



RCS11

1:1 Redundancy Switch



HIGHLIGHTS

- ▶ 1:1 Redundancy Protection for DMD15, DMD20, DMD50, DMD2401, DM240 and DD240
- ▶ 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 10/100 Base-T Ethernet Switching



OVERVIEW

The Radyne RCS11 1:1 Redundancy Switch provides simple backup redundancy protection for all configurations of DMD15, DMD20, DMD50 and DMD2401 satellite modems as well as the 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.

REDUNDANT POWER SUPPLIES

For highest reliability, the RCS11 is equipped with two fully-redundant internal power supplies that provide +5 Volts to the system. Each power supply is fully independent of the other, including their source of AC power and fusing. The RCS11 remains fully-operational as long as either power supply is providing a source of power. The power supplies are located one on either side of the front of the RCS11 chassis.

FRONT PANEL CONTROLS

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



RCS11 1:1 Redundancy Switch

SPECIFICATIONS

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:	<u>70/140 MHz</u> : BNC (F) 75 Ohm Standard (50 Ohm Optional) <u>L-Band</u> : 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 command modes. The following modem parameters may be controlled and/or monitored:

Parameters Monitored:	Mode, Mod/Demod/Modem, Power Supply Status, Internal Switch Settings, Software Revision, Auto/Manual, Select A, Select B
Parameters Controlled:	Mode, Mod/Demod/Modem, Auto/Manual, Select A, Select B

TERRESTRIAL INTERFACES

DMD2401:	<u>Synch</u> : RS-449, V.35, RS-232 <u>Universal</u> : RS-449, V.35, RS-232, G.703, IDR and IBS Alarms, Drop & Insert
DMD15:	<u>Universal</u> : RS-449, V.35, RS-232, G.703, IDR and IBS Alarms, Drop & Insert
DM240:	ASI M2P, DVB (RS-422 or LVDS) G.703, HSSI RS-422 Serial
DD240:	ASI M2P, DVB (RS-422 or LVDS) G.703, HSSI
DMD20/DMD50/ DMD2050	<u>Synch</u> : RS-530, V.35, RS-232 <u>Universal</u> : RS-530, V.35, RS-232, G.703, IDR and IBS Alarms, Drop & Insert, Synch ASI HSSI Ethernet1 Synch

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:	DMD2401 DMD15 DMD20 DMD50 DMD2050 DD240 DM240 ES/ES
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POWER AND ENVIRONMENTAL

Prime Power:	100 to 240 VAC, 50 to 60 Hz, 40 Watts
Operating Temperature:	0 to 50°C, 95% Humidity, Noncondensing
Storage Temperature:	-20 to 70°C, 99% Humidity, Noncondensing

PHYSICAL

Chassis Size:	19" L x 19" W x 1.75" H (48.26 cm x 48.26 cm x 4.45 cm)
Weight:	12 Pounds (5.4 Kg)

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ML-0016B1-06-23-06

