ETL Systems
New technologies
in RF distribution

Model Number: SWF-G2S-S6-123

S-band Active Redundancy Switch

SWF-G2S-S6-123-xxxx is a hot swap, redundancy switch operating over -5 to -55dBm mean power. The module incorporates RF detection at each of its input ports and switches over if the level differs by more than 2 to 30dB, customer settable. It can be used to operate with optical receivers from the StingRay Genus chassis series.

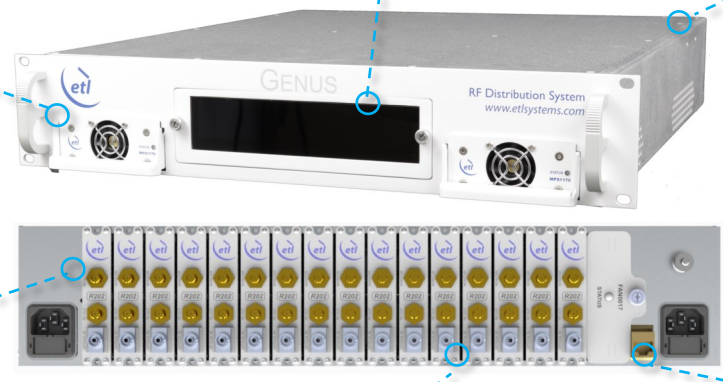
Typical applications:

- Ku-band and Ka-band ready for HTS applications
- Distribution of comms traffic across site with minimal loss
- General satcoms– teleports, video head-ends, TVRO
- Compact solution for small quantity links such as tactical HQ
- A resilient solution for satellite teleports with transition distances up to 10km

Local control & monitoring via HMI high resolution touchscreen

Resilience from dual redundant hot-swap power supplies & field replaceable CPU & HMI

Compact housed in a 2U high chassis with capacity for up to 17 modules



Hot Swap & replaceable modules

Field replaceable Internal 10MHz reference source and external reference inject port with auto detection (optional)

Remote control & monitoring via RJ45 Ethernet port with SNMP & web browser interface

Chassis - Specification	
Dimensions / Weight / Colour	2U high x 550mm deep x 19" wide / <10 kg / RAL9003—White (Semi-matte)
Capacity	Total of 17 module slots. Note that 1 slot may be used for fan (if required) and 1 slot may be used for 10 MHz EXT inject module (if required). Note actual modules may require >1 slot. Refer to required module spec table.
Temperature	Operating: 0˚C to +45˚C / Storage: -20˚C to +75˚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 / 150W
PSU Redundancy	Dual redundant and alarmed Diode OR. Hot swappable
Input & Output ports	Dependant upon module fitted

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Preliminary Technical Specifications and Operating Parameters

RF Parameters		
Model Number		SWF-G2S-S6-123
Frequency Range		500 to 3150 MHz (S-band)
Gain		0 dB ± 1.5 dB
Flatness	850-2150MHz	± 1.0 dB
	500-3150MHz	± 2.0 dB
	Any 36MHz	± 0.25 dB
Return Loss (All RF ports are DC blocked)	50 ohm SMA	18 dB typical, 12 dB minimum
	50 ohm BNC	18 dB typical, 10 dB minimum
	75 ohm BNC	16 dB typical, 8 dB minimum
	75 ohm F-type	16 dB typical, 8 dB minimum
Isolation		-40 dB (-10dBm tone across operational bandwidth unselected input to output)
1dB Gain Compression Point		+7 dBm minimum (output power)
OIP3		+18 dBm minimum
Noise Figure		12 dB maximum
Group Delay Variation		2ns over full band, 1ns over any 36MHz
RF Input Signal Range		-55 to –5 dBm (total power)
Max RF Input		16 dBm total power (Damage level, NOT operational)
Switching Threshold		2 dB to 30 dB Differential (Customer Settable)
Switching Delay		0 to 10 Seconds (Customer Settable)
Non RF Parameters		
Power Consumption		<3W
Module Swap		Hot Swap
Control, Monitoring & Alarms		
Temperature		Each module monitored
Monitoring Includes		Status of amplifier stage, RF input power, RF output power
Control		Local and Remote via parent chassis
Environmental Conditions		
Operating Temperature		-20°C to +60°C
Storage Temperature		-40°C to +90°C
Location		Indoor use (ODU options available)
Humidity		20 to 90% non-condensing
Altitude		10,000ft AMSL
Mass		0.4kg typical
Size		19mm Width x 87mm Height x 225mm Depth
Spec Issue		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.