



# RSR Sweep Function Generator

Part No. 01FG32

## 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 (±10%) 50/60Hz, FUSE:600mA  
AC 230V (±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), ± 1 V  
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:** 500, < 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 (1KΩ 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 / °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:** 1 MΩ, < 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:** < 30m Vrms (1MHz)