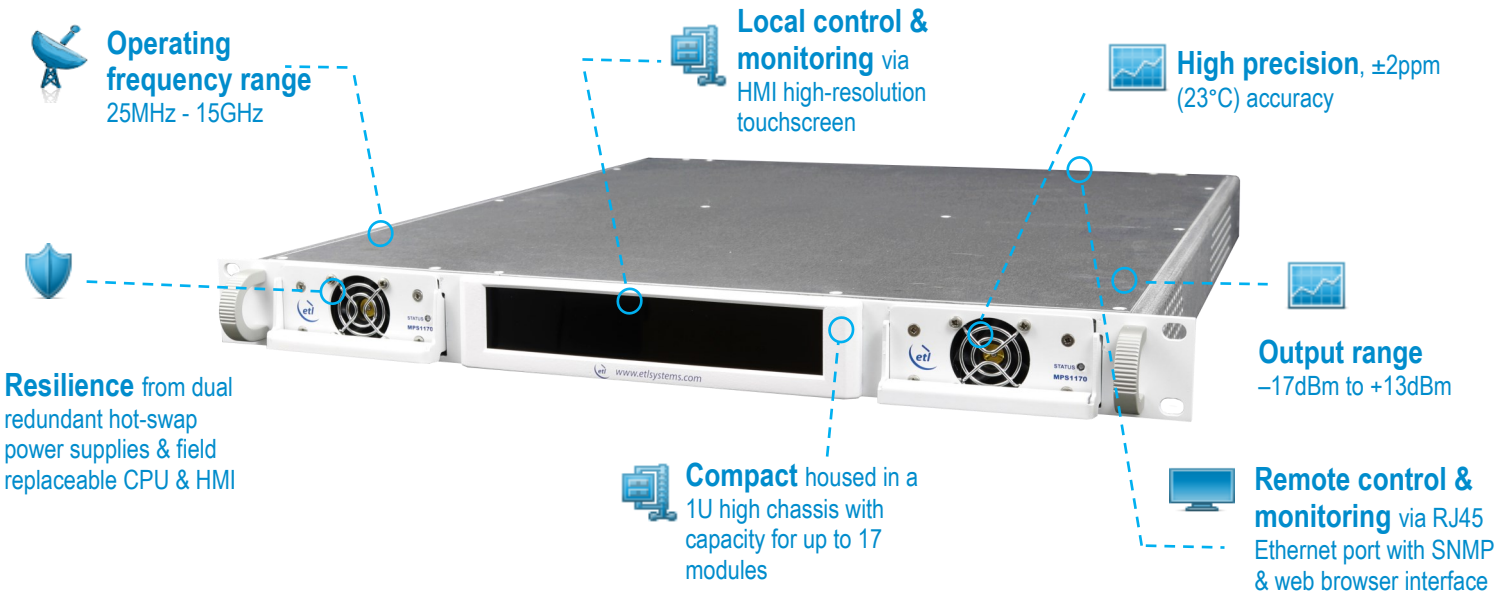
Atlantic Microwave
A Division of ETL Systems

SG-G1S-KX-03-S5

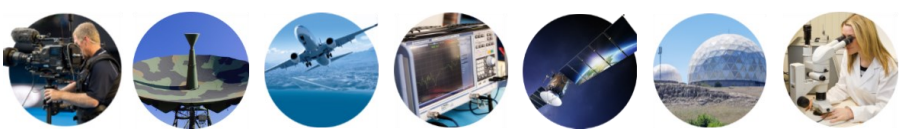
25MHz-15GHz Genus Signal Generator

SG-G1S-KX-03-S5 a Signal Generator Module operating over the frequency range of 25MHz-15GHz in 100Hz steps. The module utilises 4 slots in a Genus 1U Chassis or Instrumentation Benchtop Chassis offering flexibility in a compact and lightweight housing. Remote control & monitor via web browser interface or local control & monitor via HMI touchscreen if fitted.

- 25MHz – 15GHz Frequency Range
- Ideal for precision applications
- 100 Hz Frequency Steps
- Optional External Reference
- Compact 1U chassis
- Remote/Local Control



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 Diode OR. Hot swappable
Input & Output ports	Dependent upon module fitted



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Signal Generator Module - RF Parameters		
Frequency	Max	15 GHz
	Min	25 MHz
Frequency - Steps		100 Hz
Output Level	Max	+13 dBm (< 3 GHz) +6 dBm (3-6 GHz) 0 dBm (6-15 GHz)
	Min	-17 dBm
Output Level - Steps		0.5 ± 0.2 dB
Internal Reference Stability		± 50 x 10^{-9}
Spurs In-Band		<-60 dBm
Lock Time		< 50 ms
RF Connector		2.92mm (K) Female
Reference Input		10 MHz or 100 MHz
Harmonics	Typ.	-25 dBc
	Min	-20 dBc

Phase Noise (typical)					
Phase Noise		100Hz	1KHz	10KHz	100KHz
	At 1 GHz	-82 dBc/Hz	-92 dBc/Hz	-96 dBc/Hz	-106 dBc/Hz
	At 3 GHz	-75 dBc/Hz	-83dBc/Hz	-94 dBc/Hz	-101 dBc/Hz
	At 15 GHz	-70 dBc/Hz	-80 dBc/Hz	-85 dBc/Hz	-90 dBc/Hz

Interface		
Control Method	Via Chassis	
Number of Modules per chassis	4	4 slot wide module
Maximum Voltage Applied to the Output Connector	25V DC	Damage Level

Environmental conditions		
Operating Temperature	-20 to 50°C	
Storage Temperature	-40°C to +85°C	Equipment not powered.
Location	Indoor use only	
Humidity	20 to 90% non-condensing	Relative Humidity
Altitude	10,000ft/3000m AMSL	Above mean sea level
Altitude	30,000ft/10000m AMSL	Transport

Physical Dimensions & Parameters		
Dimensions	114 x 70 x 20mm	
Weight	0.35kg	TBC
Tech Spec Version	0.1	

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.