

## 2MHz Function Generator



GFG-8020H (2MHz)



### FEATURES

- \* Frequency Range: 0.2Hz ~ 2MHz
- \* Coarse and Fine Tuning
- \* Waveform : Sine, Triangle, Square, TTL Pulse
- \* CMOS Output
- \* Built-in 4 Digits Counter(INT only)
- \* Large 0.5" LED Display
- \* Variable DC Offset Control
- \* Output Overload Protection
- \* VCF Input Function

The GFG-8000 Series function generators deliver the most economic solution available for generating signals in the range of 0.2Hz ~ 2MHz. This series consists of the GFG-8020H and GFG-8015G.

GFG-8020H includes a CMOS output, a built-in 4-digit counter, a coarse/ fine tuning knob and an LED display.

Together with standard functions such as variable DC offset control, output load protection and VCF input, the GFG-8020H is the most economical choice for both education and industry.

| SPECIFICATIONS                            |  |
|---|--|
| <b>MAIN OUTPUT</b>                        |  |
| Waveforms                                 | SINE, TRIANGLE, SQUARE, TTL pulse and CMOS output                |
| Amplitude                                 | >20Vp-p (open circuit) ; >10Vp-p (into 50Ω load)                 |
| Impedance                                 | 50Ω±10%  |
| Attenuator                                | -20dB ± 1.0dB (at 1kHz)  |
| DC Offset                                 | <-10V to > +10V (<-5V to > +5V into 50Ω load)                    |
| Duty Control                              | 1:1 to 10:1 continuously adjustable                              |
| Display                                   | 4 digits LED display   |
| Frequency Range                           | 0.2Hz to 2MHz 7 ranges   |
| Frequency control                         | Separate coarse and fine tuning                                  |
| <b>SINE WAVE</b>                          |  |
| Distortion                                | <1% (0.2Hz ~ 20kHz), <2% (20kHz ~ 200kHz)                        |
| Frequency Response                        | <0.2dB (0.2Hz ~ 100kHz), <1dB (100kHz ~ 2MHz)                    |
| <b>TRIANGLE WAVE</b>                      |  |
| Linear                                    | 98% (0.2Hz ~ 100kHz), 95% (100kHz ~ 2MHz)                        |
| <b>SQUARE WAVE</b>                        |  |
| Symmetry                                  | <2%, 0.2Hz ~ 100kHz  |
| Rise/Fall Time                            | <120ns   |
| <b>CMOS OUTPUT</b>                        |  |
| Level                                     | (4Vp-p±1Vp-p) ~ (14.5Vp-p±0.5Vp-p) adjustable                    |
| Rise/Fall Time                            | <120ns   |
| <b>TTL OUTPUT</b>                         |  |
| Level                                     | >3Vp-p   |
| Rise/Fall Time                            | <30ns  |
| <b>VCF (Voltage Controlled Frequency)</b> |  |
| Input Voltage                             | Approx. 0V ~ 10V (±1V) input for 10:1 frequency ratio            |
| Input Impedance                           | 10kΩ ±10%  |
| <b>FREQUENCY COUNTER</b>                  |  |
| Mode                                      | Internal only  |
| Range                                     | 0.2Hz ~ 2MHz   |
| Accuracy                                  | Time base accuracy ±1Count                                       |
| Time Base                                 | Oscillation frequency 3.58MHz, Temp. stability ±20PPM (23°C±5°C) |
| Resolution                                | 0.1Hz, 1Hz, 10Hz, 100Hz, 1kHz                                    |
| <b>POWER SOURCE</b>                       |  |
| AC100V/120V/220V/230V±10%, 50/60Hz        |  |
| <b>DIMENSIONS &amp; WEIGHT</b>            |  |
| 230(W) x 95(H) x 280(D) mm, Approx. 2.1kg |  |

### ORDERING INFORMATION

**GFG-8020H** 2MHz Function Generator with 4 Digits LED Display, TTL/CMOS Output  
 ACCESSORIES :  
 User manual x 1, Power cord x 1, Test lead GTL-101 x 1

GFG-8015G includes TTL output with a 1000:1 tuning range, variable DC offset control, output load protection and VCF input. The GFG-8015G is also competitively price for education and industry.



GFG-8015G (2MHz)



### FEATURES

- \* Frequency Range : 0.2Hz ~ 2MHz
- \* Waveforms : Sine, Triangle, Square, TTL Pulse
- \* Variable DC Offset Control
- \* Output Overload Protection
- \* VCF Input Function
- \* 1000 : 1 Tuning Range
- \* Two-Steps Attenuator Plus Variable Control

|   |   |
|---|---|
| <b>MAIN OUTPUT</b>                        |   |
| Waveforms                                 | SINE, TRIANGLE, RAMP, SQUARE and TTL pulse Output         |
| Amplitude                                 | >20Vp-p (open circuit). > 10Vp-p (into 50Ω load)          |
| Impedance                                 | 50Ω±10%   |
| Attenuator                                | -20dB, -20dB±1.0dB (at 1kHz)                              |
| DC Offset                                 | <-10V ~ > +10V (<-5V ~ > +5V into 50 Ωload)               |
| Duty Control                              | 1:1 ~ 10:1 continuously rating                            |
| Frequency Range                           | 0.2Hz ~ 2MHz 7 ranges                                     |
| Range Accuracy                            | ±5% + 1Hz (0.2, 2.0 position)                             |
| <b>SINE WAVE</b>                          |   |
| Distortion                                | <1% 0.2Hz ~ 200kHz  |
| Frequency Response                        | <0.1dB 0.2Hz ~ 100kHz<br><0.5dB 100kHz ~ 2MHz             |
| <b>TRIANGLE WAVE</b>                      |   |
| Linear                                    | 98% (0.2Hz ~ 100kHz), 95% (100kHz ~ 2MHz)                 |
| <b>SQUARE WAVE</b>                        |   |
| Symmetry                                  | <2%, 0.2Hz ~ 100kHz                                       |
| Rise/Fall Time                            | <100ns  |
| <b>TTL OUTPUT</b>                         |   |
| Level                                     | >3Vp-p  |
| Rise/Fall Time                            | <25ns   |
| <b>VCF (Voltage Controlled Frequency)</b> |   |
| Input Voltage                             | Approx. 0 ~ 10V ± 1V input for 1000 : 1 ; frequency ratio |
| Impedance                                 | 10kΩ (±10%)   |
| <b>POWER SOURCE</b>                       |   |
| AC100V/120V/220V/230V±10% , 50/60Hz       |   |
| <b>DIMENSIONS &amp; WEIGHT</b>            |   |
| 230(W) x 95(H) x 280(D) mm, Approx. 2.0kg |   |

### ORDERING INFORMATION

**GFG-8015G** 2MHz Function Generator  
 ACCESSORIES :  
 User manual x 1, Power cord x 1, Test lead GTL-101 x 1