



CRS-280L Front Panel (Configuration 1:10)

INTRODUCTION

The CRS-280L 1:N Redundancy Switch is a companion product used with Comtech EF Data L-Band modems and redundancy switches:

- CDM-570L and CRS-300
- CDM-600L and CRS-300
- SDM-300L3 and SMS-7000
- SLM-3650L and SMS-7000

When combined with the applicable data switch, the CRS-280L fully protects L-Band signal paths and increases the confidence that equipment failures will not adversely affect system availability. A block diagram illustrates the 1:N architecture (see diagram on back of this document).

L-BAND SWITCHING

The CRS-280L provides 1:N switching L-Band signals. A separate data switch routes data for redundancy operation. The 1:N switch is not intended for passing DC, 10 MHz or FSK from the modem to BUCs or LNBs.

FEATURES

The CRS-280L uses high quality RF switches for superior performance:

- Ultimate isolation between signal paths
- "No worry" Tx-Tx or Tx-Rx interference
- L-Band Test ports for offline Tx and Rx verification
- Splitters in the Rx path to pass L-Band signals simultaneously to the primary and standby demodulators
- Configurations: 1:4 through 1:10
- Rear mount in rack or cabinet
- Front mount compatible

SWITCH CAPABILITIES

The CRS-280L is a slave device that inherits the extensive capabilities of the CRS-300 and SMS-7000 redundancy products. This includes full automatic operation and manual operation for troubleshooting and maintenance.



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1:N L-Band Modem Redundancy Switch

SYSTEM

Switching Type	1:N, maximum N = 10
Number of Uplink/Downlink Channels	10 maximum for CRS-300 8 maximum for SMS-7000
Tx/Rx Operating Frequency	950 to 1950 MHz
Tx/Rx Impedance	50 Ω
Tx/Rx Connectors	N-Type female (50 Ω)
Tx Return Loss,	15dB at 50 Ω
Tx to Tx Channel Isolation	>70 dB
Rx to Rx Channel Isolation	>70 dB
Tx to Rx Channel Isolation	>90 dB
Transmit IF Loss/Flatness	
Tx In To Tx Uplink Out	< 0.8 dB/0.5 dB over operating frequency
BU In To Any Uplink Out	< 2.5 dB/1.0 dB over operating frequency
Receive IF Loss/Flatness	
Rx Downlink In To Rx Out	< 4.0 dB/0.5 dB over operating frequency
Any Downlink In To BU Out	< 5.5 dB/1.0 dB over operating frequency
Rx Return Loss	15 dB into 50 Ω
Power Loss Failsafe	All uplinks/downlinks revert to associated L-band inputs/outputs
Control Interface	
CRS-xxx Type Switches	25 pin sub-D female
SMS-xxxx Type Switches	15 pin sub-D female

ENVIRONMENTAL AND PHYSICAL

Prime Power, AC	100 to 240 VAC, 50 to 60 Hz, 40 W maximum
Size	19W x 14D x 7H inch (4 RU) (48.2 cm x 35.6 cm x 17.8 cm)
Weight	< 25 lbs. (11.4 kg)
Temperature:	
Operating	0 to 50°C (32 to 122°F)
Storage	-40° to +70°C (-40° to +158°F)
Humidity: Operational	< 95%, non-condensing at 50°C

OPTIONS / ACCESSORIES

Number Of Duplex Channels	
Minimum	4
Maximum	8, SMS-7000
Maximum	10, CRS-300
Switch/Modem Cable Sets	1:4 through 1:10



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