

## Miniature Signal Generators SG Series

The SG series of Miniature Signal Generators are supplied with control software, USB to mini USB cable and AC power supply adaptor.



Operating frequency range  
25–6000MHz



Ethernet Control



USB



High Output  
+13dBm up to 3GHz  
+6dBm between 3-6GHz

- 25 - 6000MHz
- Full Range Tuning
- Frequency & Level Control
- USB, Ethernet and RS-232 Interface
- External or Internal Reference
- Non-Volatile Memory
- RoHS Compliant

\* Image Representative of Range

RF Performance				
Frequency Range	25 - 6000MHz			
Frequency Step Size	100Hz			
Output Power Level (+/-1.5dBm)	+13dBm, < 3GHz +6dBm, 3-6GHz			
Output Range	+13dBm to -17dBm, 0.5dB Steps (output level set in dBm), < 3GHz +6dBm to -17dBm, 0.5dB Steps (output level set in dBm), 3-6GHz			
Internal Reference	100MHz, ±20ppm over temperature, ±1ppm per year (±3ppm in 1st year)			
Phase Noise Max (dBc/Hz)	Frequency	1KHz Offset	10KHz Offset	100KHz Offset
	25 - 250MHz	-98	-106	-112
	250 - 1000MHz	-98	-96	-106
	1000 - 3000MHz	-92	-94	-101
	3000 - 6000MHz	-83	-85	-92
Spurious	Maximum: < -50dBc, Typical: < -70dBc			
Harmonics	Maximum: -20dBc, Typical: -25dBc			
RF Output connector	SMA Female			
Reference Connector	SMA Female Reference Input / Output autodetect and switch 100MHz Output Selectable 10 or 100MHz input (software programmable frequency) @ -4 to +12dBm			
Power				
Power Input	9 - 28V DC 12V, 3.0A AC adaptor with 1.20m lead included Current consumption: 300mA typ. at 12V Can be powered also via USB3.0, current consumption: 860mA typ. at 5V			
Power Selection	Automatic Switching Coaxial Power jack selected by default USB power used when coaxial power not present USB power used when coaxial power not present			

Interface	
Control Interface	USB: Virtual COM port RS-232: 9-pin male D-sub connector Ethernet: RJ45 connector
Output Modes	Continuous Sweep On/Off via external trigger
External Trigger	Pin 4 of RS-232 connector: Pulse TTL/RS232 levels, 50ms min. pulse width Manual trigger via GUI
Status Indicators	Power Lock RF Output Reference Out
PC User Interfaces	Third-part terminal application (e.g. HyperTerm): • ASCII commands  Graphical User Interface Executable File: • Adjust frequency and output power level • Set reference frequency • Select operation mode • Set power-on defaults • Adjust sweep configuration • Change device network settings • Control multiple units
Internal Memory	Non-volatile, automatically stores most recent settings
Environmental	
Operating Temperature	-20 to +50C
Storage Temperature	-40 to +85C
Mechanical	
Dimensions	163mm x 103mm x 30.5mm
Weight	350g
Material	Aluminium extrusion Aluminium endplates with black legend Rubber Feet

- Options:
- OPT01 +20dBm output level (in 19" x 1U)
  - OPT02 Rechargeable Battery Powered (not with 19" x 1U)
  - OPT03 Portable Bench Instrument – 260 x 150 x 420 mm
  - OPT04 Ruggedised Portable Instrument – 380 x 310 x 245mm
  - OPT05 Weatherproof ODU – 360 x 210 x 95 mm (remote control only)
  - OPT06 ASG Mounting Bracket Pair - Supplied fitted to the unit

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

