

Programmable Function Generator



GFG-3015

FEATURES :

- * Frequency Range 0.01Hz~15MHz
- * Maximum Frequency Resolution 10mHz
- * Frequency Accuracy 0.02%±5 Count
- * Dual Displays Indicate Frequency and Amplitude
- * Built-in 6 Digit Counter With INT/EXT Function up to 150MHz/High Resolution
- * Output Waveforms Sine, Square, Triangle, Ramp, Pulse, AM, FM, Sweep, Trigger and Gate or Burst
- * VCF for 100:1 EXT Frequency Control
- * INT/EXT AM/FM Modulation
- * GCV Output for Synchronization
- * Output Overload Protection
- * RS-232C Interface Standard
- * Variable DC Offset Control
- * SYNC Output
- * LIN/LOG Sweep Mode

SPECIFICATIONS

MAIN	Output Waveforms 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 range (auto switch) 15.0000MHz~1.5001MHz(100Hz);1.50000MHz~150.011CHz(10Hz);150.000kHz~15.001kHz(1Hz); 15.0000kHz~1.5001kHz(10mHz);1.50000kHz~150.01Hz(10mHz);15.00Hz~1.51Hz(10mHz); 1.50Hz~0.01Hz(10mHz) 0.02% ±5 count 50Ω ±10% 10.00V ~ 0.01V(into 50 Ω) 4 amplitude rang; Vac peak + Vdc = 5V Resolution : 10mV(10.00V ~ 0.01V) ≤3% ± 5count at 10Hz ~ 1MHz; ≤10% ± 5count at 1MHz ~ 15MHz Vpp, Vrms, dBm -5V ~ 5V (into 50Ω); resolution 10mV ≤3%± 3count at amplitude min. 80%: 20%:80% ~ 1MHz; resolution 1% ≤1% ~ 1MHz at 50% duty Dual display for frequency 6 digits and amplitude 4 digits
SINE WAVE	Distortion	≤ 0.5%(-46dBc) THE from 10Hz~ 100kHz; ≤ -30dBc~15MHz;(spec. applied form 1Vpp~10Vpp)
TRIANGLE WAVE	Linearity Error	<1% of full scale output at 100Hz
SQUARE WAVE	Asymmetry Rise or Fall Time	±1% of period + 3nS <18 nS
SYNC OUTPUT	Impedance Level	50 Ω±10% >1Vp-p open circuit
MODULATION CHARACTERISTICS	Types Waveform Rate Frequency Range Rate Frequency Accuracy Rate Frequency Resolution Symmetry Symmetry Accuracy Output Level Sine Wave Distortion	AM, FM, Sweep, Trigger(int/ext), Gate or Burst (implement by trigger type) Sine, Square, Triangle, Ramp or Variable Symmetry Pulse 10mHz~10kHz in 3 frequency range (auto switch) 5% ± 1 count 10.0kHz ~ 0.1kHz(100Hz); 99Hz ~ 1Hz(1Hz); 0.99Hz ~ 0.01Hz(0.01Hz) 90% : 10% : 90%; resolution : 1% ± 1 count(≤ ± 1%) ≥1Vpp into 10k Ω load ≤2% from 10Hz ~ 10kHz
AMPLITUDE MODULATION	Depth Modulation Frequency Rate Carries -3dB Bandwidth External Sensitivity	0 ~ 100% 0.01Hz ~ 10kHz(INT) ; DC ~ 1MHz(EXT) <100Hz to >5MHz ≤ 10Vpp for 100% modulation
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 90% 10% 90%; resolution:1% Linear /Log sweep 0 ≥ -5Vpp into 10k Ω
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 ~ 10MHz) DC ~ 1MHz, TTL compatible input level Implement by trigger setting
VCF	Range Input Linearity Input Impedance	100:1(0 ~ 10V ± 1V) <0.5% ~ 1MHz,<5% ~ 10MHz 10 k Ω
GVC OUTPUT		To set the voltage between 0.2V ~ 2V as per different frequency in 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 The maximum resolution is 100nHz for 0.1Hz and 1Hz for 100MHz 1MΩ// 150pF ≤35mVrms(5 ~ 100MHz); ≤45mVrms(100MHz~150MHz)
MEMORY	Sare/Recall	10 sets of front panel setting memories
INTERFACE	RS-232C	
POWER SOURCE		AC115V/230V ± 15%, 50/60Hz
ACCESSORIES		Power cord x 1, Instruction manual x 1, GTL-101 x 2
DIMENSIONS & WEIGHT		290(W) x 142(H) x 460(D)mm, Approx. 5kg