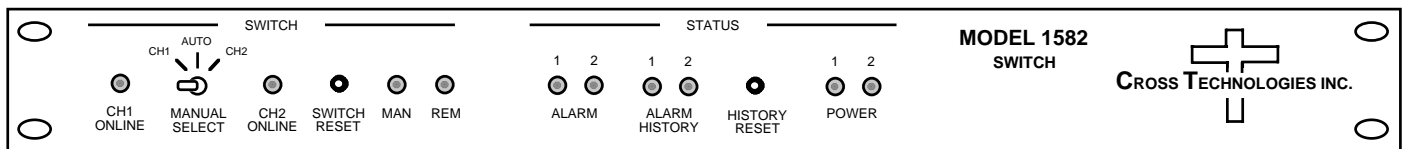


## 1582-154 IF/RF Protection Switch

The 1582-154 IF/RF 1:1 Protection Switch provides Auto, Manual or Remote relay switching between CH1 and CH2 for both IF/L-Band signals (DC to 2.5 GHz) and RF signals (DC to 15 GHz.) Alarm conditions on CH1 and CH2 are either a contact closure to ground or an open (selectable). The logic controls two separate IF/L-Band switches (A and B) and two separate RF switches (C and D), all switching simultaneously upon an Alarm condition. Switching logic can be selected as follows:

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. 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. 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 1582-152 is housed in a 1RU x 12" deep chassis, and is powered by two redundant power supplies.



**Front Panel**

### EQUIPMENT SPECIFICATIONS\*

#### IF/L-Band Switch Characteristics

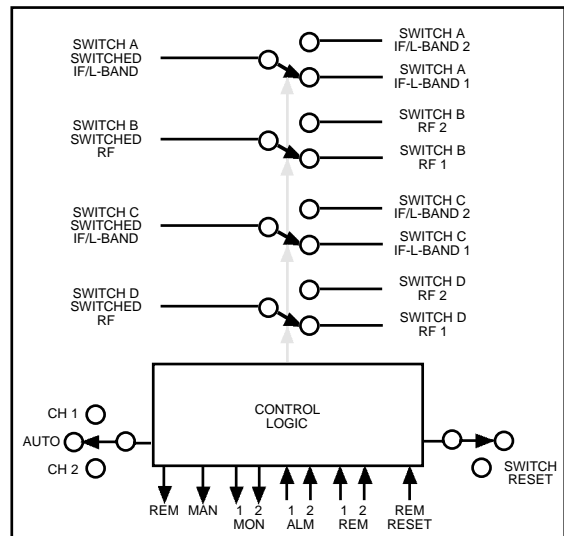
Impedance / Connectors	75Ω / BNC
Type	Relay/DPDT
Return Loss	≥12 dB DC to 1.5 GHz ≥10 dB to 2.5 GHz
Frequency Response	≤±0.5 dB, any 40 MHz BW, DC to 2.5 GHz
Isolation	55 dB max., ≥ 60 dB typ. DC to 1.5 GHz 45 dB max., ≥ 50 dB typ. to 2.5 GHz
Switch time	≤10 milliseconds
Insertion Loss	1.5 dB max., ≤ 1.0 dB typ. DC to 1.5 GHz 2.5 dB max., ≤ 2.0 dB typ. to 2.5 GHz
Configuration	DPDT

#### RF Switch Characteristics

Impedance / Connectors	50Ω / SMA
Return Loss	>18 dB DC to 4 GHz >15 dB to 8 GHz >12 dB to 15 GHz
Type	Relay
Isolation	>70 dB DC to 4 GHz >60 dB to 8 GHz
Switch time	≤10 milliseconds
Insertion Loss	≤1 dB DC to 4 GHz ≤1.5 dB to 8 GHz ≤2.0 dB to 15 GHz
Configuration	DPDT, no termination

#### Other

Alarm/Remote Connector	Terminal Strip
Power	Redundant power supplies; 90 - 260 VAC, 47 -63 Hz, 30 watts



**Block Diagram**

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

