

## Function Generator



### GFG-8219A (3MHz)

### GFG-8217A (3MHz)

#### FEATURES

- \* Frequency Range: 0.3Hz ~ 3MHz
- \* Waveforms: Sine, Triangle, Square, Ramp, TTL and CMOS Output
- \* External Voltage Controlled Frequency (VCF) Function
- \* Duty Cycle Control with Signal Inversion Capability
- \* Variable DC Offset Control

- \* Two-Step (-20dBx2) and Variable Attenuator
- \* Built-In 6 Digit Counter with INT/EXT Function Up to 150MHz /High Resolution
- \* LIN/LOG Sweep Mode
- \* INT/EXT AM/FM Modulation(GFG-8019A)
- \* GCV Output for Synchronization(GFG-8019A)

#### SPECIFICATIONS

<b>MAIN</b>	
Frequency Range	0.3Hz ~ 3MHz (7 Range)
Amplitude	> 10Vpp (into 50Ω load)
Impedance	50Ω ± 10%
Attenuator	-20dB ± 1dBx2
DC Offset	<-5V ~ >5V (into 50W load)
Duty Control	80% : 20% : 80% to 1MHz Continue variable
Display	6 digit LED display
<b>SINE WAVE</b>	
Distortion	≤ 1%, 0.3Hz ~ 200kHz
Flatness	< 0.3dB, 0.3Hz ~ 300kHz < 0.5dB, 300kHz ~ 3MHz
<b>TRIANGLE WAVE</b>	
Linear	≥ 98%, 0.3Hz ~ 100kHz ≥ 95%, 100kHz ~ 3MHz
<b>SQUARE WAVE</b>	
Symmetry	± 2%, 0.3Hz ~ 100kHz
Rise or Fall Time	≤ 100nS at maximum output (into 50Ω load)
<b>CMOS OUTPUT</b>	
Level	4Vpp ± 1Vpp ~ 14.5Vpp ± 0.5Vpp adjustable
Rise or Fall Time	≤ 120nS
<b>TTL OUTPUT</b>	
Level	≥ 3Vpp
Fan Out	20 TTL load
Rise or Fall Time	≤ 25nS
<b>VCF</b>	
Input Voltage	0V ~ 10V ± 1V (100 : 1)
Input Impedance	10kΩ ± 10%
<b>GCV(FOR GFG-8219A ONLY)</b>	
Output Voltage	To set the voltage between 0V ~ 2V as per different frequency
<b>SWEEP OPERATION</b>	
Sweep/Manual	Switch selector
Sweep/Rate	100 : 1 ratio max. and adjustable
Sweep/Time	0.5sec. ~ 30sec. adjustable
Sweep/Mode	Lin./Log. switch selector
<b>AMPLITUDE MODULATION (FOR GFG-8219A ONLY)</b>	
Depth	0 ~ 100%
MOD. Frequency	400Hz (INT), DC ~ 1MHz(EXT.)
Carrier BW	100Hz ~ 3MHz (-3dB)
EXT Sensitivity	≤ 10Vpp for 100% modulation

#### FREQUENCY MODULATION (FOR GFG-8219A ONLY)

Deviation	0 ~ ± 5%
MOD. Frequency	400Hz(INT), DC ~ 20kHz(EXT.)
EXT. Sensitivity	≤ 10Vpp for 10% modulation

#### FREQUENCY COUNTER

INT./EXT.	Switch selector
Range	0.3Hz ~ 3MHz (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 1Hz and 1Hz for 100MHz
Input Impedance	1MW // 150pF
Sensitivity	< 35mVrms (5Hz ~ 100MHz), ≤ 45mVrms (100MHz ~ 150MHz)

#### POWER SOURCE

AC115V/230V ± 15%, 50 / 60Hz

#### ACCESSORIES

Instruction manual x 1, Power cord x 1, GTL-101 x 2

#### DIMENSIONS & WEIGHT

251(W) x 91(H) x 291(D)mm, Approx. 2.2kg

#### ORDERING INFORMATION

<b>GFG-8219A</b>	3MHz Function Generator with GCV Function, AM/FM Modulation
<b>GFG-8217A</b>	3MHz Function Generator