

# Swift Series DC-40 GHz 2+1 Redundancy Switch Module for Frequency Converters

The swift switch 2+1 redundancy module is for use in the 1U Genus chassis, specifically for Falcon frequency converter configurations. In 2+1 redundancy configuration, the chassis has capacity for up to three hot-swap frequency converter modules and 1 redundancy switch module.

## Chassis

**Hot swap & replaceable** RF Frequency Converter & redundancy switch modules

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

**Flexible module configurations** including interchangeable frequency range options. User selectable via HMI or web browser

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

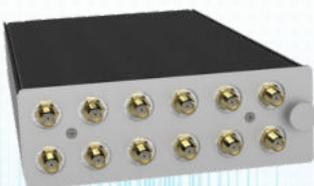
**Local control & monitoring** via HMI high resolution touchscreen

**Redundancy configurations** 2+1 redundant configuration

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

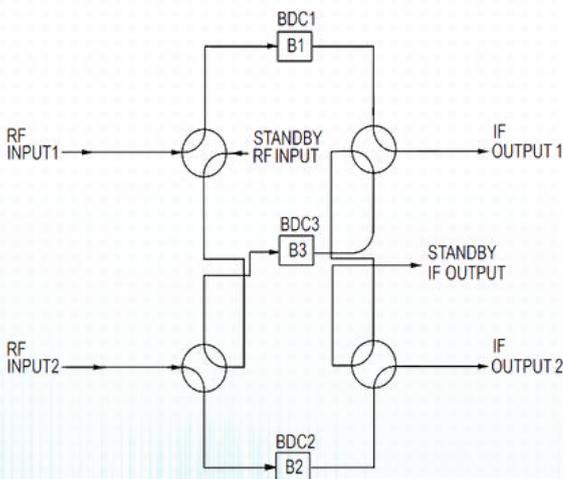
**Compact** housed in a 1U high chassis with capacity for 1 redundancy switch and 3 converter modules

**Swift Redundancy Switch Module**  
Compact form factor allowing multiple modules to be housed in 1U chassis. Each module uses 4 slots in the chassis.



RF Parameters	
Model Numbers	SWF-G1S-QX-116
Size	4 slots wide.
Redundancy	2+1
Frequency Range	Input / Output: DC to 40 GHz Output / Input: DC to 6 GHz
Insertion Loss (40 GHz Path) (Excludes all linking cables external from the module)	≤ 2.5 GHz: ≤ 2.0 dB ≤ 12.75 GHz: ≤ 2.5 dB ≤ 31.0 GHz: ≤ 3.5 dB
Insertion Loss (6 GHz Path) (Excludes all linking cables external from the module)	≤ 2.5 GHz: ≤ 2.5 dB ≤ 6 GHz: ≤ 3.0 dB
Insertion Loss Variation (Max) (Between input paths or output paths)	± 0.50 dB
Gain Flatness (Input/Output Path)	0.85—2.15 GHz: ± 0.75 dB 10.70—12.75 GHz: ± 1.0 dB 29.25 –31.00 GHz: ± 1.5 dB
Return Loss (Input/Output Path)	0.85—2.15 GHz: -18 dB 10.70—12.75 GHz: -14 dB 29.25 –31.00 GHz: - 12 dB
Isolation (path to path)	55 dB min
Input Power Range	≤ +35 dBm
Spurs In-band	Non-carrier related: < -85 dBm. In 1 kHz Bandwidth
Environmental	
Temperature	Operating: 0 to 45°C    Storage: -20°C to +75°C
Location	Indoor use only, within parent GENUS chassis
Humidity	20 to 90% non-condensing
Altitude	10,000ft / 3000m AMSL

## 2+1 Redundancy Configuration



Specs are for standalone modules. There may be slight variation when used for frequency converter redundancy configurations.

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.