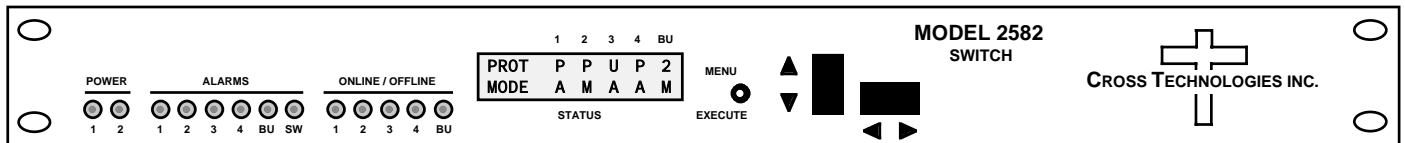


## 2582-144 Switch with Backup Controller, 1 for 4

The 2582-144 is a 1 for 4 Switch with Backup Controller for downloading and storing user variable data settings from the active, on-line agile, IF/L-Band to RF frequency converters and controlling the back-up frequency converter. The 2582-144 provides Auto, Remote, or Manual backup protection for up to 4 agile frequency converters by using a combination of IF/L-Band relay switches and RF transfer switches for the IF/L-Band and RF signals. The 2582-144 works with standard Cross IF/L-Band to RF up and downconverters by polling their monitor and control ports on a periodic basis, and storing the variable data of each active online converter. In the event of a failure, the failed converter's current data is downloaded into the backup converter and then the inputs and outputs are switched from the failed converter to the backup converter either automatically (when an alarm is detected from the failed unit), remotely, or manually. Manual switching overrides Remote and Auto switching, while Remote switching overrides Auto switching. Manual selection is made by the front panel multi-function, push-button switches. Remote selection is made via a rear panel female DB9 connector. The 2582-144 is powered by redundant 90-260 VAC power supplies and is housed in a 1 3/4" X 19" X 16" 1RU rack mount chassis.



**Front Panel**

### EQUIPMENT SPECIFICATIONS\*

#### IF/L-Band Switch Characteristics

|                |   |
|----------------|---|
| Impedance      | 50 $\Omega$   |
| Return Loss    | > 12 dB   |
| Type           | Relay   |
| Isolation      | > 55 dB, DC to 1.5 GHz;<br>> 50 dB, to 2.2 GHz;         |
| Switch time    | $\leq$ 100 milliseconds                                 |
| Insertion Loss | $\leq$ 1.5 dB, to 1.5 GHz;<br>$\leq$ 2.0 dB, to 2.2 GHz |
| Configuration  | 1 for 4, no termination                                 |

#### RF Switch Characteristics

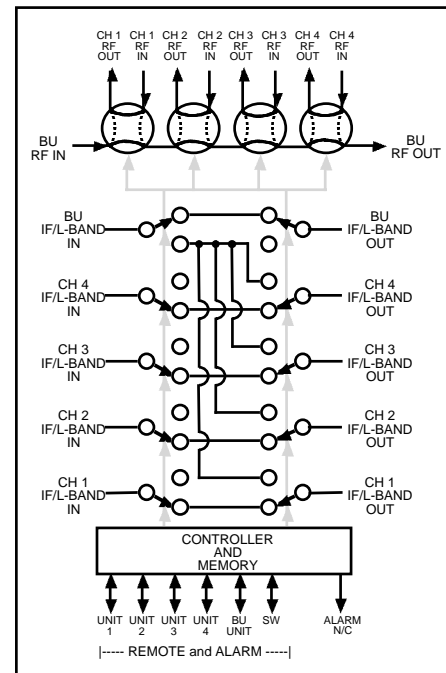
|                |  |
|----------------|--|
| Impedance      | 50 $\Omega$  |
| Return Loss    | > 12 dB  |
| Type           | RF Transfer  |
| Isolation      | > 60 dB, to 15 GHz                                   |
| Switch time    | $\leq$ 100 milliseconds                              |
| Insertion Loss | $\leq$ 1.5 dB, to 8 GHz;<br>$\leq$ 2.0 dB, to 15 GHz |
| Configuration  | 1 for 4, no termination                              |

#### Controls, Indicators

|                  |   |
|------------------|---|
| Manual Selection | Push-button switches                              |
| Remote Selection | RS 232C (RS 422/485, <b>option Q</b> ), 9600 baud |
| Power            | Green LEDs  |
| Alarms           | Red LEDs  |
| Online/Offline   | Green LEDs  |

#### Other

|                     |  |
|---------------------|--|
| RF Connectors       | SMA (female)   |
| L-Band Connectors   | BNC (female)   |
| Alarm/Remote Conn's | DB9 (female)   |
| Size                | 19 inch, 1RU standard chassis 1.75"high X 16.0" deep         |
| Power               | 90-260 VAC, 47-63 Hz, 45 watts max; Redundant power supplies |



**Block Diagram**

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