

# 10 MHz Active Redundancy Switch With Unity Gain

SWF-G2S-Y-124-xxxxxx is a hot swap, redundancy switch operating over  $-10$  to  $+10$ dBm 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 10dB, 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.

10 MHz  
operating frequency

Hot Swap & Replaceable  
RF module

2x1 Redundancy Switch  
with unity gain

## Chassis Options

**Local control & monitoring**  
via HMI high resolution touchscreen

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

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

**Secure protocols**  
with SNMPv3 and HTTPS

**Flexible Module Configurations**  
choose from a mixture of up and down converters with different operating frequencies.

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

**Field replaceable internal reference source**  
and external reference inject port with auto detection (optional)



Indoor Chassis



Outdoor Unit



RF Parameters	
Model Numbers	SWF-G2S-Y-124-S5S5
Frequency Range	10MHz
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 (All RF ports are DC blocked)	50 ohm SMA: 21 dB typical, 18 dB minimum
Isolation	60 dB minimum (0dBm tone across operational bandwidth unselected input to output)
1dB Gain Compression Point	+12 dBm minimum (output power)
OIP3	+18dBm (+15dBm for 75 Ohm)
Noise Figure	18dB typical, 20 dB maximum
RF Signal Range	Output: -70dBm to -10dBm (total power) o/p range available under all i/p conditions. (Note that all Specifications are only 'typical' between -60 & -70dBm unless otherwise detailed).
RF Input Signal Range	-55 to -5 dBm (total power) operational i/p range
Max RF Input	16 dBm total power (Damage level, NOT operational)
Switching Threshold	2 dB to 10 dB Differential (Customer Settable)
Switching Delay	0 to 10 Seconds (Customer Settable)
DC Pass	DC Blocked
Phase Noise	1 Hz: <-128dBc/Hz    10 Hz: <-141dBc/Hz    100 Hz: <-152dBc/Hz 1 kHz: <-159dBc/Hz    10 kHz: <-162dBc/Hz    100 kHz: <-163dBc/Hz    1 MHz: <-163dBc/Hz
Environmental	
Temperature	Operating: -20°C to +60°C    Storage: -40°C to +90°C
Location	Indoor use within parent GENUS chassis (ODU options available)
Humidity	20 to 90% non-condensing
Altitude	10,000ft AMSL
Physical Dimensions & Parameters	
Weight	0.4kg typical
Dimensions	19mm Width x 87mm Height x 225mm Depth
Power Consumption	<3W
Module Swap	Hot Swap

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.

Note 3: All specs are for 50 Ohm connectors unless detailed otherwise.