

15MHz PROGRAMMABLE FUNCTION GENERATOR



GFG-3015 (15MHz)



The GFG-3015 is a versatile and high precision function generator, providing stable and accurate signal at 15MHz frequency range. Powered by the Frequency Feedback technology, the GFG-3015 delivers the frequency accuracy as low as 0.02% and maximum resolution at 10mHz. 10 sets of front panel setup memory make it easier to output the specific signal as pre-defined. Other functions include AM/FM, Gate, Burst, Trigger, 5 sets of standard waveforms, 150MHz counter, VCF control, and dedicated channels for different outputs. The GFG-3015 provides exceptional values to users in the educational field as well as repair service, production testing, and development lab.



GFG-3015

Rear Panel



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, Pulse, AM, FM, Sweep, TTL, Trigger and Gate or Burst
- * INT/EXT AM/FM Modulation
- * LIN/LOG Sweep Mode
- * Variable DC Offset Control
- * VCF for 100:1 EXT Frequency Control
- * GCV Output for Synchronization
- * SYNC Output
- * Output Overload Protection
- * RS-232C Standard Interface

SPECIFICATIONS	
MAIN	
Output Waveforms	Sine, Square, Triangle, Ramp, Pulse, AM, FM, Sweep, Trigger, Gate or Burst
Frequency Range	10mHz~15MHz in 8 frequency range(auto switch)
Frequency Resolution	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)
Frequency Accuracy	0.02% ±5 count
Output Impedance	50Ω±10%
Amplitude Range	10.00V ~ 0.01V(into 50Ω) 4 amplitude range Vac peak + Vdc = 5V ; Resolution : 10mV(10.00V ~ 0.01V)
Amplitude Accuracy	±3% ±5count at 10Hz ~ 1MHz ; ≤10% ±5count at 1MHz ~ 15MHz
Amplitude Unit	Vpp , Vrms , dBm
DC Offset	-5V ~ 5V (into 50Ω); resolution 10mV
DC Offset Accuracy	±3%±3count at minimum amplitude
Duty Control	20% ~ 80% ~ 1MHz; resolution 1%
Duty Accuracy	±1% ~ 1MHz at 50% duty
Display	Dual display for frequency 6 digits and amplitude 4 digits
SINE WAVE	
Distortion	≤ 0.5%(-46dBc) for 10Hz ~ 100kHz; ≤-30dBc at 15MHz (for 1Vpp ~ 10Vpp)
TRIANGLE WAVE	
Linearity Error	<1% of full scale output at 100Hz
SQUARE WAVE	
Asymmetry	±1% of period + 3nS
Rise or Fall Time	<18nS
SYNC OUTPUT	
Impedance	50Ω±10%
Level	>1Vp-p open circuit
MODULATION CHARACTERISTICS	
Types	AM, FM, Sweep, Trigger(int/ext), Gate or Burst (implement by trigger type)
Waveform	Sine, Square, Triangle, Ramp or Variable Symmetry Pulse
Rate Frequency Range	10mHz~10kHz in 3 frequency range (auto switch)
Rate Frequency Accuracy	5% ±1 count
Rate Frequency Resolution	10.0kHz~0.1kHz(100Hz);99Hz~1Hz(1Hz); 0.99Hz ~ 0.01Hz(0.01Hz)
Symmetry	90% : 10% : 90%; resolution : 1%
Symmetry Accuracy	±1 count(≤ ±1%)
Output Level	≥1Vpp into 10kΩ load
Sine Wave Distortion	≤2% from 10Hz ~ 10kHz
AMPLITUDE MODULATION	
Depth	0 ~ 100%
Modulation Frequency Rate	0.01Hz ~ 10kHz(INT) ; DC ~ 1MHz(EXT)
Carries -3dB Bandwidth	<100Hz to >5MHz
External Sensitivity	≤ 10Vpp for 100% modulation
FREQUENCY MODULATION	
Deviation	0 ~ ±15%
Modulation Frequency Rate	0.01Hz ~ 10kHz(INT) ; DC ~ 50kHz(EXT)
External Sensitivity	≤ 5Vpp for 15% deviation
SWEEP CHARACTERISTICS	
Sweep Range	15MHz ~ 150kHz; 1.5MHz ~ 15kHz; 150kHz ~ 1.5kHz; 15kHz ~ 150Hz; 1.5kHz ~ 15Hz; 150Hz ~ 1.5Hz; 15Hz ~ 0.15Hz; 1.5Hz ~ 0.01Hz
Width	>100:1 (in the same frequency range)
Rate	0.01Hz ~ 10kHz
Symmetry Control	90% : 10% : 90% ; resolution:1%
Mode	Linear /Log sweep
Sweep Output	0 ~ -5Vpp into 10kΩ

SPECIFICATIONS	
TRIGGER CHARACTERISTICS	
Start/Stop Phase Range	80° ~ 90°
Rate	0.1Hz ~ 10kHz
Frequency Range	0.1Hz ~ 1MHz(Useful ~ 10MHz)
Ext Trig Frequency Range	DC ~ 1MHz, TTL compatible input level
Gate or Burst	Implemented by trigger settings
VCF(Voltage Controlled Frequency)	
Range	100:1(0 ~ 10V ±1V)
Input Linearity	<0.5% ~ 1MHz, <5% ~ 10MHz
Input Impedance	10 kΩ
GCV(Generator Controlled Voltage) OUTPUT	
0.2V ~ 2V as per different frequencies in the same frequency range	
TTL Output	
Level ≥ 3Vpp ; Fan-Out > 10 TTL Load	
FREQUENCY COUNTER	
INT/EXT	Switch selector
Range	5Hz ~ 150MHz EXT
Accuracy	Time base accuracy ±1 count
Time Base	±20ppm(23°C ±5°C) after 30 minutes warm up
Resolution	The maximum resolution is 100nHz for 0.1Hz and 1Hz for 100MHz
Input Impedance	1MΩ // 150pF
Sensitivity	≤35mVrms(5 ~ 100MHz); ≤45mVrms(100MHz~150MHz)
MEMORY	
Save/Recall	10 sets of front panel setting memories
INTERFACE	
RS-232C	
POWER SOURCE	
AC115V/230V ±15%, 50/60Hz	
DIMENSIONS & WEIGHT	
290(W) x 142(H) x 460(D)mm, Approx. 5kg	

ORDERING INFORMATION

GFG-3015 15MHz Programmable Function Generator

ACCESSORIES :

User manual x 1, Power cord x 1, Test lead GTL-101 x 2

OPTIONAL ACCESSORIES

- GTC-001 Instrument Cart, 450(W) x 430(D)mm (120V Input Socket)
- GTC-002 Instrument Cart, 330(W) x 430(D)mm (120V Input Socket)
- GTL-232 RS232C Cable, 9-pin Female to 9-pin, Null Modem for Computer

FREE DOWNLOAD

PC Software RS-232 Interface Software

RS-232 Interface PC Software

