



S-band Active Redundancy Switch

Unity gain, 500-3150MHz with
10MHz pass

Typical applications:

- Teleports & Earth Stations
- Satellite Operations
- Government & Defence applications
- Telemetry, Tracking & Command
- High Resilience applications

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.

Switch Module



Switch Module

Compact form factor allowing multiple modules to be housed in the Genus chassis. Each module occupies 1 slot in the chassis.



500 - 3150 MHz

operating frequency range



Hot Swap &

replaceable RF module



10MHz pass from common to multi ports



2x1 Redundancy Switch with unity gain

Chassis Options



Local control & monitoring via HMI high resolution touchscreen



Flexible Module Configurations choose from a mixture of switch modules with different operating frequencies.



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



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



Compact indoor & outdoor chassis options, which can be part populated



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



Secure protocols with SNMPv3



Indoor Chassis



Outdoor Unit



Preliminary Technical Specifications and Operating Parameters

RF Parameters		
Model Number	SWF-G2S-S6-123	
Frequency Range	500 to 3150 MHz (S-band)	
Gain	850-2150MHz	1 dB \pm 1.0 dB
	500-3150MHz	0 dB \pm 1.5 dB
Flatness	850-2150MHz	\pm 1.0 dB
	500-3150MHz	\pm 2.0 dB
	Any 36MHz	\pm 0.25 dB
Return Loss <small>(All RF ports are DC blocked)</small>	50 ohm SMA	18 dB typical, 12 dB minimum
	50 ohm BNC	18 dB typical, 10 dB minimum
	75 ohm BNC	13 dB typical, 10 dB minimum
	75 ohm F-type	13 dB typical, 10 dB minimum
Isolation	-40 dB (-10dBm tone across operational bandwidth unselected input to output)	
1dB Gain Compression Point	+6 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)	
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	1.1	

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.