

**1582-1152 1:1 Switch, IF-L/RF, M&C Monitor and Channel Select**

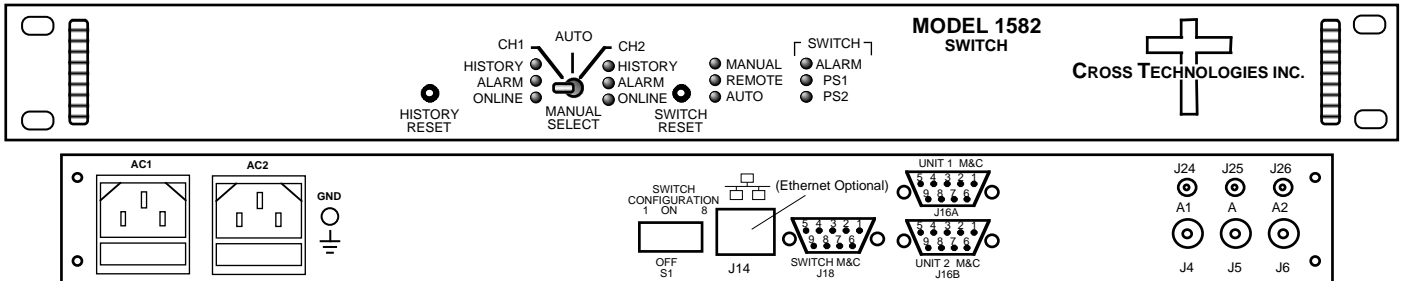
The 1582-1152 1:1 Switch, IF-L/RF provides Auto, Manual or Remote (M&C) relay switching between CH1 and CH2, IF-L and RF signals. The M&C provides monitoring of all parameters and Channel Selection (when in Auto mode only). Alarm conditions on CH1 and CH2 are either a contact closure to ground or an open (selectable by a rear panel DIP switch). Auto has three modes:

**Auto - CH1 PRIME :** The CH1 preferred mode - switches from CH1 to CH2 only if CH1 alarms and CH2 is good. The unit switches back to CH1 when CH1 is no longer in alarm or both CH1 and CH2 are alarmed.

**Auto - LATCH2:** Latch to CH2 mode - switches from CH1 to CH2 if CH1 alarms and CH2 is good and stays in CH2 regardless of CH1 or CH2 alarm conditions until reset to CH1 by the front panel Switch Reset switch or M&C command.

**Auto - MIN SW:** Minimum Auto switching mode - switching occurs if the active channel (set by the front panel Manual Select switch or M&C command) alarms and the other channel is clear. It switches back if this channel then alarms and the other is clear.

When power is lost, CH1 is selected; with option -L, the last latched state is selected. Front panel LEDs indicate CH1 and CH2 alarms, Remote or Manual mode, and redundant power supplies on. Rear panel DIP switches set alarm polarity (NO or NC for alarm), M&C interface, and Auto modes (CH1 PRIME, LATCH2, or MIN SW). The front panel switch selects the signal path in the Manual mode or selects AUTO switching. The RS232 or RS422/485 M&C (Ethernet optional) monitors switch positions, LED and alarm status, and selects the RF switch position (when in Auto mode only). A contact closure to ground indicates an internal fault condition or loss of power. Connectors are SMA for RF, BNC for IF-L signals and DB9 for M&C and alarm input and output contact closures. The 1RU chassis has separately fused, redundant power supplies with 100-240 ±10% VAC input connectors.



**1582-1152 FRONT AND REAR PANEL (OPTIONAL ETHERNET SHOWN)**

**1582-1152 Technical Specifications**

**IF/L-Band Switch Characteristics**

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

**RF Switch Characteristics**

Impedance / Connectors	50Ω / SMA
Return Loss, dB	> 18 to 4 GHz; > 15 to 8 GHz; > 12 to 15 GHz
Frequency Response	≤ ±0.5 dB, 40 MHz BW; ≤ ±1 dB, 1 GHz BW
Isolation, dB	> 70 to 4 GHz; > 60 to 8 GHz; > 50 to 15 GHz
Switch time	≤ 10 milliseconds
Insertion Loss, dB	≤ 1 to 4 GHz; ≤ 1.5 to 8 GHz; ≤ 2.0 to 15 GHz
Type, Configuration	Relay, SPDT, no termination

**Alarm and Control, M&C**

Alarm output signal	Form C relay: 30VDC, 0.5A max
M & C Interface/baud rate	RS232C or RS422/485, selectable/9600 (Ethernet Optional)

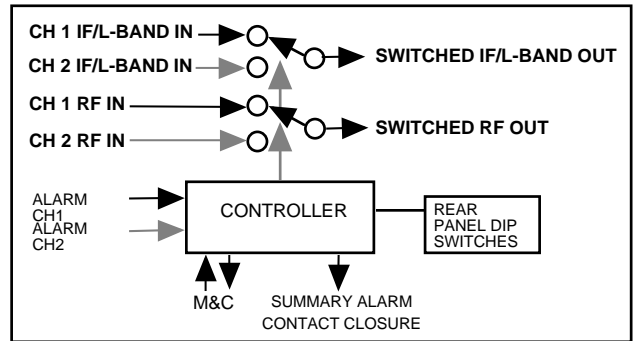
**Controls, Indicators**

Auto/Man	Front Panel switch
Sw Reset, History Reset	Front Panel switches or M&C
Pwr; Rem, Man, Alarm	Green, Yellow, Red, Red LED-Form C contact closure, M&C

**Connectors, Other**

RF, IF-L Connectors	50Ω SMA (female), 75Ω BNC (female)
Ext. Alarms In, M&C Con.	DB9 (female)
Size	1 RU, 19 inch standard chassis 1.75" high X 12.0" deep
Power	Redundant 100 - 240 ±10% VAC, 47 - 63 Hz, 20 Watts maximum power supplies

\*10°C to 40°C; Specifications subject to change without notice



**1582-1152 BLOCK DIAGRAM**

**Available Options**

- L - Latched relay switching (relay position preserved on power loss)**
- Remote M&C Interfaces**
- W8 - Ethernet**
- W18 - Ethernet SNMP w/MIB**
- W28 - Ethernet TCP/IP Direct Access**
- W31 - 0 to +50 degrees C operation**
- Connectors/Impedance**
- S - 50Ω SMA (RF), 50Ω BNC (IF-L)**
- SF - 50Ω SMA (RF), 75Ω F (IF-L)**

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