



RCS11

1:1 Redundancy Switch



HIGHLIGHTS

- ▶ 1:1 Redundancy Protection for DMD15, DMD20 Series, DMD50 Series, DMD2050 Series, 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 10/100 BaseT Ethernet Switching

OVERVIEW

The RCS11 1:1 Redundancy Switch provides simple backup redundancy protection for all configurations of DMD15, DMD20, DMD50, DMD2050 SCPC modems and 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.

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.

RCS11 1:1 Redundancy Switch

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:	<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 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

Terrestrial Interfaces

DMD15:	<u>Universal</u> : RS449/ V.35/RS232/G.703/IDR & IBS Alarms/Drop & Insert
DM240XR:	<u>Synch</u> : ASI or ASI with offline IF Monitor or RS530 <u>Universal</u> : M2P, DVB (RS422 or LVDS) or ASI <u>Universal</u> : HSSI <u>Ethernet</u> : 100/1000 BaseT
DD240XR:	<u>Synch</u> : ASI <u>Universal</u> : ASI <u>Universal</u> : M2P, DVB (RS422 or LVDS) G.703, HSSI, <u>Ethernet</u> : 100/1000 BaseT
DMD20:	<u>Synch</u> : RS530/ V.35/RS232 <u>Universal</u> : RS530/ V.35/RS232/G.703/ IDR & IBS Alarms/Drop & Insert, ASI/Parallel, HSSI, <u>Ethernet</u> : 10/100 BaseT/RS530
DMD50:	<u>Synch</u> : RS530/ V.35/RS232, <u>Universal</u> : RS530/V.35/RS232/G.703/IDR & IBS Alarms/Drop & Insert G703 (T3, E3, STS1) ASI HSSI <u>Ethernet</u> : 10/100 BaseT/RS530
DMD2050	<u>Synch</u> : RS530/ V.35/RS232, <u>Universal</u> : RS530/V.35/RS232/G.703/IDR & IBS Alarms/Drop & Insert G703 (T3, E3, STS1) ASI HSSI <u>Ethernet</u> : 100/1000 BaseT/RS530

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 DMD20 DMD50 DMD2050 DD240XR DM240XR
-------------	--

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

Short Chassis Size:	16.5" L x 19" W x 1.75" H (41.91 cm x 48.26 cm x 4.45 cm)
Weight:	12 Pounds (5.4 Kg)
Long Chassis Size:	21" L x 19" W x 1.75" H (55.24 cm x 48.26 cm x 4.45 cm)
Weight:	12 Pounds (5.4 Kg)



2114 West 7th Street, Tempe, Arizona 85281 USA Voice 1 480 333 2200 Fax 1 480 333 2540 Email sales@comtechefdata.com

Comtech EF Data reserves the right to change specifications of products described in this document at any time without notice and without obligation to notify any person of such changes. Information in this document may differ from that published in other Comtech EF Data documents. Refer to the website or contact Customer Service for the latest released product information.