

# Function Generator

B1



CE



CE

## GFG-8216A (3MHz)

## GFG-8215A (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(GFG-8216A)

### SPECIFICATIONS

#### MAIN

|                 |                                                                             |
|-----------------|-----------------------------------------------------------------------------|
| Frequency Range | 0.3Hz ~ 3MHz (7 Range)                                                      |
| Amplitude       | > 10Vpp (into 50Ω load)                                                     |
| Impedance       | 50Ω ±10%                                                                    |
| Attenuator      | -20dB ± 1dBx2                                                               |
| DC Offset       | <-5V ~ >5V (into 50Ω load)                                                  |
| Duty Control    | 80% : 20% : 80% to 1MHz Continue variable                                   |
| Display         | 6 digit LED display                                                         |
| Range Accuracy  | *GFG-8215A does not have display.<br>± 5%+1Hz (at 3 position) for GFG-8215A |

#### SINE WAVE

|            |                                                   |
|------------|---------------------------------------------------|
| Distortion | ≤ 1%, 0.3Hz ~ 200kHz                              |
| Flatness   | < 0.3dB, 0.3Hz ~ 300kHz<br>< 0.5dB, 300kHz ~ 3MHz |

#### TRIANGLE WAVE

|        |                                               |
|--------|-----------------------------------------------|
| Linear | ≥ 98%, 0.3Hz ~ 100kHz<br>≥ 95%, 100kHz ~ 3MHz |
|--------|-----------------------------------------------|

#### SQUARE WAVE

|                   |                                           |
|-------------------|-------------------------------------------|
| Symmetry          | ± 2%, 0.3Hz ~ 100kHz                      |
| Rise or Fall Time | ≤ 100nS at maximum output (into 50Ω load) |

#### CMOS OUTPUT

|                   |                                           |
|-------------------|-------------------------------------------|
| Level             | 4Vpp ± 1Vpp ~ 14.5Vpp ± 0.5Vpp adjustable |
| Rise or Fall Time | ≤ 120nS                                   |

#### TTL OUTPUT

|                   |             |
|-------------------|-------------|
| Level             | ≥ 3Vpp      |
| Fan Out           | 20 TTL load |
| Rise or Fall Time | ≤ 25nS      |

#### VCF

|                 |                         |
|-----------------|-------------------------|
| Input Voltage   | 0V ~ 10V ± 1V (100 : 1) |
| Input Impedance | 10kΩ ± 10%              |

#### FREQUENCY COUNTER(For GFG-8216A Only)

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| 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 | 1MΩ // 150pF                                                |
| Sensitivity     | ≤ 35mVrms (5Hz ~ 100MHz)<br>≤ 45mVrms (100MHz ~ 150MHz)     |

#### POWER SOURCE

AC115V/230V ± 15%, 50/60Hz

#### ACCESSORIES

Instruction manual x 1, Power cord x 1, GTL-101 x 2;  
GTL-101x1 for GFG-8215A

#### DIMENSIONS & WEIGHT

251(W) x 91(H) x 291(D)mm, Approx. 2.1kg

### ORDERING INFORMATION

|                  |                                                 |
|------------------|-------------------------------------------------|
| <b>GFG-8216A</b> | 3MHz Function Generator with 6Digit LED Display |
| <b>GFG-8215A</b> | 3MHz Function Generator                         |