



## FEATURES

- 1:N Configuration
- High Rate

## APPLICATIONS

Comtech EFData's SMS-458B 1:N high data rate modem protection switch provides automatic redundancy for the Comtech EFData SDM-9000 modems.

The SMS-458B switch provides automatic redundancy protection for up to four online modems with one backup modem.

The SMS-451A protection switch is a related product, providing 1:1 high rate modem protection.

The SMS-458B directly switches the IF output of the backup modem to replace the IF output of any of the prime modems (up to four). The backup demodulator may be switched to receive any one of four down converters. A low loss-combining network can be used for a specific number of transponders.

The switch operates with both 70 and 140 MHz IF configurations in the online modems. This feature allows both wide-band and narrow-band transponders to be served by a single switch.

A 16-button keypad and 48-character display are provided on the front panel for local control and status reporting.

Remote control of switch functions is accommodated through a standard EIA-232 or EIA-485 serial interface. Complete power supply redundancy and non-volatile memory are built in for power loss protection.

All four primary modems, the backup modem, and the SMS-458B can be installed in a single 6-foot rack.

The switch polls all modems online to "learn" their configuration, making installation and setup very simple.

## OTHER FEATURES

- 50 to 180 MHz IF Switching
- Independent Modulator and Demodulator Switching
- Independent Uplink and Downlink Selection
- Handles up to 4 Downlinks
- Low Loss Configuration
- Backup Prioritization
- In-Service Repairability
- Automatic Internal Configuration to 110 or 220 VAC
- G.703 or MIL-STD-188 Interface

## SPECIFICATIONS

### System

Frequency Range	50 to 180 MHz
Impedance at Ports	75Ω
Return Loss	> 15 dB
Isolation	> 60 dB
Online Modems	Expandable from 1 to 4
Data Interface	G.703, MIL-STD-188, 32 to 45 Mbit/s (G.703), 13 Mbit/s (MIL-STD-188)
Power	90 to 264 VAC, 47 to 63 Hz, 40W max (-48 VDC optional)
Size	19W x 22D x 12.25H inches (7 RU) (48.2W x 55.8D x 31H cm)
Weight	50 lbs (22.7 kg)

### Loss

Prime Modulator to Output	< 1 dB
Backup Modulator to Prime Output	< 1 dB
Any Downlink to Backup Demodulator	< 1 dB

### Balance

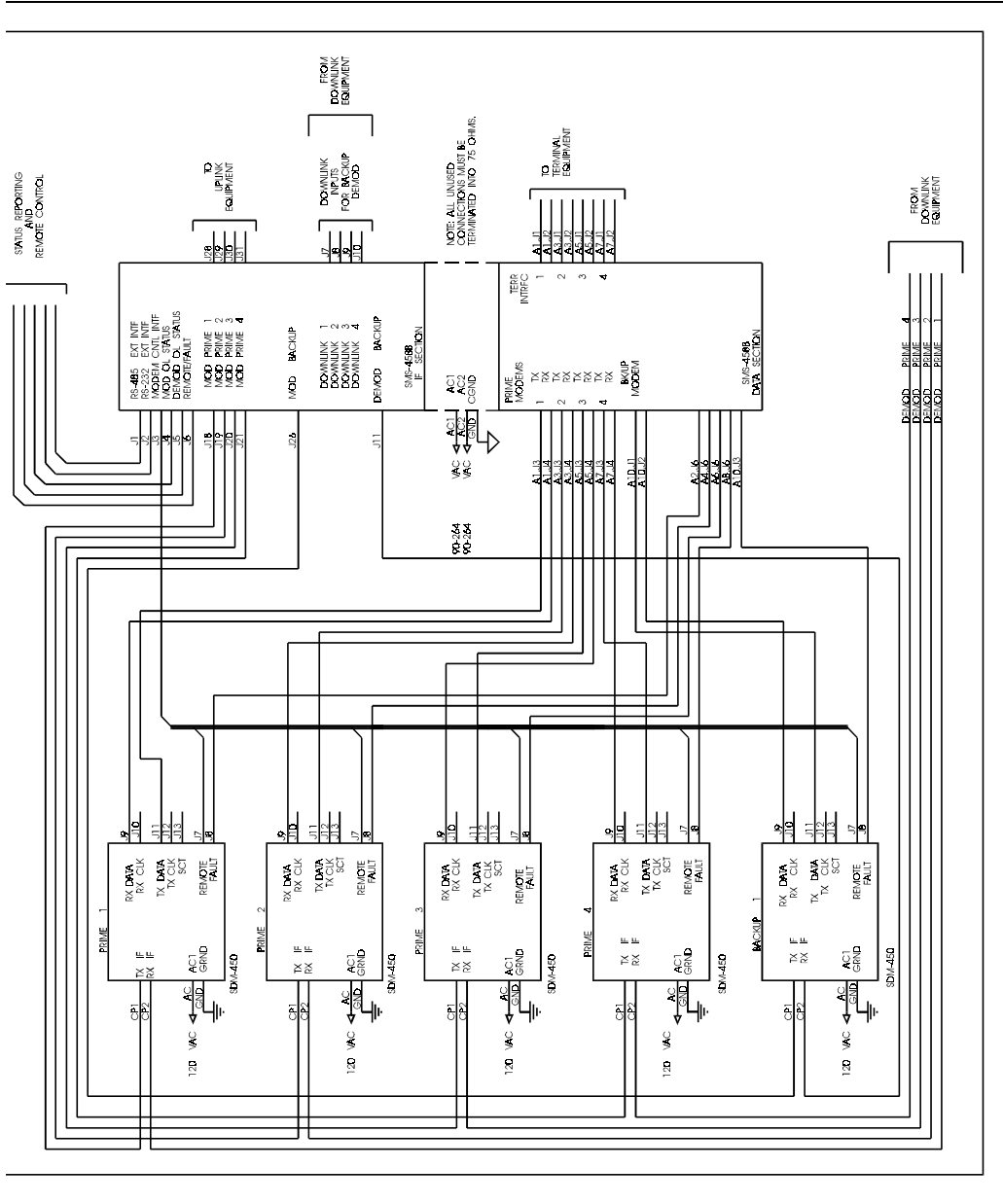
Backup Modulator	Within ± 0.25 dB primary when switched online.
Switchover Priority	1 of 3 independent levels for Mod and Demod.
Remote M&C Interface	EIA-485 or EIA-232
Controls	Control of all modem functions via front panel and remote control port
Operation Modes	Auto, Local, Remote, and Bypass.



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# SMS-458B BLOCK DIAGRAM



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