



Model Number: 23116-N5N5

RF Engineering  
and Custom Build

# 2 x 1 L-band Redundancy Switch

With Local & Remote Control (via RS232/RS485 or RJ45 ports)



This ETL 2 x 1 L-band redundancy switch incorporates an RF detection system and automatic switching of one of two inputs to the output. The system monitors the Main and Standby signals.

Front View of Model 23116-N5N5

In Auto mode, it switches from Main to Standby feed in the event of the failure of the Main feed, if a Standby feed is present. The switch also monitors the Standby feed, and if this fails it will switch back to the Main feed if present. In Manual mode it is switched from the front panel. Remote selection of manual and auto mode and remote switching from Main to Standby and vice versa is also possible. A contact-driven remote mode is also provided.



Rear View of Model 23116 with 50 ohm BNC connectors

The unit also benefits from dual redundant power supplies which are monitored via front panel LEDs and a dry contact alarm port on the rear panel.

This particular unit has 50 ohm N-type connectors but others are available (model number will vary).





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2 x 1 L-band Redundancy Switch with Local & Remote  
Control (via RS232/RS485 or RJ45 ports)

## Technical specifications and operating parameters

RF Parameters		
Capacity	2 x 1	
Frequency Range	850-2150 MHz (L-band)	
Gain	0 dB $\pm$ 1 dB nominal, mean	
Flatness	$\pm$ 1 dB typical	
Isolation	I/P-O/P	65 dB typical
	I/P-I/P	65 dB typical
1 dB Compression	0 dBm, +5 dBm typical, 0 dBm min.	
Noise Figure	8 dB	
Input Return Loss	15 dB typical (8.5 dB min)	
Output Return Loss	15 dB typical (8.5 dB min)	
Operational Range*	-60 dBm to -10 dBm	50 dB dynamic range. Limits may be set
Automatic Switching Time	200 ms typical from detection of	

\* Power level detection accuracy is typically  $\pm$  1 dB across the mid range and  $\pm$  2.5 dB at the extreme ends of the range. This could result in differing power levels reported by the unit.

System Control	
Remote Control	Via RJ45 Ethernet port or
Local Control	Via front panel push buttons
Display	Front panel LED's indicating operational mode and power
Alarms	Dry contact alarm port on rear

Power	
AC Power	85-264V AC (50/60Hz) Fused 2A
LNB Power	None
PSU	Dual redundant
Hot-swap PSU	No

Environmental	
Operating temperature	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	85% non-condensing

Physical	
Input Connector	N-type
Input Impedance	50 $\Omega$
Output Connector	N-type
Output Impedance	50 $\Omega$
Dimensions	1U high x 350mm deep x 19" wide
Weight	3 kg
Colour	White 00-E-55 semi-gloss

Key Features	
Three operational modes	
RF detection on main and standby feeds	
Auto switchover in case of signal failure	
Local and remote control	
Dual redundant power supplies	

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