

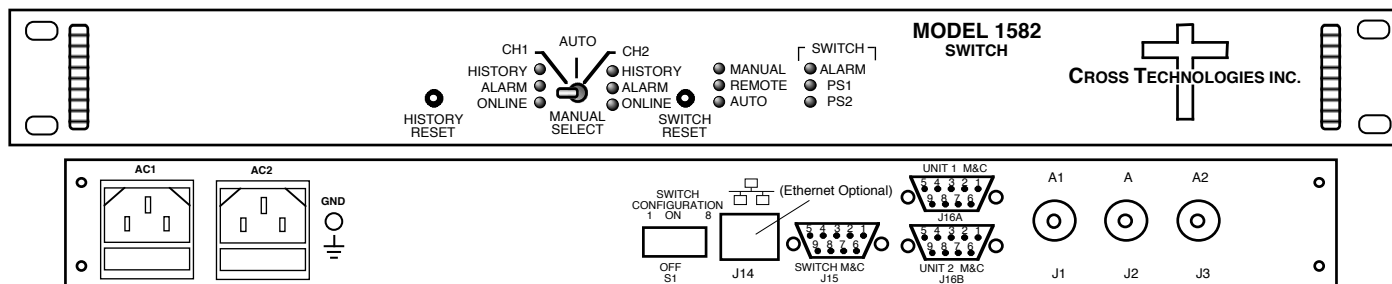
## 1582-1650 1:1 Switch, DC-6.5 GHz, SPDT, M&C Monitor and Channel Select

The 1582-1650 1:1 Switch provides SPDT Auto, Manual or Remote (M&C) relay switching between CH1 and CH2, DC - 6.5 GHz RF signals. The M&C provides monitoring of all parameters, Switch and History Reset, 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. 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 Type N for RF 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.



1582-1650 FRONT AND REAR PANEL (OPTIONAL ETHERNET SHOWN)

### 1582-1650 Technical Specifications

#### RF Switch Characteristics

Impedance / Connectors	50Ω / Type N
Return Loss	18 dB min; DC to 4.0 GHz 15 dB min; 4.0 to 6.5 GHz
Frequency Response	≤ ±0.5 dB, 40 MHz BW; ≤ ±1 dB, 1 GHz BW
Isolation	≥ 70 dB; DC to 4.0 GHz ≥ 60 dB; 4.0 to 6.5 GHz
Insertion Loss	≤ 1.0 dB ; DC to 4.0 GHz ≤ 1.5 dB typ; 4.0 to 6.5 GHz
Switch time	≤ 20 milliseconds
DC Switching	30VDC, max; 0.5 Amps, max
Type, Configuration	<b>SPDT, failsafe</b> , 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)

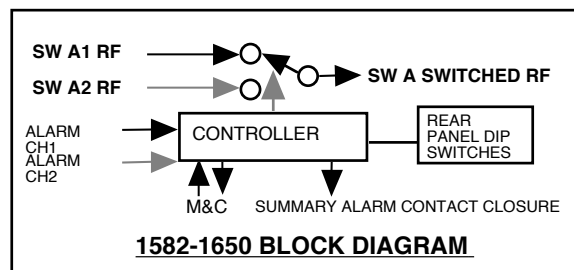
#### Controls, Indicators

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 Connectors	50Ω Type N (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, 30 Watts maximum power supplies

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



1582-1650 BLOCK DIAGRAM

#### Available Options

- W8 - Ethernet; w/Web Browser (WB)
- W18 - Ethernet; w/WB & SNMP
- W28 - Ethernet; w/TCP/IP, Telnet
- W828 - W8 + W18 + W28
- W31 - 0 to +50 degrees C operation

#### Connectors/Impedance

- STD - 50Ω, Type N (RF IN), Type N (RF OUT)
- S - 50Ω SMA (RF IN), SMA (RF OUT)

#### Contact Cross for other options