Atlantic Microwave

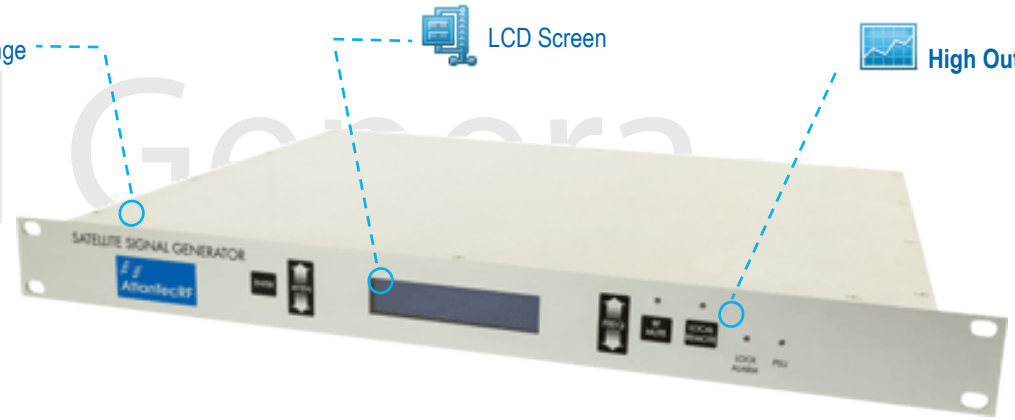
Signal Generators Ethernet Control

ESG Series

- Satellite Bands – L, S, C, X, Ku, DBS, Ka, Q
- Frequency Steps from 1KHz
- Local and Remote Control with GUI
- Internal or External Reference
- Ethernet or RS485 Control
- Good Phase Noise
- Choice of Housing

The ESG series of Ethernet controlled signal generators provide economical and versatile solutions where there is a need to input microwave frequencies for test purposes at remote locations, antenna sites, equipment cabins and laboratories related to satellite communications, radar systems, EW systems, scientific apparatus and similar applications.

Covering frequencies from 0.5 to 46 GHz in bands specific to individual industries and also for general purpose applications, these instruments are controllable in frequency and level either locally or remotely via a GUI thereby facilitating the application of more efficient testing regimes.



General Specifications	
Output Frequency Ranges	0.5 - 46 GHz
Satellite Frequency Bands	L, S, C, X, Ku, DBS, Ka, Q
Frequency Steps	1KHz to 25MHz
Switching Time	5msec. max
Internal Reference	With output feature)
Temperature Stability	0.002PPM over 0+40C
Aging	0.03PPM/year
Ref. Phase Noise @ offset frequencies	10Hz -130dBc/Hz 100Hz -155dBc/Hz 1KHz -165dBc/Hz
External Reference (switchable)	Switchable
Reference	10 MHz Internal/External (switchable)
Level	0dBm +/3dB
RF Output Power	+13dBm min.
RF Output Level Control	0-60dB in 0.25dB steps
Harmonics	-20dBc typ.
Spurious	-60dBc max.
Output VSWR	1.5:1 typ.
RF Mute Option	80dB min.
Lock Alarm Indicators	GUI, LED, TTL high for locked
Input Power	80-240V, 50-60Hz
Rear Panel	Int. Ref. Output Connector – BNC male Ext. Ref. Input Connector – BNC female Ref. Int/Ext switch RF Output Connector Up to 20GHz SMA female 20-40GHz 2.92mm female Above 40GHz 2.4mm female Ethernet Connector – RJ45

Environment	
Operating Temperature	0+40C
Storage Temperature	-10+70C
Front Panel	LCD screen Local/Remote Frequency Increase/Decrease Attenuation Increase/Decrease RF Mute PSU Indicator Phase Lock Indicator
Size	19" x 1U x 13.5" (343mm) Including connectors and protrusions

Phase Noise (dBc/Hz) typical				
Offset Frequency (Hz)	Frequency (GHz)			
	2.0	10.0	12.0	27.0
100	-80	-70	-65	-60
1K	-90	-85	-75	-70
10K	-95	-90	-80	-75
100K	-95	-90	-80	-80
1M	-120	-115	-115	-110

Options:

-00 Standard
-01 Specific Programmed Frequency Steps
-02 Specific Programmed Attenuation Steps
-03 +20dBm output level – bandwidth dependent
-04 Dual Redundant Power Supplies – Diode Controlled
-05 RS485 Control
-06 Rechargeable Battery Powered (not with 19" x 1U)
-10 Standard Housing - 19" x 1U
-11 Portable Bench Instrument – 260 x 150 x 420 mm
-12 Ruggedised Portable Instrument – 380 x 310 x 245mm
-13 Weatherproof ODU – 360 x 210 x 95 mm (remote control only)

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.