



# 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	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	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.

