

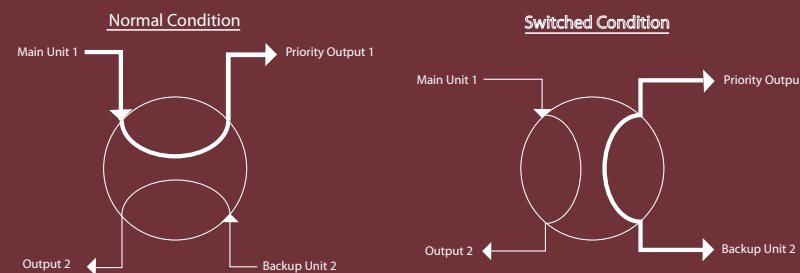
● PROTECTION SWITCHES FOR M/M2 SERIES CONVERTERS

1:1 SLIMLINE PROTECTION SWITCHES

MODEL UCS1 (FOR UP CONVERTERS) / MODEL DCS1 (FOR DOWN CONVERTERS)

The UCS-1 and DCS-1 1:1 Protection Switches offer continuous protection of the on-line unit. With both the on-line and back-up units mounted by the switch, in the event of a failure, the back-up unit is immediately brought on-line. The switch is front-panel mounted to allow the unit to be switched manually. A rear panel remote interface provides user with complete operational mode status, alarm indication, and remote switch drive capabilities. All Slimline Redundant Switching units have output impedance matching isolators. The Protection Switches are used to provide automatic 1:1 protection switching for all types frequency converters, GCE receivers or exciters for both video and data.

These units are designed to be low cost and lightweight; as a result, these switches require a 24V/1A power supply. Our M and M2 type converters already come standard with a 24V supply to feed these switches. The RF routing is arranged so that in a “normal” configuration the input signal from unit 1 is brought to the unit 1 output, and the unit 2 input is brought to the unit 2 output. On initiation of a "cross" command, the input from unit 1 is switched to output 2 and then input of unit 2 is brought to output 1. This makes it possible for unit 1 output connector to retain a “priority” on line status, independent of input signal selection. See diagram below for details.



The Data Bus Switching Option provides remote control of the Redundant Switch via our M or M2 type converters and utilizing the J1, J2, and J3 connections on the back of the Redundant Switch.



FEATURES

- Compact, 1-3/4" high (44mm)
- Automatic and front-panel monitor control
- Remote status indication & command
- Low insertion loss and low switching speeds
- Cabling provided at no charge
- Front panel manual switch override
- Available for all standard microwave and IF Frequencies (e.g. 70 or 140 MHz; C-Band, L-Band, or Ku-Band)
- For frequency converters, receivers, and exciters

M/M2 PROTECTION SWITCHES SPECIFICATIONS

PERFORMANCE SPECIFICATIONS

Prime Power.....	No AC power necessary. Requires external 24 VDC at 1 Amp. Maximum during switching only. (Power supplied by both units being protected).
Operating Temperature.....	0° to 50°C
Switching Time.....	100 msec max.
Test Points.....	Off-line out
RF VSWR/Impedance.....	1.35 max 50 ohms
IF VSWR/Impedance.....	1.35 max 75 ohms
Insertion Loss.....	0.3 dB max for C-Band 0.35 dB max for Ku-Band 0.05 dB max for IF and L-Band
Maximum RF Power.....	50 Watts max.
Isolation.....	80 dB min. (50 dB minimum for Ku-Band)
Indicators (LED).....	Switch position (LED and manual) Manual/Auto Summary alarms
Connectors.....	Type: N, SMA, or BNC (Depending on application) UNIT 1, UNIT 2, OUTPUT 1, OUTPUT 2
Weight.....	10lbs (4.6 Kg.) max.
Overall Dimensions.....	22" x 19" x 1.75" (1RU High) max. (44.5 x 483 x 508mm) For rack mounting
Operating Relative Humidity.....	Up to 95% @ 30°C
Operating Altitude.....	Up to 15,000 ft.
Non-Operating Altitude.....	Up to 40,000 ft.
Non-Operating Temperature Range.....	-50 to +70°C
Non-Operating Relative Humidity.....	Up to 95% @ 40°C (non-condensing)
Shock/Vibration.....	Normal handling by commercial carriers