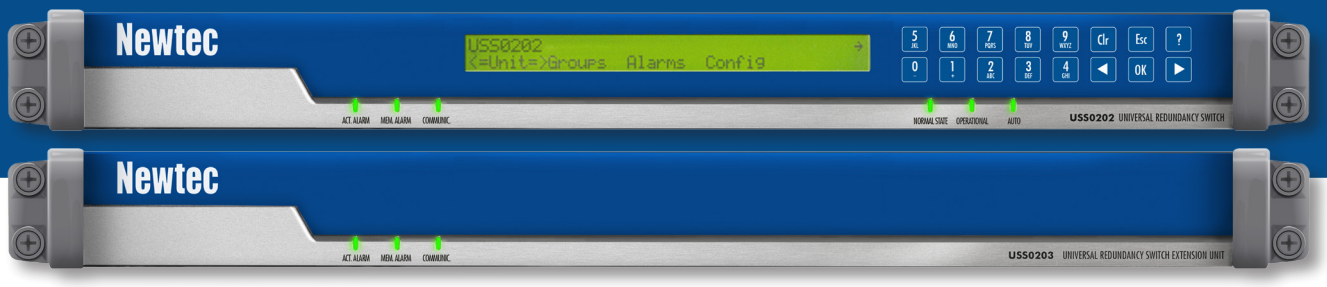
Newtec

USS0202/USS0203
UNIVERSAL REDUNDANCY SWITCH
(R2.1)



Description

The USS0202 Universal Redundancy Switch is a state-of-the-art product designed to provide a cost effective and scalable 1+1 and N+1 protection scheme for a wide variety of equipment such as modulators, demodulators, modems and converters.

The USS0202 set of advanced features allows optimizing the switching time and implementing efficient protection schemes.

The USS0202 meets simple and complex demanding protection requirements by operating and controlling up to 36 switching modules embedded in the main unit, or, for complex configurations, in up to seven USS0203 extension units.

Grouping of subgroups of devices and switches allows 1 USS system to monitor and configure several independent redundancy setups thereby allowing a compact solution for covering redundancy needs of a complex setup.

Switching can be done automatically through alarm contacts, manually through the front panel, a dedicated webGUI, or remotely via a monitoring and control system.

When the automatic mode is activated, the USS0202 monitors continuously the protected devices. In case of alarm on one of those, the USS0202 triggers a redundancy switch towards the spare device, according to rules defined by the set of parameters governing the switching operation.

The USS0202 is easy to install, configure, control and operate. Its SNMP interface allows simple integration into NMS systems. The USS0202 also allows defining a large set of switching behaviours through the use of a limited set of parameters.

The USS0202 provides a wide range of switching capabilities for almost any input and output signals used in satellite communications. The range of switchable signals include ASI or IP, as well as IF, L-band or RF band signals.

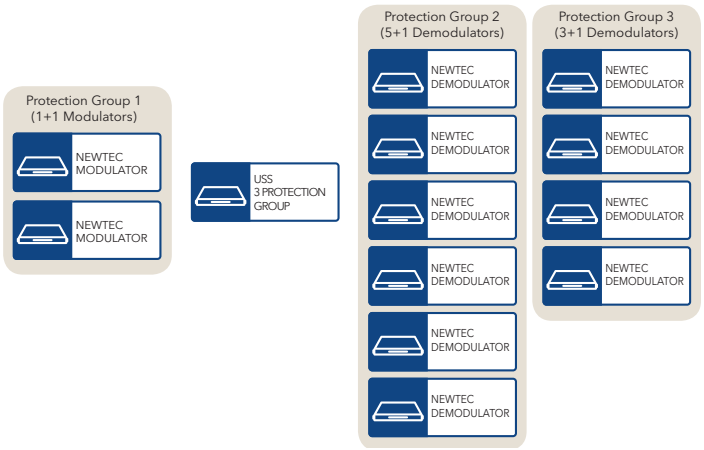
Key Features

- Switchable signals: ASI, IP, IF, L-band and RF-band
- Logical GbE Switching for interfacing with IP modems
- User-configurable switching logic
- Standalone operation or easily integrated into NMS systems via SNMP
- GUI with synoptic view
- Frontpanel interface for monitoring and manual operation
- Automatic or manual operational mode
- Automatic Switch Back
- Main & Extension Unit for supporting up to 36 switching modules
- Scalable from 1+1 to 16+1 redundancy configurations
- Dual redundant power supply with monitoring
- Fully integrated with Newtec Equipment for easing operations
- Copy the full configuration from a Newtec device or exclude some parameters at your choice
- Support of third party devices via alarm contact monitoring
- Ability to protect independent groups of devices
- Easy operation
- Flexible deployment and device hot replacement

Applications

Redundancy setups in uplinks or receive stations in the context of Broadcast, IP Trunking or any other application where satellite related earth equipment is deployed in a failsafe, redundant setup.

Example Configurations



SPECIFICATIONS

USS0202/USS0203
UNIVERSAL REDUNDANCY SWITCH

Related Products

- M6100 Broadcast Satellite Modulator
- MDM6100 Broadcast Satellite Modem
- MDM6000 Satellite Modem
- USS0212 1+1 Redundancy Switch
- All Azimuth and Elevation products

Main interface switches

IF (50 OHM, DC – 270 MHZ) (OPTIONAL)
- Connectors BNC (F) - 50 Ohm
- Frequency DC - 270 MHz
- Insertion loss < 2 dB
- Isolation > 50 dB (300 MHz)
- Signal IF

IF (75 OHM, DC - 270 MHZ) (OPTIONAL)
- Connectors BNC (F) - 75 Ohm
- Frequency DC - 270 MHz
- Insertion loss < 2 dB
- Isolation > 50 dB (300 MHz)
- Signals IF, video, G.703, ASI, SDI

L-BAND (50 OHM, DC-2.5 GHZ) (OPTIONAL)
- Connectors BNC (F) - 50 Ohm
- Frequency DC - 2.5 GHz
- Return loss > 18 dB (L band)
- Insertion loss < 0.5 dB
- Isolation > 75 dB (L band)
- Signals L-band

L-BAND (TOGGLE, 50 OHM, DC-2.15 GHZ) (OPTIONAL)
- Connectors SMA (F) - 50 Ohm
- Frequency DC - 2.15 GHz
- Return loss > 14 dB (L band)
- Insertion loss < 2.0 dB
- Isolation > 50 dB (L band)
- Signals L-band

L-BAND (75 OHM, DC – 2.5 GHZ) (OPTIONAL)
- Connectors BNC (F) – 75 Ohm
- Frequency DC – 2.5 GHz
- Return loss > 18 dB
- Insertion loss < 0.5 dB
- Isolation > 75 dB
- Signals L-band, HD-SDI

L-BAND (50 OHM, DC – 18 GHZ) (OPTIONAL)
- Connectors SMA (F) - 50 Ohm
- 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)
- Signals L-band, RF

OPTICAL, SC, SINGLE MODE (OPTIONAL)
- Connector 2 x duplex SC receptacles
- Minimum input power -30dBm
- Minimum output power -15dBm
- Wavelength 1300 nm
- Compliancy SONET OC3 & SDH STM1 (S1.1)
- Signal SDH

OPTICAL, SC, MULTI MODE (OPTIONAL)
- Connector 2 duplex SC receptacles
- Minimum input power -30dBm
- Minimum output power -23.5dBm
- Wavelength 1300 nm
- Compliancy ATM Forum UNI SONET OC-3 Multimode Fiber Physical layer specification
- Signal SDH

HSSI (OPTIONAL)
- Connectors 25 pin sub-D (F)
- Switch type 2 inputs/ 2 outputs
  2 positions: straight & cross-over
- Frequency DC - 52 MHz
- Isolation > 30 dB (balanced)

Other switching modules for audio signals,
wave guides and data signals are available upon request.

Input interface splitters

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

L-BAND SPLITTER (OPTIONAL)
- Connector (in, out) F (F) – 75 Ohm
- Frequency 950 – 2150 MHz
- Insertion loss < 6dB
- Isolation > 15dB

Generic

MONITOR AND CONTROL INTERFACES (VIA THE MAIN UNIT)
- Web server GUI (HTTP) via web browser
- Diagnostics report, alarm log (HTTP)
- Control of Newtec devices with RMCP over TCP/IP
- SNMP v.2c/MIB

Physical (main and extension units)

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

Ordering information

The USS0202 will be customized according to your specific needs. Please provide a description of your equipment setup to our sales department to receive a configuration proposal.

Please contact your sales representative for detail (sales@newtec.eu)

Newtec

SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS

Europe	North America	South America	Asia-Pacific	China	MENA
Tel: +32 3 780 65 00	Tel: +1 203 323-0042	Tel: +55 11 2092 6220	Tel: +65 6777 22 08	Tel: +86 10-823 18 730	Tel: +971 4 443 60 58
Fax: +32 3 780 65 49	Fax: +1 203 323-8406	Fax: +55 11 2093 3756	Fax: +65 6777 08 87	Fax: +86 10-823 18 731	Fax: +971 4 368 67 68