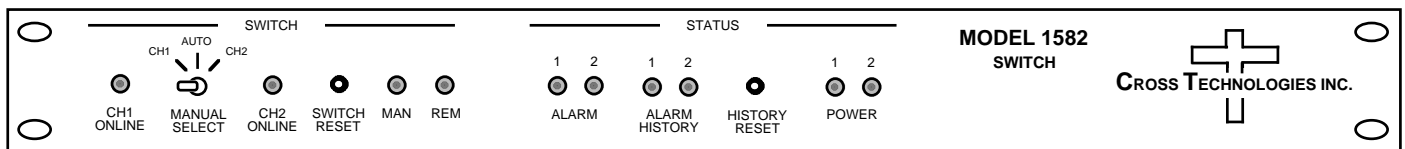


1582-654 - IF/RF 1x1, Quad Protection Switch

The 1582-654 Dual IF/RF Protection Switch provides Auto, Manual or Remote relay switching between CH1 and CH2 for both IF signals (DC to 1.5 GHz) and RF signals (DC to 6.5 GHz) typically for use with combination Up/Downconverters to C-band . Alarm conditions on CH1 and CH2 are either a contact closure to ground or an open (selectable). The logic controls two RF switches (A and C) and two IF switches, (B and D) which all switch together. Switching logic can be selected as follows:

1. 1) CH1 Prime Mode - Switches from CH1 to the CH2 only if CH1 alarms and CH2 is good. Switches back when CH1 is no longer in alarm or both CH1 and CH2 are bad.
2. 2) Latch to CH2 Mode - Switches to CH2 if CH1 alarms and CH2 is good. Latches to CH2. Push Manual Reset or ground Remote Reset pin to return to CH1 if it has no alarm.
3. 3) Minimum AUTO switching, Initial Channel Select (ICS) Mode - Switch stays on channel last selected by Manual or Remote selection after return to AUTO. AUTO switching occurs only if current channel alarms and other channel is clear.

When power is lost, CH1 is selected. The Manual Select switch and (when in AUTO) contact closures to Remote Select pins select CH1 or CH2 independent of alarms. LEDs indicate alarm and switch conditions for CH1 and CH2 and REMOTE or MANUAL operation. The 1582-652 is housed in a 1RU x 12" deep chassis, and is powered by two redundant power supplies.



1582-654

EQUIPMENT SPECIFICATIONS*

IF Switches (SWITCHES B & D) Characteristics

Impedance / Connectors	75Ω / BNC (50Ω BNC-option M)
Isolation	>65 dB DC to 10 MHz >50 dB to 1.0 GHz; >40 dB to 1.5 GHz
Switch time	≤10 milliseconds
Insertion Loss	≤1 dB to 1.0 GHz; ≤1.5 dB to 1.5 GHz
Configuration	DPDT

RF Switches (SWITCHES A & C) Characteristics

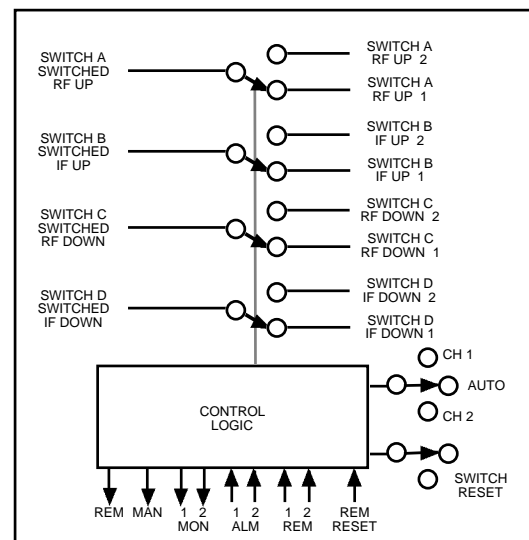
Impedance / Connectors	50Ω / Type N
Return Loss	>18 dB DC to 4 GHz >15 dB to 6.5 GHz;
Type	Relay
Isolation	>70 dB DC to 4 GHz >60 dB to 6.5 GHz;
Switch time	≤10 milliseconds
Insertion Loss	≤1 dB to 4.0 GHz; ≤1.5 dB to 6.5 GHz
Configuration	SPDT, no termination

Other

Alarm/Remote Connector	Terminal Strip
Power	Redundant power supplies; 100-240 ±10% VAC, 47 -63 Hz, 30 watts

Options

M	50Ω N-Type /RF, 50Ω / BNC (female) IF Connectors
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1582-654 BLOCK DIAGRAM

*10°C to 40°C; 2000m max elevation; 80% max humidity; Specifications subject to change without notice.

