

## 1582-122L 1:1 Switch, 0.95-2.15 GHz, 2PDT, M&C Monitor and Channel Select

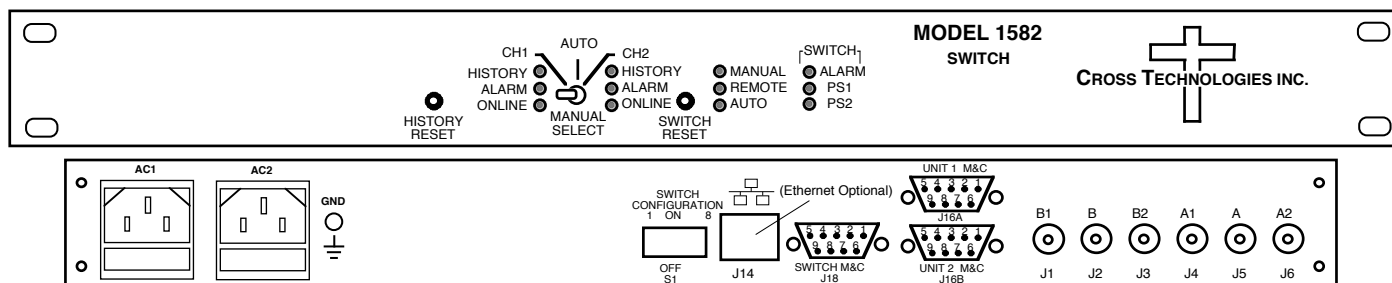
The 1582-122L 1:1 Switch provides 2PDT Auto, Manual or Remote (M&C) latched relay switching between CH1 and CH2, **DC, 10 MHz and 0.95 - 2.15 GHz RF signals**. The M&C provides monitoring of all parameters, Switch and History Reset, and Channel Selection (when in Auto mode only). Alarm conditions on 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, the current latched state remains 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 BNC 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  $\pm 10\%$  VAC input connectors.



**1582-122L FRONT AND REAR PANEL (OPTIONAL ETHERNET SHOWN)**

### 1582-122L Technical Specifications

#### RF Switch Characteristics (not specified 26 MHz to 0.8 GHz)

Impedance / Connectors	75 $\Omega$ / BNC
Return Loss	12 dB min, $\geq 14$ dB typ; <b>0.95 to 1.5 GHz</b> 10 dB min, $\geq 12$ dB typ; 1.5 to 2.15 GHz
Frequency Response	$\leq \pm 0.5$ dB, 40 MHz BW; $\leq \pm 1.5$ dB, <b>0.95 to 2.15 GHz</b>
Isolation	$\leq 50$ dB, at 10 to 25 MHz <b>50 dB min, <math>\geq 55</math> dB typ; 0.95 to 2.15 GHz</b> 45 dB min, $\geq 50$ dB typ; 1.5 to 2.15 GHz
Insertion Loss	$\leq 2.0$ dB, at 10 to 25 MHz 1.5 dB max, $\leq 1.0$ dB typ; <b>0.95 to 1.5 GHz</b> 2.5 dB max, $\leq 2.0$ dB typ; 1.5 to 2.15 GHz
Switch time	$\leq 20$ milliseconds
DC Switching	<b>24VDC @ 2.4 Amps or 48VDC @ 1.8 Amps, max</b>
Type, Configuration	Latching Relay, 2PDT, no termination

#### Alarm and Control, M&C

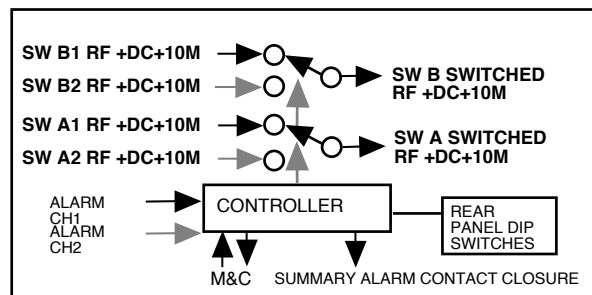
Alarm output signal	Form C relay: 30VDC, 0.5A max
M & C Interface/baud rate	RS232C or RS422/485, selectable/9600 (Ethernet Optional)

#### 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	75 $\Omega$ 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 $\pm 10\%$ VAC, 47 - 63 Hz, <b>30 Watts maximum power supplies</b>



**1582-122L BLOCK DIAGRAM**

#### Available Options

##### 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
- D - 50 $\Omega$  BNC
- SS - 50 $\Omega$  SMA

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