RCS11 1:1 Redundancy Switch

Modem Accessories

Overview

The RCS11 1:1 Redundancy Switch provides simple backup redundancy protection for all configurations of DMD15, DMD20, DMD50 and DMD2050 SCPC modems and the DM240 / DD240 DVB series of Digital Video Modulators and Demodulators. The backup functions of the RCS11 may be performed automatically, manually or from Terminal Mode.

Operating in the automatic mode, the RCS11 immediately places a non-faulted backup modem online in the event of a primary online modem failure. In the manual mode, the user may designate the selected online primary modem either from the interactive front panel or a remote terminal interface.

Features

- 1:1 Redundancy Protection for DMD15, DMD20, DMD50, DMD2050, DM240 & DD240 Series
- Automatic or manual modes of operation
- Self-contained dual redundant power supplies
- Manual operation from front panel or remote control
- Independent (mod/demod) or coupled (modem) backup capability
- IF options – 70/140 MHz or L-Band
- Supports 10/100Base-T Ethernet switching

Redundant Power Supplies

For maximum reliability, the RCS11 is equipped with two fully-redundant internal power supplies. Each power supply is fully independent of the other, including their source of AC or DC power and fusing. The RCS11 remains fully-operational as long as either power supply is providing a source of power.

Front Panel Controls

The front panel of the RCS11 provides all of the necessary controls and LED indicators to provide the operator with online and backup status of the online and backup modulators and demodulators.

Power-Up Defaults

During power-up, the RCS11 initializes itself to the last mode set by the front panel push buttons. For example, if the operator desires the RCS11 to operate in the Auto Mode, with both Mod and Demod set to Modem B, the operator places the RCS11 into this condition using the front panel pushbuttons and the RCS11 stores this configuration into nonvolatile memory. If the power source was then to fail and be restored, the RCS11 would again power-up in the Auto Mode with both Mod and Demod set to Modem B.

Specifications

Published specifications reflect all options available with the RCS11. Each RCS11 can be configured to customer requirements via hardware / software options applied at the factory or in the field.

General

Modes of Operation	Auto, manual, remote
Configurations	Modem, mod only, demod only
Modulator Switch Time	50 msec maximum
Demodulator Switch Time	50 msec maximum + demod lock time
Modulator Switch Delay Time	40 msec
Demodulator Switch Delay Time	1 second
IF Switching	*70/140 MHz*: BNC (F) 75 Ohm standard (50 Ohm optional) *L-Band*: SMA (F) All L-Band products Type-F (F) DD240

Monitor and Control

All operating parameters can be monitored and controlled via the front panel display/keypad or the RS-485 or RS-232 serial control channel in either terminal or remote modes. The following modem parameters may be controlled and/or monitored:

Parameters Monitored	Mode, mod/demod/modem, power supply status, internal switch settings, software
Parameters Controlled	Mode, mod/demod/modem, auto/manual, select A, select B

Front Panel LED Indicators

Unit	Power supply 1 Power supply 2 Switch fault Auto Manual
Demodulator	Online A/B Fault A/B
Modulator	Online A/B Fault A/B

Front Panel Controls

Enable
Select auto
Mod select A
Mod select B
Demod select A
Demod select B

Options – Cable Sets

DMD15	DMD2050
DMD20	DD240XR
DMD50	DM240XR

Terrestrial Interfaces

DMD15	*Universal*: RS-449/ V.35/RS-232/G.703/IDR & IBS alarms/drop & insert
DM240XR	*Synch*:ASI or ASI with offline IF Monitor or RS-530 *Universal*: M2P, DVB (RS-422 or LVDS) or ASI *Universal*: HSSI *Ethernet:* 100/1000Base-T
DD240XR	*Synch*: ASI *Universal*: ASI *Universal*: M2P, DVB (RS-422 or LVDS) G.703, HSSI, *Ethernet:* 100/1000Base-T
DMD20	*Synch*: RS-530/ V.35/RS-232 *Universal*: RS-530/ V.35/RS-232/G.703/ IDR & IBS Alarms/Drop & Insert, ASI/Parallel,HSSI *Ethernet:* 10/100Base-T/RS-530
DMD50	*Synch*: RS-530/ V.35/RS-232, *Universal*: RS-530/V.35/RS-232/G.703/IDR & IBS alarms/drop & insert G703 (T3, E3, STS1) ASI HSSI *Ethernet:* 10/100Base-T/RS-530
DMD2050	*Synch*: RS-530/ V.35/RS-232, *Universal*: RS-530/V.35/RS-232/G.703/IDR & IBS alarms/drop & insert G703 (T3, E3, STS1) ASI HSSI *Ethernet:* 100/1000Base-T/RS-530

Physical, Power & Environmental

Short Chassis Dimension (height x width x depth)	1.75" x 19" x 16.5" (4.45 x 48.26 x 41.91 cm)
Weight	12 lbs (5.4 kg)
Long Chassis Dimensions (height x width x depth)	1.75" x 19" x 21" (4.45 x 48.26 x 55.24 cm)
Weight	12 lbs (5.4 kg)
Prime Power	100 to 240 VAC, 50 to 60 Hz, 40 W
Operating Temperature	0 to 50°C, 95% humidity, non-condensing
Storage Temperature	-20 to 70°C, 99% humidity, non-condensing

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