

AM/FM SIGNAL GENERATOR

SG-1240



The **SG-1240** is a state-of-the-art high-performance RF signal generator based upon a PLL synthesizer. It features AM, FM and Phase modulation over 10kHz ~ 1040MHz. The display resolution of the unit is 10Hz for frequencies up to 500MHz, and 20Hz beyond the 500MHz range. Presetting the output parameters are done easily by storing the desired data into the memory of the instrument.

The memory offers a maximum of 100 storage space. Any stored data can be quickly recalled by simply entering the address. If desired, preset data can be protected against accidental erase. Any error made during the data entries is indicated by an error number which is cross referenced in the manual.

Two remote functions are offered for SG-1240. The optional GPIB Interface and Remote Controller allow the user to control the function generator either through a computer or the Remote Controller. The remote control functions, and the high quality outputs make SG-1240 an excellent choice either for production test or a laboratory use. The internal output stage of SG-1240 is protected against reverse power flow in case any external RF power source of up to 25W is applied to the output terminals by accident.

■ FEATURE

- Convenient and time-saving set up for desired data entries
- Self-test and calibration functions are included.
- Reverse power protection ensures the output circuit is protected against external power.
- GPIB Interface function for an automated system design.

STANDARD ACCESSORIES :

- Output Cable: 1ea
- Operation Manual: 1ea

Option

- Remote Controller RC-1200-1
- GPIB Interface Card IB-1240-1



Remote Controller : RC-1200-1

■ Technical Specification

Specification		SG-1240
FREQUENCY (CARRIER)	Range	100kHz ~ 1040MHz
	Resolution	10Hz in 10kHz ~ 520MHz, 20Hz in 520MHz ~ 1040MHz
	Display	9 digits (Green LED)
	Accuracy	Better than $\pm 1.5 \times 10^{-6}$ (at 0 ~ 40°C) (After 20 minutes warm up)
MODULATION (FM)	Deviation	0 ~ 100kHz (1MHz ~ 1040MHz) / Carrier Freq. \times 10% (Below 1MHz)
	Resolution	10Hz (0~10KHz deviation) 100Hz (10KHz~100KHz deviation)
	Accuracy	$\pm 5\%$ at 1KHz/400Hz Mod.
	Frequency Response	± 0.5 dB (50Hz ~ 50kHz)
	Distortion	< 2% Total Harmonic Distortion (at 1KHz Mod., Max.-deviation and Carrier Freq. > 250KHz) < 0.5% (at Carrier Freq. > 250KHz, Deviation < 25KHz)
MODULATION (PHASE)	Range	0 ~ 10 Radians
	Resolution	0.01 Radians
	Frequency Response	± 1 dB (10Hz~10KHz)
	Distortion Accuracy	$\pm 5\%$ at 1KHz Mod
MODULATION (AM)	Range	0 ~ 99.5%
	Resolution	0.5%
	Accuracy	Better than $\pm 4\%$ Depth-setting + 1% at 1KHz Mod.
	Frequency Response	$\pm 0.5\%$ (50Hz ~ 15KHz)
MOD. OSCILLATOR (FOR INTERNAL MOD)	Frequency	1KHz / 400Hz
	Distortion	Less than 1%
EXTERNAL MOD INPUT	Range	10Hz ~ 50KHz
	Input Level	0.9 ~ 1.1Vrms (with Modulation ALC)
	Input Impedance	Approx. 100 k Ω
RF OUTPUT	Range	-127dBm ~ +6dBm (0.2 μ V ~ 892mV)
	Display Resolution	0.1 dB
	Accuracy	± 1 dB (10KHz~1040MHz, and above -10dBm) ± 2 dB (10KHz~1040MHz, and below -10dBm)
	Flatness	Better than ± 0.5 dB (10KHz~1040MHz, -10dBm~+6dBm)
	VSWR	< 1.5:1 (Below -10dBm)
	Output Impedance	50 Ω
	Protection	Reverse Power 25W max.
	SPURIOUS	Better than -35dB (at carrier Freq. < 62.5MHz, and 0dBm) Better than -25dB (at carrier Freq. > 62.5MHz, and 0dBm)
RESIDUAL MOD.	FM Component	: 7Hz or Less
	AM Component	: 0.05% or Less
MEMORY & SETTING FUNCTIONS	Address 0~19	: Complete Store (Freq., Mod, Output Level)
	Address 20~99	: Carrier Frequency Store
	RF Output	: 3 Independent Memory
	Preset	: FM 3.5KHz, 22.5KHz, 75KHz / AM : 30%
General	STD Freq. Input	: 10MHz, 1Vrms
	Input Power	: AC110V/117V/220V/.240V, 50/60Hz
	Dimensions	: 430(W) X 100(H) x 420(D)mm
	Weight	: 16kg