

## GFG-8200A Specifications

The specifications apply when the GFG-8200A is powered on for at least 30 minutes under +20°C~+30°C.

### SPECIFICATIONS

MODEL		GFG-8215A/8216A/8217A/8219A	GFG-8250A / 8255A
MAIN	Frequency Range Amplitude Impedance Attenuator DC Offset Duty Control Display  Range Accuracy	0.3Hz ~ 3MHz (7 Range) > 10Vpp (into 50Ω load) 50Ω +_ 10% -20dB +_ 1dBx2 <-5V ~ >5V (into 50Ω load) 80% : 20% : 80% to 1MHz Continue variable 6 digit LED display *GFG-8215A does not have display. +_ 5%+1Hz (at 3 position) *only for GFG-8215A	0.5Hz ~ 5MHz (7 Range) > 10Vpp (into 50Ω load) 50Ω +_ 10% -20dB +_ 1dBx2 <-5V ~ >5V (into 50Ω load) 80% : 20% : 80% to 1MHz Continue variable 6 digit LED display
SINE WAVE	Distortion  Flatness	<_ 1%, 0.3Hz ~ 200kHz THD <_ 35dB below fundamental in all range (Specification applied from MAX. to 1/10 level) < 0.3dB, 0.3Hz ~ 300kHz < 0.5dB, 300kHz ~ 3MHz	<_ 1%, 0.5Hz ~ 100kHz THD <_ 30dB below fundamental in all range (Specification applied from MAX. to 1/10 level) <_ 0.3dB, below 500kHz <_ 1dB, below 5MHz
TRIANGLE WAVE	Linear	>_ 98%, 0.3Hz ~ 100kHz >_ 95%, 100kHz ~ 3MHz	>_ 98%, 0.5Hz ~ 100kHz >_ 95%, 100kHz ~ 5MHz
SQUARE WAVE	Symmetry Rise or Fall Time	+_ 2%, 0.3Hz ~ 100kHz <_ 100nS at maximum output (into 50Ω load)	+_ 2%, 1Hz ~ 100kHz <_ 50nS at maximum output (into 50Ω load)
CMOS OUTPUT	Level Rise or Fall Time	4Vpp +_ 1Vpp ~ 14.5Vpp+_ 0.5Vpp adjustable <_ 120nS	4Vpp+_ 1Vpp ~ 14.5Vpp+_ 0.5Vpp adjustable <_ 120nS
TTL OUTPUT	Level Fan Out Rise or Fall Time	>_ 3Vpp 20 TTL load <_ 25nS	>_ 3Vpp 20 TTL load <_ 25nS
VCF(Voltage Controlled Frequency)	Input Voltage Input Impedance	0V ~ 10V +_ 1V (100 : 1) 10kΩ +_ 10%	0V ~ 10V +_ 1V (100 : 1) 10kΩ +_ 10%
GCV(Generator Controlled Voltage) (for GFG-8219A/8255A only)	Output Voltage	To set the voltage between 0V ~ 2V as per different frequency	To set the voltage between 0V ~ 2V as per different frequency
SWEEP OPERATION (for GFG-8217A/8219A/8255A only)	Sweep/Manual Sweep/Rate Sweep/Time Sweep/Mode	Switch selector 100 : 1 ratio max. and adjustable 0.5sec. ~ 30sec. adjustable Lin./Log. switch selector	Switch selector 100 : 1 ratio max. and adjustable 0.5sec. ~ 30sec. adjustable Lin./Log. switch selector
AMPLITUDE MODULATION (for GFG-8219A/8255A only)	Depth MOD. Frequency Carrier BW EXT Sensitivity	0 ~ 100% 400Hz (INT), DC ~ 1MHz(EXT.) 100Hz ~ 3MHz (-3dB) <_ 10Vpp for 100% modulation	0 ~ 100% 400Hz (INT), DC ~ 1MHz(EXT.) 100Hz ~ 5MHz (-3dB) <_ 10Vpp for 100% modulation
FREQUENCY MODULATION (for GFG-8219A/8255A only)	Deviation MOD. Frequency EXT. Sensitivity	0 ~ +_ 5% 400Hz(INT), DC ~ 20kHz(EXT.) <_ 10Vpp for 10% modulation	0 ~ +_ 5% 400Hz (INT), DC ~ 20kHz(EXT.) <_ 10Vpp for 10% modulation

<b>FREQUENCY COUNTER</b> (except GFG-8215A)	Int./Ext. Range Accuracy Time Base  Resolution  Input Impedance Sensitivity	Switch selector 0.3Hz ~ 3MHz (5Hz ~ 150MHz EXT.) Time base accuracy $\pm 1$ count $\pm 20$ ppm (23°C $\pm$ 5°C) after 30 minutes warm up The maximum resolution is 100nHz for 1Hz and 1Hz for 100MHz $1M\Omega // 150pF$ $\leq 35mVrms$ (5Hz ~ 100MHz) $\leq 45mVrms$ (100MHz ~ 150MHz)	Switch selector 0.5Hz ~ 5MHz (5Hz ~ 150MHz EXT.) Time base accuracy $\pm 1$ count $\pm 20$ ppm (23°C $\pm$ 5°C) after 30 minutes warm up The maximum resolution is 100nHz for 1Hz and 1Hz for 100MHz $1M\Omega // 150pF$ $\leq 35mVrms$ (5Hz ~ 100MHz) $\leq 45mVrms$ (100MHz ~ 150MHz)
<b>GENERAL INFORMATION</b>	Power Source Accessories  Dimension Weight	AC115V, 230V $\pm 15\%$ , 50 / 60Hz GTL-101 x 2 (GTL-101 x 1 for GFG-8215A) User manual x 1 251(W) x 91(H) x 291(D) Approx. 2.0 kgs(GFG-8215A)Approx. 2.15kgs(GFG-217A) Approx. 2.1 kgs(GFG-8216A)Approx. 2.2 kgs(GFG-219A)	AC115V, 230V $\pm 15\%$ , 50 / 60Hz GTL-101 x 2 User manual x 1 251(W) x 91(H) x 291(D) Approx. 2.3 kgs (GFG-250A) Approx. 2.4 kgs (GFG-255A)