

## VB273

### DVB-S/S2 INTELLIGENT REDUNDANCY SWITCH

The VB273 Intelligent Redundancy Switch provides full dual path redundancy for satellite signals with autonomous operation and deep signal analysis on both signal paths for the ultimate switching decision making. The solution is ideal for providing fast and robust redundancy switching for permanently installed satellite up-links or in outside broadcast systems. Front panel controls with illuminated buttons offer local override control and a clear visual indication of the active switching path. The redundancy switch offers three distinct modes of operation – automatic, manual and superlocal – making it suitable for any real-life operational challenges.



### Technologies

Bridge Technologies options are designed to enhance the overall ability and performance of accurate monitoring in the broadcast environment

Click below to learn more about compatible technology options:

[Eii™](#) [ETR290™](#)

### Environmental

[Euroenvironment](#) [RoHS](#) [WEEE](#)

### Chassis Options

[ACC](#) [DCC](#) [EC](#) [EC-DC](#)

## Overview

The VB273 has multiple layers of redundancy. The 1RU chassis offers dual redundant power supplies and the VB273 switching card has magnetically latching relays to protect against signal disruption, even during a complete loss of power.

The VB273 switch module actively taps off a small portion of the input signal from both inputs, converts it to L-band if required, amplifies it and then feeds it to the neighbouring VB272 DVB-S/S2 input module via two factory-fitted loop cables. This allows monitoring and analysis to take place on both inputs simultaneously.

If any problem in any parameter is detected, pre-set rules apply and the unit will check the opposite input for the same failure and perform a switch if no failure is detected.

To avoid switch flapping, a minimum switchback time can optionally be configured. All the parameters in the implementation of the TS 101 290 specification can be utilised as switching criteria.

In automatic mode, the VB273 system is fully independent and makes its own switching decisions based on the pre-set switching rules. In manual mode, the unit can be controlled from any overlying NMS system via the extensive XML-based Eii (External Integration Interface) or via SNMP triggers.

The VB273 also features a unique superlocal mode feature to deliberately cut off overlying NMS control for emergency manual override situations via the front button panel. All parameters can be controlled via the built-in web GUI. The web GUI also gives a visual overview of parameters used in switch decisions and system status.

The hardware is custom designed and built to telco-grade standards for maximum reliability and minimum maintenance. The complete redundancy solution consumes less than 25W of power. This substantially reduces power consumption and air conditioning needs in installations.

## Tech Features

### VB273 SATELLITE UPLINK REDUNDANCY SOLUTION IF and L-BAND

- 2:1 redundancy switching functionality based on built-in monitoring of incoming satellite signals
- Monitoring feature set of VB120 included making this a switch and a probe combined into one
- Supports 70/140MHz IF (VB273) and 950-2150MHz L-band (VB273-LBAND)
- IF signal inputs: 75 ohm female BNC
- IF signal output: 75 ohm female BNC
- L-BAND signal inputs: 50 ohm female SMA
- L-BAND signal output: 50 ohm female SMA
- Three-stage button logic supporting 3 distinct modes: Manual, Auto, Super Local
- Robust bistable RF relays ensures state is preserved even in the event of a power loss
- Passive loop through so that signal is passed even if no power on unit
- Capable of receiving DVB-S/S2 QPSK, DVB-S2 8PSK, DVB-S2 16APSK, DVB-S2 32APSK
- Continuously monitor and switch on all TR 101 290 priority 1, 2 and 3 parameters (except Buffer Fill)
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- Independent alarm template and redundancy switching template to allow a parameter to be alarmed on while at the same time not resulting in a redundancy switch
- Filtering capabilities on switching criteria to prevent short glitches to trigger a redundancy switch
- Continuously monitor and switch on RF parameters:
  - Channel power RF level
  - Modulation Error Rate (MER) in dB
  - Signal to Noise Rate (SNR) in dB
  - Error Vector Magnitude (EVM) in% and in dB
  - BER pre Viterbi (for DVB-S)
  - BER post Viterbi (for DVB-S)
  - BER post LDPC-BCH (for DVB-S2)
  - RS Packet Error Count
  - Carrier frequency offset
  - Symbol rate offset
- PID analysis, Service analysis, bandwidth overview, PSI/SI/PSIP table analysis

- Automatic or manual TS recording of up to 200MB for recording fault that triggered redundancy switch
- Thumbnail extraction with audio bars and meta data
- Configurable alarm severity level
- PSIP support (ATSCA/78)
- Exportable logs
- Management port: 10/100/1000-T
- Video ports for RDP relay: 10/100/1000-T and SFP
- Condensed mosaic thumbnail view of all services monitored

## Software Options

### VB272-SMA-OPTION

A complete configuration with a fully licensed VB120 and two VB272 interface cards provides real-time monitoring and alarming for up to four DVB-S/S2 RF inputs, 10 IP MPTS/SPTS multicasts (upgradable to 50 streams) and one ASI TS input and output. Full ETSI TR 101 290 analysis is performed on all DVB-S/S2 inputs, the ASI input and the IP input in parallel. If the VB220 PROBE is used as master card the IP monitoring capacity is increased to impressive 260 MPTS/SPTS multicasts. The VB272 DVB-S/S2 card is delivered with one input and the second input can be enabled by a simple license upgrade.

Learn more:

## Ordering Codes

VB273-SAT-SWITCH – Satellite Redundancy Switch System – EC/VB120/VB272-SMA/VB272-RF-OPT/VB273/SWITCH-OPT

VB272-SMA – DVB-S/S2 Demodulator Interface Blade single RF input. 50 ohm SMA connector model

## Documentation

[User Manual – Download](#)

[Quick Start Guide – Download](#)

## Related Products



**VB120**

IP MONITOR PROBE



**VB272**

DVB-S/S2 SATELLITE INPUT  
MODULE