150MHz RF GENERATOR

The GRG-450B comes right on the spot for applications requiring even higher frequency: up to 450MHz on harmonics. The panel operation is user-friendly and effective, represented by the large main meter which allows seeing the target frequency at a glance. If extra sensitivity is required, The GRG-450B can connect the monitor output to an external device such as a digital frequency counter. The frequency range is divided into seven zones with dial access, giving shortcuts to different application ranges. AM modulation and the associated audio output are enabled using a built-in modulator or input from an external device. Gain adjustment is available in fine mode, coupled with a handy high/low range selection feature. Compact size at, 247 (W) x 158 (H) x 140 (D) mm, and light weight 2.5kg, allow the GRG-450B to be carried around anytime, and to be used at anywhere.

GRG-450B (150MHz)

FEATURES

* **Frequency Range from 100kHz ~ 150MHz (up to 450MHz on Harmonics)**
* **Int/Ext AM Modulation, 0 ~ 100%**
* **Frequency Monitor Output for EXT Frequency Counter**

SPECIFICATIONS

MAIN OUTPUT	
Frequency	100kHz ~ 150MHz (up to 450MHz on harmonics)
Range	A 100 ~ 290kHz B 290 ~ 900kHz C 0.9 ~ 3.0MHz D 3.0 ~ 11MHz E 10 ~ 35MHz F 32 ~ 150MHz (96 ~ 450MHz, calibrated harmonics)
Accuracy	±5%
Level	100mVrms approximately up to 35MHz
Level control	High/Low switchable and fine control
AMPLITUDE MODULATION	
Internal	Frequency: 1kHz Percentage: 30% max and adjustable
External	Frequency: 50Hz to 20kHz Sensitivity: < 1Vrms
AUX OUTPUT	
Audio Output Frequency: 1kHz Level: 1 Vrms MIN, fixed	
FREQUENCY MONITOR	
Frequency: Oscillation frequency Level: 50mVrms MIN	
POWER SOURCE	
AC 100/115/230V ±10% , 50/60Hz	
DIMENSIONS & WEIGHT	
247(W) x 158(H) x 140(D)mm, Approx. 2.5kg	

ORDERING INFORMATION

GRG-450B 150MHz RF Generator

ACCESSORIES :
User manual x 1, Power cord x 1, Test lead GTL-110 x 1

AUDIO GENERATOR

The GAG-809/810 provide a convenient solution for low frequency (< 1MHz) signal generation, specifically for audio bandwidth. Intuitive and simple panel interface provides quick frequency and amplitude adjustment, with dial/key shortcuts to different ranges. Square wave generation covers digital application in addition to the traditional analog using sine waves. Distortion is kept at minimum level, especially at the audible frequency range: 0.02% or less distortion factor for 500Hz~20kHz. The external synchronization signal input helps collaborating with other measurement devices.

GAG-809/810 (1MHz)

CE

FEATURES

* **Frequency from 10Hz ~ 1MHz**
* **0.02% Low Sine wave Distortion (GAG-810 Only)**
* **6 Steps Output Attenuator**
* **EXT SYNC Function**

SPECIFICATIONS

SINE WAVE CHARACTERISTIC	
Frequency Range	10Hz ~ 1MHz, 5 Ranges
Frequency Indicator	Dial Scale
Frequency Accuracy	± 3% + 1Hz (at x10, x100)
Output Voltage	5 Vrms (600 load)
Frequency Response	10Hz ~ 1MHz±0.5dB(at 600 load) Reference Frequency (1kHz)
Distortion Factor	500Hz ~ 20kHz : ≤0.02% (GAG-809 : ≤0.1%) 100Hz ~ 100kHz : ≤0.05% (GAG-809 : ≤0.3%) (x 10 range for 100Hz, x 1k range for 100kHz) 50Hz ~ 200kHz : ≤0.3% 20Hz ~ 500kHz : ≤0.5% 10Hz ~ 1MHz : ≤ 1.5%
SQUARE WAVE	
Output Voltage	≥10Vpp (no load)
Overshoot	≤2% (at 1kHz, max output)
Rise & Fall Time	< 200nS
Duty Ratio	50%±5%
EXT. SYNCHRONIZATION	
Synchronizing Range	±1%/Vrms
Max. Allowable Input	15V (DC + AC peak)
Input Impedance	150k
OUTPUT	
Output Impedance	600
Output Attenuator	0, -10, -20, -30, -40, -50dB 6 ranges (accuracy ±1dB at 600 load)
POWER SOURCE	
AC 100/120/220/230V±10% , 50/60Hz	
DIMENSIONS & WEIGHT	
130(W) x 210(H)x292(D)mm , Approx 3 kg	

ORDERING INFORMATION

GAG-809 1MHz Audio Generator
GAG-810 1MHz Audio Generator with 0.02% Low Sine Wave Distortion

ACCESSORIES :
User Manual x 1, Power cord x 1, Test lead GTL-103 x 1