

## FG-32 SPECIFICATIONS

### 1. GENERAL SPECIFICATIONS:

#### A: Generator

Frequency -- 0.5Hz ~ 3MHz with 5-digit LED display, Max. resolution 0.001Hz in 6 steps.

Waveform output -- Sine, Square, Triangle, Ramp, Positive Pulse and Negative Pulse; 6 waveforms total.

Stability -- 0.1% ~ 15 minutes after power-on.  
0.2% ~ 24hrs after power-on.

#### B: Counter

Display -- 5 digits 0.36" red LED.

Max. Resolution -- 0.001Hz.

Display unit -- Hz / KHz Automatically controlled by CPU.

#### C: Common Specification

Limits of operation -- 0°C~40°C,10%~80%R.H.

Storage Environment -- -20°C~70°C,0%~90%R.H.

Power consumption -- 25W.

Power source -- AC 115V ( $\pm 10\%$ )50/60Hz,FUSE:600mA

AC 230V ( $\pm 10\%$ )50/60Hz,FUSE:300mA

Ventilation -- DC 12V / 100mA Fan.

Dimensions -- 275 x 90 x 300mm

Weight -- 2.5Kg Net.

Accessory -- Power cord, operating manual.

### 2. RAMP WAVE:

Frequency: 0.5Hz ~ 2.5MHz, 5-digit LED display, Max. resolution 0.001Hz, 6 steps selected by rotary switch.

Symmetry: 80% (Rise wave) to 20% (Fall wave), < 5%, 1Hz ~ 100KHz.

Rise Wave Linearity: < 2%, 1Hz ~ 100KHz.

### 3. TRIANGLE WAVE:

Frequency: 0.5Hz ~ 3MHz, 5-digit LED display, Max. resolution 0.001Hz

Symmetry: 50% (Rise wave) to 50% (Fall wave), < 2%, 1Hz ~ 100KHz.

### 4. SINE WAVE:

Frequency: 0.5Hz ~ 3MHz, 5-digit LED display, Max. resolution 0.001Hz.

Distortion: < 2%, 1Hz ~ 100KHz.

Harmonic Ratio: < 30dB, 100KHz ~ 3MHz

Frequency Response: < 0.1dB, up to 100KHz.

< 1dB, 100KHz to 3MHz.

## 5. SQUARE WAVE:

Frequency: 0.5Hz ~ 3MHz, 5-digit LED display, Max. resolution 0.001Hz.

Symmetry: 50% (Positive half) to 50% (Negative half). < 2%, 1Hz ~ 100KHz

Rise Time: < 60ns.

## 6. POSITIVE PULSE:

Frequency: 0.5Hz ~ 2.5MHz, 5-digit LED display.

Width: 0.4sec ~ 100ns, continuous adjustment.

Symmetry: 20% to 80%, < 5%, 1Hz ~ 100KHz.

Rise Time: < 60ns.

## 7. NEGATIVE PULSE:

Frequency: 0.5Hz ~ 2.5MHz, 5-digit LED display, Max. resolution 0.001Hz.

Width: 0.4sec ~ 100ns.

Symmetry: 80% to 20%, < 5%, 1Hz ~ 100KHz.

Fall Time: < 60ns.

## 8. MAIN OUTPUT:

Output Impedance: 50W, < 2% Accuracy

Max. Output: 20Vp-p (No-load), ±1V

10Vp-p (50Ω load) ±0.5V

Min. Output: 0.1Vp-p (No-load), or 0.05Vp-p (50Ω load)

Attenuator: One -20dB Attenuator, < 2% Accuracy

## 9. SYNCHRONOUS OUTPUT:

Output Impedance: 50Ω, < 2%, Accuracy.

Output Level: TTL level, > 3Vp-p fixed amplitude.

Fan Out: > 20

Rise Time: < 30nS.

## 10. VCF INPUT:

Input Voltage: 0 ~ 10V

Input Frequency: DC ~ 1KHz

Input Frequency Variance: 1:1 to 1:1000

## 11. SWEEP SYNCHRONOUS OUTPUT:

Output Impedance: 1KHz, < 2%

Output Waveform: Linear or Log sweep ramp wave.

Output Amplitude: 10Vp-p (No load) or 5Vp-p (1K $\Omega$  load)

Output Frequency: 0.2Hz ~ 100Hz continuous adjustment.

## 12. SWEEP GENERATOR:

Sweep Form: Linear or Log switchable.

Sweep Speed: 5sec ~ 10ms, continuous adjustment.

Sweep Width: 1:1 ~ 1:100

## 13. COUNTER:

Display: 5 digits, 0.36" red LED display.

Max. Resolution: 0.001Hz

Display unit: Hz / KHz, Auto range.

Time base: 20MHz

Temperature coefficient: < 10ppm /  $^{\circ}$ C

Accuracy: < 0.002%

Power Supply: +5V, 160mA

### Internal Counter:

Range: Auto range with 4 resolutions, 0.001Hz / 0.01Hz / 0.001KHz / 0.01KHz, Auto control by CPU.

Display: 0.500Hz ~ 3000.0KHz, Auto select by CPU.

Gate time: Variable, 0.25sec ~ 2sec, Auto - setting.

Min. display digits: 4 digits.

### External Counter:

Max. Input Voltage: < 250Vrms

Input Impedance: 1M $\Omega$ , < 2%

Input Frequency: 0.2Hz ~ 60MHz

Attenuator: \*20 (-26dB) Attenuator

Coupling: AC (HF) -- For >100KHz frequency.

DC (LF) -- With 100KHz filter, for frequency <100KHz

Range: The same as internal counter.

Min. display digits: 4 digits.

Gate Time: 0.25sec ~ 10sec, Auto - setting, depends on the input frequency

Sensitivity: < 30mVrms (1MHz)