



S-band Latching Redundancy Switch

Low insertion loss, 500-3150MHz

Typical applications:

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

SWF-G2S-S6-118-xxxx is a hot swap, S-band latching redundancy (SPDT) switch operating over 500 to 3150MHz and -45 to -5dBm mean power. The module incorporates RF detection at each of its input ports and switches over if the level differs by more than 4 to 20dB, customer settable. In order to minimise switching operations the switch will maintain the new path if the first path is restored. The first path can be selected manually via the web interface if required. It can be used to operate with optical receivers from the StingRay Genus 2U or outdoor chassis.

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



RF Detect on common & multi ports



Latching Relay

2x1 Redundancy Switch

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 (Switch Module)		
Model Number	SWF-G2S-S6-118	
Capacity	2:1 (ElectroMech relay)	
Connector Type	SMA	
Impedance	50 Ohm (Reflective (open) port behaviour for un-switched path)	
Frequency Range	500 to 3150 MHz	
Insertion Loss	2 dB nominal @ 2 GHz 3 dB maximum	
Flatness	850-2150 MHz	± 1.0 dB
	500-3150 MHz	± 1.5 dB
Return Loss	12 dB minimum	
Isolation (path to path)	50 dB minimum	
Max RF Input	16 dBm total power (Damage level, NOT operational)	
Switchover Options : (Switchover operation user configurable)	Input comparison	Switching threshold 4 dB to 20 dB differential user settable.
	Active path level	Level detection range -45 to -5 dBm (total power) user settable.
	Manual	User control via web interface/ASCII protocol/local HMI
Switchover time	0 (15ms) to 10 seconds (User Settable)	
Switch life	10000000 Cycles minimum	
Switch action	Break before make	
Non RF Parameters		
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	-20°C to +75°C	
Location	Indoor use	
Humidity	20 to 90% non-condensing	
Altitude	10,000ft/3000m AMSL	
Mass	0.4kg	
Size	87mm Width x 19mm Height x 225mm Depth	
Spec Issue	1.0	

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.