

# AZ290

## 1+1 Demodulator Redundancy Switch

### Azimuth Product Family

# AZIMUTH SERIES

#### Description

The AZ290 1+1 Demodulator Redundancy Switch product provides a versatile 1 + 1 protection scheme for satellite demodulators. The AZ290 is easy to operate and switches simultaneously the input IF/L-band signals and output data signals.

The switching between the main demodulator and the redundant demodulator 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 AZ290 monitors the alarm contacts of the two demodulators 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 demodulator. The fast switching ensures a minimal service interruption.

In its default configuration, the AZ290 only switches an output ASI or G703 (75 ohms) signal. A wide range of input and output switching options makes the AZ290 compatible with almost any signal used in satellite communications. The range of options includes IF and L-band input switches or splitters as well as ASI, optical, G.703, SDH and HSSI output switches.

The AZ290 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 AZ290 via RMCP or SNMP.

#### Key features

- Dual redundant power supply
- Automatic or manual operational mode
- Suitable for any demodulator with alarm contacts
- Switching of IF or L-band inputs
- Switching of ASI, G.703, SDH or HSSI outputs
- DC-pass splitter for direct connection to LNB ( optional)
- Stand alone operation or integrated in a network management system

#### Main advantages

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

#### Applications

- Broadcast satellite contribution
- Primary distribution
- Any downlink facility

#### Related products

AZ910 DSNG & Contribution Satellite Demodulator  
AZ920 Telco Satellite Demodulator  
AZ928 High Speed Telco Satellite Demodulator  
AZ930 WAN Satellite Demodulator

AZ200 Universal Switching system  
AZ210 1+1 Modulator redundancy Switch  
AZ270 1+1 Frequency redundancy Switch

#### Related Documents

Care Pack Brochure

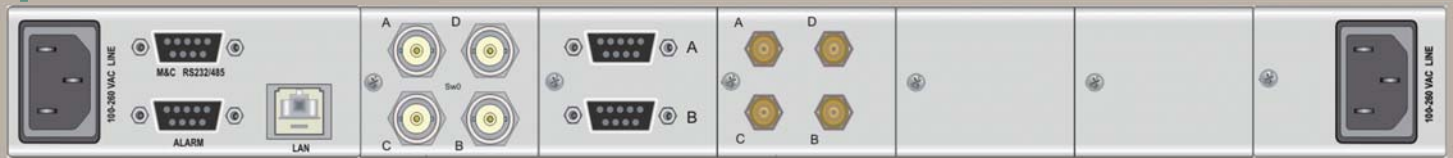


SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS

[www.newtec.eu](http://www.newtec.eu)

R3/11.2009

# Specifications – AZ290(R6)



Backpanel config: RF input switching, ASI output switching

## Input Interface Splitter

### IF splitter

- Connector (in, out) BNC (F) - 75 ohms
- Frequency 40 – 1000 MHz
- Insertion loss < 5dB
- Isolation > 15dB

### L-band Splitter

- Connector (in ,out) F (F) – 75 ohms
- Frequency 950 – 2150 MHz
- Insertion loss < 6dB
- Isolation > 15dB

## Input Interface Switch

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

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

### 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

### 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)

## Output interface switch

### ASI/G.703

- Connectors 4 x BNC (F) - 75 ohms
- Frequency DC - 270 MHz
- Insertion loss < 2 dB
- Isolation > 50 dB ( 300 MHz)

### Optical, SC, single mode

- Connector 2 x duplex SC receptacles
- Minimum input power -30dBm
- Minimum output power -15dBm
- Wavelength 1300 nm
- Compliance SONET OC3 & SDH STM1 (S1.1)

### Optical, SC, multi mode

- Connector 2 duplex SC receptacles
- Minimum input power -30dBm
- Minimum output power -23.5dBm
- Wavelength 1300 nm
- Compliance ATM Forum UNI SONET OC-3 Multimode Fiber Physical layer specification

### HSSI (optional)

- Connectors 25 pin sub-D (F)
- Frequency DC - 52 MHz
- Isolation > 30 dB (balanced)

## Generic

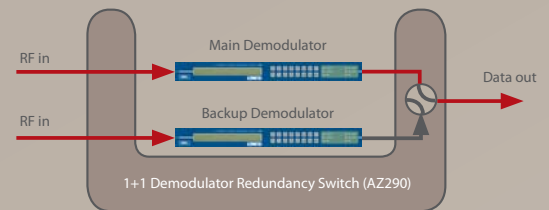
### Monitor and control interfaces ( via the main unit)

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

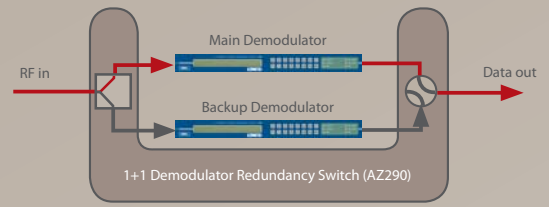
## Physical

- 1RU, width: 19", depth 51 cm, 6 kg
- Dual Power supply: 100 - 240VAC, 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

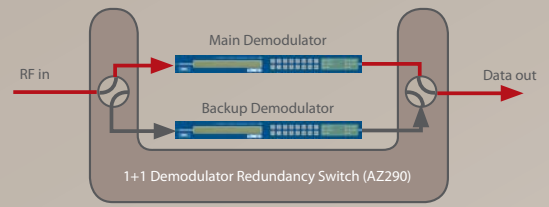
## Configurations



No input switching – Cross-over output switching



Input splitter – Cross-over output switching



Cross-over input switching – Cross-over output switching

## Ordering information

AZ290 1+1 Demodulator Redundancy Switch		Order n°
1+1 Demodulator Redundancy Switch, SNMP Input interface switch : No input switching Output interface switch: ASI / G.703, BNC 75 ohms, DC - 270 MHz		AZ290
Configuration options		
Category	Max. 1 option per category	
Input interface switch	No input switching	Default
	IF splitter, 75 ohms, BNC	DC-05
	L-band splitter, 75 ohms, F-type	DC-06
	L-band, BNC, 50 ohms, DC- 2.5 GHz	DC-01
	L-band, BNC, 75 ohms, DC-2.5 GHz	DC-02
	IF, BNC, 50 ohms, DC - 270 MHz	DC-03
	IF, BNC, 75 ohms, DC - 270 MHz	DC-04
Output interface switch	ASI / G.703, BNC 75 ohms	Default
	Optical, SC, single mode fibre	DD-02
	Optical, SC, multi mode fibre	DD-03
	HSSI, 25-pin sub-D	DD-04
Services		
Category		
Assistance	Care Pack Basic	GA-06
	Care Pack Extended	GA-07

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

Contact your sales representative for details (sales@newtec.eu)

### Europe

Tel: +32 3 780 65 00  
Fax: +32 3 780 65 49

### North-America

Tel: +1 203 323-0042  
Fax: +1 203 323-8406

### South-America

Tel: +55 11 2092 6220  
Fax: +55 11 2093 3756

### Asia-Pacific

Tel: +65 6777 22 08  
Fax: +65 6777 08 87

### China

Tel: +86 10-823 18 730  
Fax: +86 10-823 18 731

### MENA

Tel: +971 4 390 18 78  
Fax: +971 4 368 67 68