10mV ≤ 3% ± 3 Counts 20% ~ 80% up to 1MHz ; Resolution 1% ≤ 1% at 1MHz at 50% Duty Dual Display: Frequency 6 Digits & Amplitude 4 Digits
Sine Wave	Distortion	≤ 0.5% (-46dBc) THD from 10Hz ~ 100kHz; ≤ -30dBc up to 15MHz; (over 1Vpp ~ 10Vpp)
Triangle Wave	Linearity Error	< 1% of Full Scale Output at 100Hz
Square Wave	Asymmetry Rise or Fall Time	± 1% of Period + 3nS < 18nS
Sync Output	Impedance Level	50Ω ± 10% > 1Vp-p Open Circuit
Modulation Characteristics	Types Waveforms Frequency Range Frequency Accuracy Frequency Resolution Symmetry Symmetry Accuracy Output Level Sine Wave Distortion	AM, FM, Sweep, Trigger (Int/Ext), Gate or Burst Sine, Square, Triangle, Ramp or Variable Symmetry Pulse 10mHz ~ 10kHz in 3 Frequency Ranges (Auto Switching) 10.0~0.1kHz (100Hz); 99~1Hz (1Hz); 0.99~0.01Hz (0.01Hz) 5% ± 1 Count 10% ~ 90%; Resolution : 1% ± 1 Count (≤ ± 1%) ≥ 1Vpp into 10kΩ Load ≤ 2% from 10Hz ~ 10kHz
Amplitude Modulation	Depth Modulation Frequency Rate Carrier -3dB Bandwidth External Sensitivity	0 ~ 100% 0.01Hz ~ 10kHz (INT) ; DC ~ 1MHz (EXT) < 100Hz ~ > 5MHz ≤ 10Vpp for 100% Modulation

		GFG-3015
Frequency Modulation	Deviation Modulation Frequency Rate External Sensitivity	0 ~ ± 15% 0.01Hz ~ 10kHz (INT) ; DC ~ 50kHz (EXT) ≤ 5Vpp for 15% Deviation
Sweep Characteristics	Sweep Range Width Rate Symmetry Control Mode Sweep Output	15MHz ~ 150kHz ; 1.5MHz ~ 15kHz; 150kHz ~ 1.5kHz; 15kHz ~ 150Hz; 1.5kHz ~ 15Hz; 150Hz ~ 1.5Hz; 15Hz ~ 0.15Hz; 1.5Hz ~ 0.01Hz > 100 : 1 (In Same Frequency Range) 0.01Hz ~ 10kHz 10% ~ 90%; Resolution: 1% Linear / Log Sweep 0 ≥ -5Vpp into 10kΩ
Trigger Characteristics	Start/Stop Phase Range Rate Frequency Range Ext. Trig. Frequency Range Gate or Burst	80° ~ 90° 0.1Hz ~ 10kHz 0.1Hz ~ 1MHz (Useful to 10MHz) DC ~ 1MHz, TTL Compatible Input Level Implemented by Trigger Setting
VCF (Voltage Controlled Frequency)	Range Input Linearity Input Impedance	100 : 1 (0 ~ 10V ± 1V) < 0.5% up to 1MHz, < 5% up to 10MHz 10kΩ
GCV Output (Generator Controlled Voltage)		To Set the Voltage Between 0.2V ~ 2V for Different Frequencies in the same Frequency Range
Frequency Counter	INT/EXT Range Accuracy Time Base Resolution Input Impedance Sensitivity	Switch Selector 5Hz ~ 150MHz EXT Time Base Accuracy ± 1 Count ± 20ppm (23°C ± 5°C) After 30 Minutes Warm Up 100nHz for 0.1Hz, 1Hz for 100MHz 1MΩ // 150pF ≤ 35mVrms (5 ~ 100MHz) ≤ 45mVrms (100MHz ~ 150MHz)
Memory	Save / Recall	10 Sets of Front Panel Setting Memories
General	Interface Power Source Standard Accessories Dimensions Weight	RS-232C AC 115V / 230V ± 15%, 50/60Hz Instruction Manual x 1, Power Cord x 1, GTL-101 x 2 290mm (W) x 142mm (H) x 460mm (D) 5kg

ORDERING INFORMATION

GFG-3015	15MHz Programmable Function Generator
----------	---------------------------------------



Tel: +44 (0)20 8868 1311 Fax: +44 (0)20 8866 6596
1-3 Kildare Close, Eastcote, Ruislip, Middlesex HA4 9UR