AZ270
1+1 Frequency Converter Redundancy Switch
Azimuth Product Family

AZIMUTH SERIES

Description

The AZ270 1+1 Frequency Converter Redundancy Switch product provides a versatile 1+1 protection scheme for upconverters, downconverters and combiners. The AZ270 is easy to operate and switches simultaneously the input and output IF, L-band and RF-band signals.

The switching between the main frequency converter and the redundant frequency converter can be done automatically through alarm contacts, manually through the front panel or the dedicated web interface, or remotely via a monitoring and control system.

When the automatic mode is activated, the AZ270 monitors the alarm contacts of the two frequency converters through cable connections. When an alarm is detected, the input and output switches are toggled, effectively rerouting the input and output signals to the redundant frequency converter. The fast switching ensures a minimal service interruption.

In its default configuration, the AZ270 switches an output IF (50 ohms) signal. A wide range of input and output switching options makes the AZ270 compatible with almost any radio frequency signal used in satellite communications. The range of options includes DC, 10 MHz, IF, L-band and RF-band switches.

The AZ270 is easy to operate and monitor. All control and monitoring parameters are available locally on the front panel and remotely through a web interface. It is also possible to control or monitor the AZ270 via RMCP or SNMP.

Key features

- Dual redundant power supply
- Automatic or manual operational mode
- Suitable for any frequency converter or combiner with alarm contacts
- Switching of IF, L-band or RF-band inputs/outputs
- Stand alone operation or integrated in a network management system

Main advantages

- Increases service availability significantly
- Compatible with any converter and combiner that has alarm contacts
- High reliability
- High compactness
- Easy to operate

Applications

- Satellite broadcast contribution/distribution
- IP trunking / Corporate networks
- Any up or downlink facility

Related products

AZ710 Upconverter
AZ720 Downconverter
AZ730 Up & Down Converter
AZ740 Indoor L-band Block Upconverter
AZ750 Combiner

AZ200 Universal Switching system
AZ210 1+1 Modulator redundancy Switch
AZ290 1+1 Demodulator redundancy Switch

Related Documents

Care Pack Brochure

Newtec

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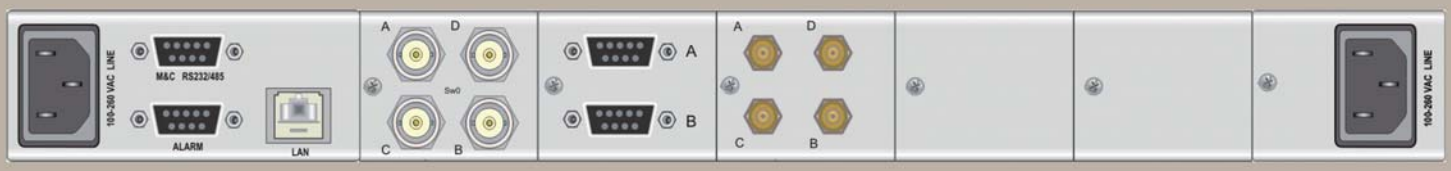
Specifications – AZ270(R7)



Backpanel config: IF input switching, RF output switching

Input and output switching Interface

IF (50 ohms, DC – 270 MHz)

- Connectors: BNC (F) - 50 ohms
- Frequency: DC - 270 MHz
- Insertion loss: < 2 dB
- Isolation: > 50 dB (300 MHz)

IF (75 ohms, DC - 270 MHz)

- Connectors: BNC (F) - 75 ohms
- Frequency: DC - 270 MHz
- Insertion loss: < 2 dB
- Isolation: > 50 dB (300 MHz)

L-band (50 ohms, DC-2.5 GHz)

- Connectors: BNC (F) - 50 ohms
- Frequency: DC - 2.5 GHz
- Return loss: > 18 dB
- Insertion loss: < 0.5 dB
- Isolation: > 75 dB

L-band (75 ohms, DC – 2.5 GHz)

- Connectors: BNC (F) – 75 ohms
- Frequency: DC – 2.5 GHz
- Return loss: > 18 dB
- Insertion loss: < 0.5 dB
- Isolation: > 75 dB

L-band (50 ohms, DC-1.8 GHz)

- Connectors: SMA - 50 ohms
- Frequency: DC - 1.8 GHz
- Return loss: > 15 dB
- Insertion loss: < 2 dB
- Isolation: > 50 dB

L-band (50 ohms, DC – 18 GHz)

- Connectors: SMA (F) - 50 Ohms
- Frequency: DC - 18 GHz
- Return loss: > 18 dB (L band) >13 dB (RF)
- Insertion loss: < 0.5 dB
- Isolation: > 75 dB (L band) >60 dB (RF)

Generic

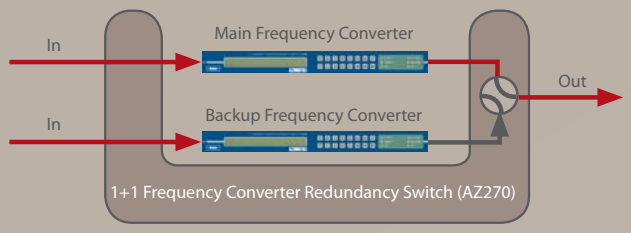
Monitor and control interfaces

- Web based GUI
- Diagnostics report, alarm log
- RMCP over TCP-IP/UDP and RS232/RS485
- SNMP v2c

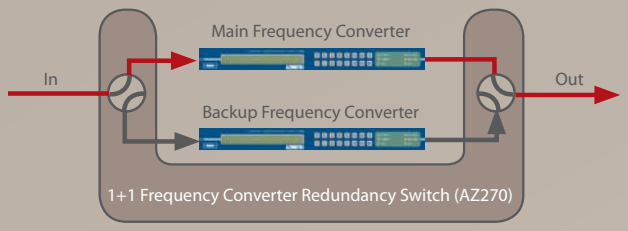
Physical

- 1RU, width: 19", depth 51 cm, 6 kg
- Dual Power supply: 100 - 240 VAC, 105 VA, 47-63 Hz
- Temperature
  - Operational: 0°C to 37°C
  - Storage: -40 to +70°C
- Humidity: 5% to 85% non-condensing
- CE label, UL label

Configurations



No input switching – Cross-over output switching



Cross-over input switching – Cross-over output switching

Ordering information

AZ 270 1+1 Frequency Converter Redundancy Switch		Order n°
1+1 Frequency Converter Redundancy Switch, SNMP Input interface switch : No input switching Output interface switch: IF, BNC, 50 ohms		AZ270
Configuration options Category	Max. 1 option per category	
Input interface	No input switching	Default
	IF, BNC, 50 ohms, DC - 270 MHz	DE-01
	IF, BNC, 75 ohms, DC - 270 MHz	DE-02
	L-band, SMA, 50 ohms, DC - 1.8 GHz *	DE-06
	L-band, BNC, 50 ohms, DC - 2.5 GHz	DE-03
	L-band, BNC, 75 ohms, DC - 2.5 GHz	DE-04
	L-band+RF, SMA, 50 ohms, DC - 18 GHz	DE-05
Output interface	IF, BNC, 50 ohms, DC - 270 MHz	Default
	IF, BNC, 75 ohms, DC - 270 MHz	DF-02
	L-band, SMA, 50 ohms, DC - 1.8 GHz *	DF-06
	L-band, BNC, 50 ohms, DC - 2.5 GHz	DF-03
	L-band, BNC, 75 ohms, DC - 2.5 GHz	DF-04
	L-band+RF, SMA, 50 ohms, DC - 18 GHz	DF-05
Services Category		
Assistance	Care Pack Basic	GA-06
	Care Pack Extended	GA-07

* Toggle Switch

Other configurations such as N+1 protection schemes,
optical splitters are available with the Newtec AZ200 Universal Switching System.

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