




S-band Latching Redundancy Switch

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.

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

Image for indication purposes only, actual modules and configuration may differ

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





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.

