Atlantic Microwave
A Division of ETL Systems

SG-G1S-B3-01-S5

- Covers VHF, UHF, L-band, WiFi
- Ideal for precision applications
- 100 Hz Frequency Steps
- Optional External Reference
- Compact 1U chassis
- Remote/Local Control

50MHz-3GHz Modular Signal Generator

SG-G1S-B3-01-S5 50MHz-3GHz Signal Generator covers everything from VHF to WiFi, housed in the Genus 1U chassis. Covering frequency range 50MHz to 3GHz in a single band, offering flexibility in a compact and lightweight housing. Remotely controllable via webpage through ethernet port or locally controllable using HMI touchscreen.

Chassis - Specification	
Dimensions / Weight / Colour	1U high x 550mm deep x 19" wide / <10 kg / RAL9003—White (Semi-matte)
Capacity	Total of 17 module slots. Note that 1 slot will be used for fan (if required) and 1 slot will be used for 10 MHz EXT inject module (if required).
Modules per chassis	17 max (dependant upon configuration).
Temperature	Operating: -20˚C to +60˚C / Storage: -40˚C to +90˚C
Location / Humidity / Altitude	Indoor use only / 20 to 90% non-condensing / 10,000 feet AMSL (Operational) 30,000 feet AMSL (Storage) *Above Mean Sea Level*
Control & Monitoring	Local: HMI touch screen Remote: Ethernet via RJ45, 10BaseT/100 BaseTx. TCP/IP, SNMP V3 & HTTPS & Web browser interface HMI and CPU field replaceable. Each module independently monitored and reported.
MTTR	20 minutes (15 minutes to retrieve spare part and 5 mins to replace) Applies to LRUs only and assumed in house stock
AC Input / Consumption	85-264Vac 50/60Hz / 150 W
PSU Redundancy	Dual redundant and alarmed. Hot swappable
Input & Output ports	Reference; SMA Output; SMA

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Signal Generator Module - RF Parameters			
Frequency	Min	50 MHz	
	Max	3 GHz	
Frequency - Steps		100 Hz	
Output Level	Min	- 30 dBm	
	Max	+ 10 dBm	
Output Level - Steps		0.1 dB	
Output Level - Accuracy	0.05 - 3GHz	± 1.0 dB	
Spurious	Non-Harmonic	0.05 - 3 GHz	-50 dBc
	Harmonic Odd	0.05 - 3 GHz	-12 dBc
	Harmonic Even	0.05 - 3 GHz	-20 dBc
	Subharmonic	0.05 - 3 GHz	-90 dBc
Internal Reference	Frequency	10 MHz	
	Accuracy	At 23°C	±2.0 ppm
	Stability	-20 to +70°C	±2.0 ppm

Phase Noise (typical)						
Offset Frequency (Hz)		50MHz-3GHz				
External Ref	0.05-3GHz	100Hz	1KHz	10KHz	100KHz	1MHz
		-75 dBc/Hz	-85 dBc/Hz	-100 dBc/Hz	-110dBc/Hz	-120 dBc/Hz
Return Loss (output)	0.05-3GHz	15dB				
Connectors	RF Output	SMA Female				
	Reference Input	SMA Female				

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.