RF Signal Generator

USG-LF44

The USG-LF44 RF signal generator is a pocket-sized and USB interface compatible RF signal generator. It covers the frequency range from 35MHz ~ 4400MHz. The USG-LF44 provides continuous wave (CW) signal outputs without any signal modulation function.

The built-in electronic attenuator of the USG-LF44 allows an adjustable power range between -30dBm to 0dBm. The USG-LF44 has several operational modes including fixed frequency, frequency sweep, frequency hopping, and power sweep.

A USG CD-ROM provides dedicated PC application programs, which were developed under JAVA software structure. This USG PC application program supports operating systems such as Windows 2000/XP/Vista/7/8, Linux & Mac OS X through the USB interface.

Users can download USG APP to smart phone or tablet with Android 4.0 or above. To operate USG, use USB-OTG connecting cable to connect tablet (or smart phone) and USG. The Android APP application software for the USG signal generator is available on Google Play Store.

The USG signal generator can be designated as the tracking generator for GSP-730 spectrum analyzer to conduct measurement functions of scalar network analyzer. A USG CD-ROM provides PC application programs for the GSP-730 Primary RF software. Users can, using a Windows OS computer, control USG and GSP-730 via the Primary RF software.

FEATURES

* Frequency Range : 34.5MHz ~ 4400MHz
* Output Power Range : -30dBm ~ 0dBm
* Continuous Wave Signal Without any Modulation
* Support Fixed Frequency, Frequency Sweep, Frequency Hopping & Power Sweep Mode
* -107dBc/Hz Phase Noise@100kHz Offset
* Frequency Resolution : 10kHz
* PC USB Interface Powered and Controlled
* External PC Software Support Different Operating System

SPECIFICATIONS
FREQUENCY RANGE
34.5 MHz ~ 4.4 GHz
OUTPUT POWER
-30 dBm ~ 0 dBm, in 1 dB steps
INTERNAL REFERENCE FREQUENCY
25 MHz, aging ±1 ppm at first year
FREQUENCY ACCURACY (0 dBm Output Level)
± 150 Hz at 100MHz
FREQUENCY RESOLUTION
10 kHz
OUTPUT ISOLATION
$\leqq$ -75 dBc , Output Control On/Off
MODE CONTROL
Fixed Frequency / Single Sweep / CW Sweep / Hopping / Power Sweep
STEP DWELL
$\leqq$1000 ms in 1 ms steps
FREQUENCY OFFSET
-50 kHz ~ 50 kHz in 10 kHz steps
OUTPUT FLATNESS (0 dBm Output Level)
-1 dBm ~ 3.5 dBm, typical
PHASE NOISE
Carrier Frequency
fc = 1.0 GHz
at 10kHz Offset Frequency
< -97 dBc/Hz, typical -100 dBc/Hz
at 100kHz Offset Frequency
< -107 dBc/Hz, typical -110 dBc/Hz
2ND HARMONICS (0 dB Attenuation)
$\leqq$ -15 dBc, typical
34.5 MHz ~ 2.0 GHz
$\leqq$ -10 dBc, typical
2.0 GHz ~ 3.0 GHz
$\leqq$ -25 dBc, typical
3.0 GHz ~ 4.4 GHz
3rd HARMONICS (0 dB Attenuation)
$\leqq$ -5 dBc, typical
34.5 MHz ~ 2 GHz
$\leqq$ -20 dBc, typical
2.0 GHz ~ 3.0 GHz
$\leqq$ -40 dBc, typical
3.0 GHz ~ 4.4 GHz
SPURIOUS RELATED TO RESOLUTION SETTINGS
$\leqq$ -30 dBc, typical, Resolution < 1MHz
$\leqq$ -65 dBc, typical, Resolution $\geqq$ 1MHz
SPURIOUS RELATED TO THE FUNDAMENTAL OUTPUT
$\leqq$ -60 dBc, typical

ORDERING INFORMATION

USG-LF44	RF Signal Generator