

## GF-232B 3 MHz function generator



### Features

- ✓ Multiple waveforms: Sine, Square and Triangle.
- ✓ Frequency and TTL outputs.
- ✓ High resolution using DDS technology.
- ✓ High frequency accuracy:  $\pm 20$  ppm.
- ✓ Low distortion: -55 dBc @  $\leq 200$  kHz.
- ✓ High resolution: 0.1 Hz.
- ✓ 6 digit LED display with waveform and frequency indicator.
- ✓ Economical type, low cost.
- ✓ Output overload protection.

SPECIFICATIONS	GF-232B		
<b>Main output</b> Output waveforms Amplitude range Impedance Attenuator DC Offset Duty range Display	Sine, Square, Triangle 10 Vpp (50 $\Omega$ load) 50 $\Omega$ $\pm 10$ % -40 dB $\pm 10$ % From < -5 V to > +5 V (50 $\Omega$ load) From 25 % to 75 %, $\leq$ (Square Wave) 6 digits LED display	<b>Triangle wave</b> Linearity	$\geq 98$ % (from 0.1 Hz to 100 kHz) $\geq 95$ % (from 100 kHz to 1 MHz)
		<b>Square wave</b> Symmetry Rise / Fall time	$\pm 5$ % of period +4 ns (0.1 Hz to 100 kHz) $\leq 100$ ns at maximum output, (50 $\Omega$ load)
		<b>TTL output</b> Level Fan out Rise/fall time	$\geq 3$ Vpp 20 TTL Load $\leq 25$ ns
		<b>Power supply</b> Voltage Frequency	100 / 120 / 220 / 240 V AC $\pm 10$ % (voltage setting is factory installed) 50 / 60 Hz
<b>Frequency</b> Waveform range Sine / Square Triangle Resolution Stability Accuracy Aging	From 0.1 Hz to 3 MHz From 0.1 Hz to 1 MHz 0.1 Hz maximum $\pm 20$ ppm $\pm 20$ ppm $\pm 5$ ppm / year	<b>Operating environmental conditions</b> Temperature Max. humidity	Indoor use, Install category II Pollution degree 2 From 0 to 40 $^{\circ}$ C operation From -10 to 70 $^{\circ}$ C storage $\leq 80$ % (from 0 to 40 $^{\circ}$ C) operation $\leq 70$ % storage
		<b>Mechanical features</b> Dimensions Weight	251 (W.) $\times$ 91 (H.) $\times$ 291 (D.) mm Approx 2.1 kg
<b>Sine wave</b> Harmonic distortion (*)  Flatness (**)	$\geq -55$ dBc (from 0.1 Hz to 200 kHz) $\geq -40$ dBc (from 0.2 MHz to 2 MHz) $\geq -35$ dBc (from 2 MHz to 3 MHz) < $\pm 0.3$ dB (from 0.1 Hz to 1 MHz) < $\pm 0.5$ dB (from 1 MHz to 2 MHz) < $\pm 1$ dB (from 2 MHz to 3 MHz)		

Specifications valid after a working time of 30 minutes @ 18  $^{\circ}$ C ~ 28  $^{\circ}$ C ambient temperature.

(\*) Harmonic distortion specification valid at maximum position without any attenuation to 1/10 of any combination setting, TTL Off.

(\*\*) Flatness specification valid at the maximum amplitude relating to 1 kHz.