



Model Number: 23218-xxxx

RF Engineering
and Custom Build

Dual 2 x 1 SHF Switch

With Local and Remote Control (via RS232/485 and RJ45 Ports)



This SHF switch operates over the DC to 18 GHz frequency range. The unit can be locally controlled via front panel illuminated push buttons or remotely via an RJ45 Ethernet port on the rear panel.

Front View of Model 23218

The switch incorporates two separate coaxial relay multi-switches. These are self latching so the RF paths are maintained even with total power loss.

The switch is powered from dual redundant power supplies. The controller reports any switch failure back to the M & C system via RS232/485 serial or RJ45 ethernet ports and has dry contact alarms for PSU failure.



Rear View of Model 23218

This particular unit has 50 ohm N-type connectors but a range of impedances and connectors are available (model numbers will vary).





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RJ45 Ethernet Port)

Technical specifications and operating parameters

RF Parameters

Capacity	Dual 2x1 (or Dual 1x2)				
Input & output connectors	50Ω SMA or N-type	All ports are DC pass			
Frequency Range	DC to 18 GHz				
Frequency (GHz)	0-3	3-8	8-12.4	12.4-18	
Insertion Loss (dB)	0.5 ± 0.5	0.75 ± 0.5	1 ± 0.5	1.4 ± 0.5	
Gain Flatness	DC-18GHz	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB
	Any 80MHz	± 0.2 dB	± 0.2 dB	± 0.2 dB	± 0.2 dB
Input return loss	Typical	20 dB	18 dB	16 dB	16 dB
	Minimum	18 dB	16 dB	14 dB	12 dB
Output return loss	Typical	20 dB	18 dB	16 dB	16 dB
	Minimum	18 dB	16 dB	14 dB	12 dB
Isolation	60 dB	Max. Between any two output ports			

Power

AC Power	85-264Vac 50/60Hz	Fused 2A
AC Consumption	30 W	Max. Consumption at steady state
LNB Power	None	
PSU	Dual redundant	Diode OR
Hot-swap PSU	No	
Input RF Power	30 dBm	Absolute maximum

Environmental

Operating temperature	0 to 50°C
Location	Indoor use only
Storage temperature	-50°C to +70°C
Humidity	20 to 95% non-condensing

System Control

Remote control & Monitoring	Serial (RS232 or RS422/485) and Ethernet (RJ45) on rear panel.
Alarms	Dry contact (D-type) & Ethernet (RJ45). PSU and Amp status.

Physical

Dimensions	1U high x 350mm deep x 19" wide
Weight	5 kg
Colour	White 00-E-55 semi-gloss

Key Features

Housed in a compact 1U high chassis
Local & remote control
Variable gain
Dual redundant power supplies

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