The 1:1 Redundant Switchover Unit is used with two units, one on-line (Unit A) and the second in a standby mode (Unit B). A fault condition in the on-line Unit A, or an operator generated command, will switch the standby Unit B to the on-line position and remove Unit A from the transmission path. The unit is equipped with fully redundant power supplies.

The 1:1 Redundant Switchover Unit is designed to ensure continuous operation allowing a unit fault to be repaired and/or routine maintenance to be performed without disruption of signal transmission.
**MODEL NUMBERS**

### 1:1 SWITCHOVER UNIT, SINGLE TRANSFER SWITCH MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency Range</th>
<th>Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSU-B</td>
<td>50–180 MHz</td>
<td>BNC</td>
</tr>
<tr>
<td>RSU-S</td>
<td>0.95–18.4 GHz</td>
<td>SMA</td>
</tr>
</tbody>
</table>

### 1:1 SWITCHOVER UNIT, DUAL TRANSFER SWITCH MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Switch 1 Frequency Range</th>
<th>Switch 2 Frequency Range</th>
<th>Switch 1 Connectors</th>
<th>Switch 2 Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSU-B/B</td>
<td>50–180 MHz</td>
<td>50–180 MHz</td>
<td>BNC</td>
<td>BNC</td>
</tr>
<tr>
<td>RSU-B/S</td>
<td>50–180 MHz</td>
<td>0.95–18.4 GHz</td>
<td>BNC</td>
<td>SMA</td>
</tr>
<tr>
<td>RSU-S/S</td>
<td>0.95–18.4 GHz</td>
<td>0.95–18.4 GHz</td>
<td>SMA</td>
<td>SMA</td>
</tr>
</tbody>
</table>

**RF SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Insertion Loss (Max.)</th>
<th>Amplitude Flatness /40 MHz (Max.)</th>
<th>Return Loss (Min.)</th>
<th>Isolation (Min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50–180 MHz</td>
<td>0.2 dB</td>
<td>0.2 dB</td>
<td>23 dB</td>
<td>80 dB</td>
</tr>
<tr>
<td>0.95–6.5 GHz</td>
<td>0.3 dB</td>
<td>0.2 dB</td>
<td>18 dB</td>
<td>60 dB</td>
</tr>
<tr>
<td>6.5–8.4 GHz</td>
<td>0.4 dB</td>
<td>0.2 dB</td>
<td>18 dB</td>
<td>60 dB</td>
</tr>
<tr>
<td>8.4–14.8 GHz</td>
<td>0.45 dB</td>
<td>0.2 dB</td>
<td>16 dB</td>
<td>60 dB</td>
</tr>
<tr>
<td>14.8–18.4 GHz</td>
<td>0.6 dB</td>
<td>0.4 dB</td>
<td>12 dB</td>
<td>55 dB</td>
</tr>
</tbody>
</table>

Notes: RF specifications apply to a single switch. IF switch (50–180 MHz) is 75 ohm impedance. 50 ohm IF impedance is available with Option 15.

**TYPICAL CONFIGURATIONS**

#### SINGLE TRANSFER SWITCH MODELS

#### DUAL TRANSFER SWITCH MODELS
MODES OF OPERATION
Local mode ............................................. Commands are received from the keys on the front panel.
Remote mode ......................................... Commands are received from a remote system controller via the remote interface connector.
All front panel keys are disabled with the exception of local/remote mode selection.
Automatic mode ..................................... Switchover occurs if a fault is detected in the on-line unit.
Manual mode .......................................... Switchover may be executed either via the front panel keys (local mode) or the remote interface (remote mode).

FRONT PANEL FUNCTIONS
Commands ............................................. Unit A: On line/standby
Unit B: On line/standby
Mode selection ....................................... Local/remote
Auto/manual

ALARMS (LED INDICATORS)
Unit A
Unit B
Power supply A
Power supply B
RSU

REMOTE
Commands............ Unit A: On line
Unit B: On line
Auto
Manual
Status............... Unit A: On line
Unit A: Standby
Unit B: On line
Unit B: Standby
Remote
Local
Auto
Manual
RSU normal
RSU fail
Unit A: Normal
Unit A: Fail
Unit B: Normal
Unit B: Fail

OPTIONS
15. 50 ohm IF impedance (50–180 MHz switches only).
17. Remote control.
   A. RS422.
   B. RS485 (standard).
   C. RS232.
   D. Contact closure.
   F. IEEE-488.

Note: Missing option numbers are not applicable to this product.
ONE RACK UNIT HIGH
1:1 REDUNDANT SWITCHOVER UNIT

PRIMARY POWER REQUIREMENTS
Voltage .................................................. 90–250 VAC
Frequency ............................................. 47–63 Hz
Power consumption............................... 25 W typical steady state, 75 W peak during switchover

SWITCH SPECIFICATIONS
Switch type ............................................ Coaxial, four-port transfer
Switch contacts ..................................... Break-before-make, wiping
Switch drive ........................................... Latching, sector motor
Switching speed .................................... 150 ms maximum

PHYSICAL
Weight ................................................... 20 pounds nominal
Overall dimensions................................ 19” x 1.75” panel height x 22” maximum (chassis depth
20” excluding protrusions)
Rear panel connectors
  Signal connectors
    IF ..................................................... BNC female
    RF................................................... SMA female
  Remote interface connectors ............ DE-9S for RS485 and RS422,
                                           DB-25P for RS232,
                                           DB-25S for contact closure,
                                           IEEE-488 receptacle for IEEE-488
DC voltage test points ........................... Jack receptacle
Alarm input .............................. DE-9P

ENVIRONMENTAL
Operating
  Ambient temperature ......................... 0 to 50°C
  Relative humidity ............................. Up to 95% at 30°C
  Atmospheric pressure ...................... Up to 10,000 feet
Nonoperating
  Temperature ..................................... -50 to +70°C
  Relative humidity ............................. Up to 95% at 40°C
  Atmospheric pressure ...................... Up to 40,000 feet
  Shock and vibration ........................ Normal handling by commercial carriers

Note: For literature describing local control (front panel) and remote control (bus protocols),
      refer to MITEQ's Technical Note 25T008.