ETL Systems
New technologies
in RF distribution

Model Number:
SWF-G1S-K1-213

Swift Series DC– 18 GHz SP6T Switch Module

Bidirectional 6x1 or 1x6 switch

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

The swift switch SP6T RF coax switch covers DC to 18GHz, occupying 2 slots for use in a 1U chassis, ODU chassis or 4&8 slot bench chassis. The switch is bidirectional so can be used as either a 6x1 or 1x6 switch. The switch has Reflective (open) port behaviour when not switched. Other modules types are also available, these can be mixed and housed in the Genus range of chassis.

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

Local control & monitoring via HMI high resolution touchscreen

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

Compact form factor allowing multiple modules to be housed in 1U chassis. Each module SWF-G1S-K1 -213 uses 2 chassis slots.

Flexible Module Configurations including interchangeable frequency range options. User selectable via HMI or web browser

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

Hot Swap & replaceable RF modules and other active components

Chassis - Specification	
Dimensions / Weight / Colour	1U 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

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Preliminary Specifications

Swift Redundancy Switch Module - RF Parameters				
Model Number	SWF-G1S-K1-213			
Capacity	1x6 (SP6T) or 6x1			
Impedance	50 ohms (Reflective (open) port behaviour when not switched)			
Switchover time	10ms (Max)			
Switch Life	10 000 000 Cycles (Min)			
Connector Type	SMA			
Frequency bands	DC-3 GHz	3-8 GHz	8-12.4 GHz	12.4-18 GHz
Insertion loss	0.2dB (Max)	0.3dB (Max)	0.4dB (Max)	0.5dB (Max)
Return loss	20dB (Min)	17 dB (Min)	15 dB (Min)	13 dB (Min)
Isolation (path to path)	80dB (Min)	70 dB (Min)	60 dB (Min)	60 dB (Min)
Maximum RF input power (Maximum average through switched path. Assuming worst case load VSWR of 2.)	180W	95W	80W	65W
Environmental conditions				
Operating temperature	0 to 50°C			
Storage temperature	- 20°C to +75°C			
Location	Indoor use only			
Humidity	20 to 90% non-condensing			
Altitude	10,000ft/3000m AMSL			
Physical dimensions & parameters				
Dimensions	250mm x 42mm x 42mm			
Weight	TBC			
Module finish	Unpainted aluminium			
Spec Version	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.

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