

NovelSat NSR9100 N+1 Redundancy Switch

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NovelSat **NSR9100/NSR9800** N+1 Redundancy Switch Series

The NovelSat N+1 Redundancy Switch solution enables hot standby redundancy for up to 8 NovelSat modulators, demodulators or modems. The N+1 switch supports RF switching as well as terrestrial interfaces switching.

The redundancy switching system monitors the 'health' of the protected units and, in case of an alarm, copies the failed unit's configuration to the redundant unit and automatically replaces the faulty unit's functions with the spare (+1) unit.

The redundancy switch can support from 1+1 configuration using the NSR9100 1U chassis and up to 8 + 1 with a single NSR9800 3U chassis (up to 3 supported ports).

Key Features

- Supports switching of modulator, demodulator and modem
- Support from 1+1 up to 8+1 units
- · Automatic or manual backup switching mechanism
- Automatic or manual unit recovery
- Automatic or manual configuration file transfer and recovery
- Full redundancy of all ports (RF and terrestrial)
- · Alarm status front panel indications
- Dual Power Supply (110/220v AC or -48v DC)
- Management & Control via Web GUI, CLI, SNMP and front panel
- · All protected TX ports include power monitoring
- Extractable switching cards
- Supports additional expansion units
- Optional telecom switching cards (E1, E3)

NSR9100 vs NSR9800 Configuration Support

Both the NovelSat NSR9100 and NSR9800 redundancy switch are designed for flexibility, enabling various configurations depending on which ports (interfaces) require coverage (L band TX, L band RX, IF band, ASI, GbE, TSoIP).

NSR9100 (1U chassis) Supported Configurations

		Backup Interfaces		
Product	Redundancy Configuration	ASI 1	ASI 2	GbE
NS1000 Modulator	1:1	Full support for any interface combination		
NS1000 Modulator	Up to 4:1	Any one of three Interfaces		
NS2000 Demodulator	1:1	Full support for any interface combination		
NS2000 Demodulator	Up to 4:1	Any one of three Interfaces		
NS3000/ NS300X	1:1	Any two out of three Interfaces		

NSR9800 (3U chassis) Supported Configurations

		Backup Interfaces		
Product	Redundancy Configuration	ASI 1	ASI 2	GbE
NS1000 Modulator	Up to 8:1	Full support for any interface combination		
NS2000 Demodu- lator	Up to 8:1	Full support for any interface combination		
NS3000/ NS300X	Up to 4:1	Full support for any interface combination		
NS3000/ NS300X	Up to 8:1*	Any one of three Interfaces		

^{*}More than one interface requires an additional NS9100 or NS9800 unit.

Two NSR9x00 Redundancy Units can be cascaded to expand support for additional (more than 8) components – Modulators, Demodulators, and Modems.

NovelSat NSR9100/NSR9800 Specifications

L band frequency range 950-2400MHz
IF band range 50-180MHz
Input power Up to +20dBm
Power monitoring Down to -35dBm
DC path through Standard up to 18V/1A

1:1 card L band TX port up to 48V/4A (BUC feeding support)

Dimensions (mm)1U: H: 43, W: 439 L: 440
3U: H: 130, W: 439 L: 317

Certification CB, TUV, CE

Unit LEDs

PS1, PS2 Power supply status indications

Alarm
Auto
General unit alarm
Unit operating in automatic mode
Unit is operating in manual mode
Remote
Alarm R to 8
General unit alarm
Unit is operating in manual mode
Unit is controlled from remote
Operational units alarm status

Green no alarm Red reporting alarm Off — not connected erational units protection stat

Protected R to 8 Operational units protection status

Green — can be protected Red — not protected

Orange — is replaced by redundant unit

Off - masked