

15MHz PROGRAMMABLE FUNCTION GENERATOR



GFG-3015 (15MHz)

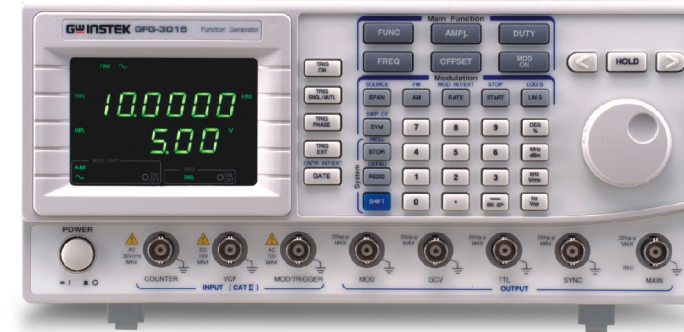


FEATURES

- * 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

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.

| 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 |



GFG-3015

Rear Panel



| 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

