



**“Results You Can Count On”**

## **Model 458-SM-2-16 2 x 16 Transparent Switching Module**

- **High Performance transparent solution designed to automate testing of ADSL, ADSL2, ADSL2+, & VDSL2 chip/modem/DSLAMs**
- **Bidirectional**
- **Low Crosstalk/Low Insertion Loss**
- **Plugs into Model 458-CC-16/458-CM (16-slot) or 458-3SLB (3-Slot) rack-mounted chassis**
- **Can be controlled remotely via RS-232, Ethernet or IEEE-488 (GPIB)**



*The Model 458-SM-2-16 is shown installed in the compact 458-3SLA (3-Slot) Chassis (sold separately).  
The front of the module has 16 connectors while the rear has 2.*

The Model 458-SM-2-16 Transparent Switching Module is a transparent, electrically neutral, multiplexing/demultiplexing device that allows up to sixteen incoming lines to share (be directed to) up to two independent local loop simulator output channels, or two incoming lines to share (be directed to) up to sixteen independent local loop simulator output channels. The user may select one or two of the inputs (or outputs) out of sixteen, with the unselected paths being terminated with 100 ohms.

This powerful module is plugged into our Model 458-3SLB (3-Slot) or 458-CC-16/458-CM (16-Slot) rack-mounted chassis where settings are controlled by RS-232, Ethernet or IEEE-488(GPIB). The modular design of Telebyte’s products allows the 458-SM-2-16 to be combined with our local loop simulator products for a wide variety of test configurations.



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**Model 458-SM-2-16**  
**2 x 16 Transparent Switching Module**  
 (continued)

<b>Product Specifications</b>	
<b>Signal Switching Capability</b>	<i>Multiplexing:</i> <ul style="list-style-type: none"> <li>• 16 balanced input lines to 1 of 2 balanced output lines (16x1); or</li> <li>• 16 balanced input lines to both balanced output lines (8x2)</li> </ul> <i>Demultiplexing:</i> <ul style="list-style-type: none"> <li>• 1 balanced input line to 16 balanced output lines (1x16); or</li> <li>• 2 balanced input lines to 8 balanced output lines each (2x8)</li> </ul>
<b>Insertion Loss</b>	Less than 0.5 dB from DC to 30 MHz Less than 1 dB up to 60 MHz
<b>Noise Floor</b>	Less than -140 dBm/Hz from DC to 30MHz
<b>Tip and Ring Balance</b>	Better than 53 dB up to 12 MHz Degrading by 20 dB per decade from 12 MHz to 30 MHz
<b>Return Loss</b>	26 dB minimum up to 30 MHz (100-ohm reference)
<b>Crosstalk Between Lines</b>	Maximum -90 dB up to a minimum frequency of 30 MHz
<b>Temperature</b>	Operating: 0°C to 50°C (32°F to 122°F) Storage -20°C to 70 °C (-18°F to 158°F)
<b>Operating Relative Humidity</b>	0% to 95% relative humidity (non-condensing)
<b>Dimensions</b>	Overall: 12.21”H x 0.86”W x 20.85”D (310mm H x 22mm W x 529mm D)
<b>Connectors</b>	16 RJ-45’s on front, 2 RJ-45’s on back
<b>Relay Cycles of Operation</b>	5,000,000 cycles
<b>Toxic Materials</b>	Complies with RoHS Directive

Specifications are subject to change without notice. Made in USA.

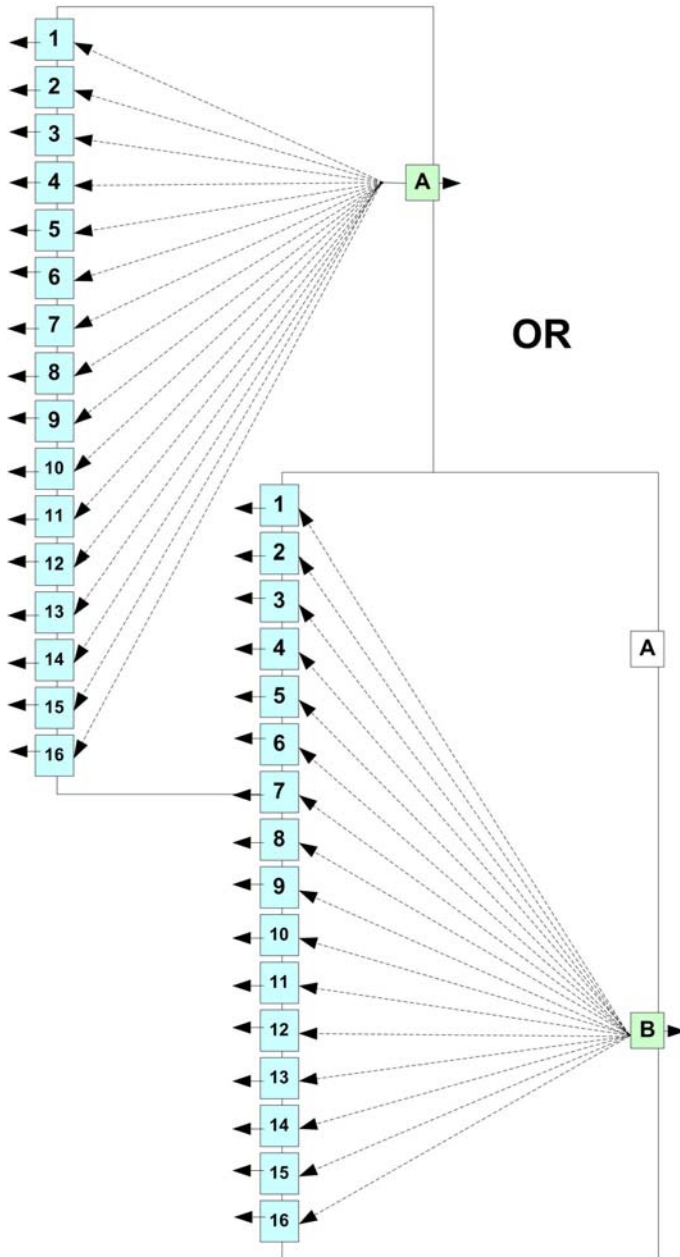


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### Model 458-SM-2-16 2 x 16 Transparent Switching Module

#### 1 x 16 Configurations:

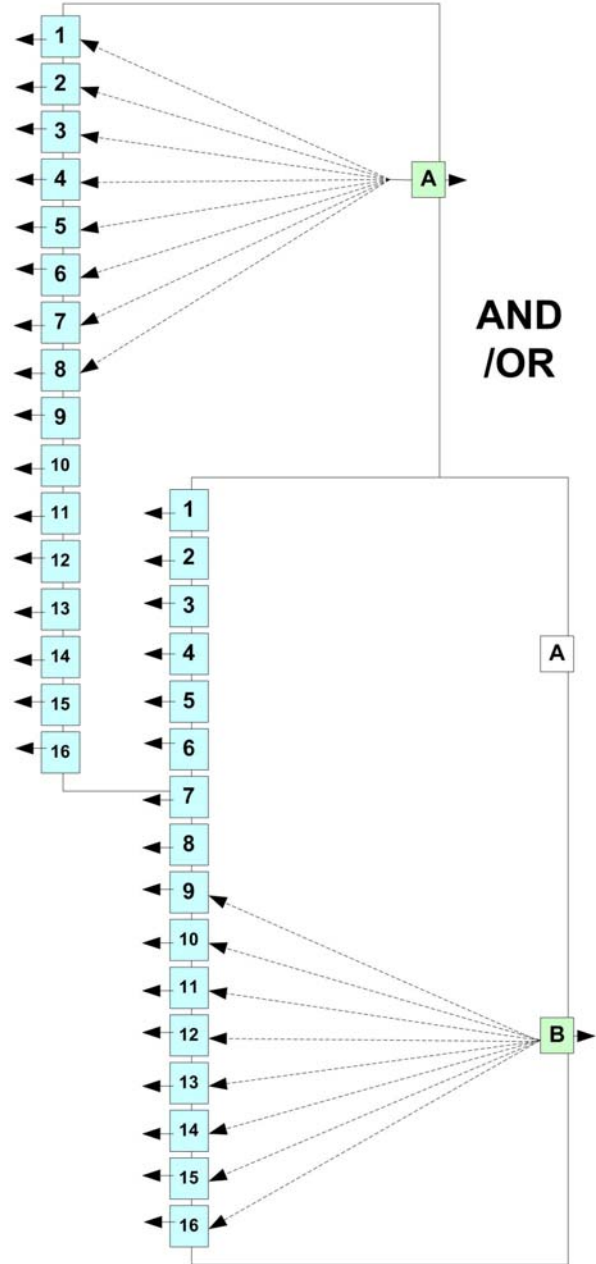
- #1: Connector A to 1-16
- #2: Connector B to 1-16



OR

#### 1 x 8 Configurations:

- #1: Connector A to 1-8 AND/OR
- #2: Connector B to 9-16



AND  
/OR

All unconnected  
ports terminated in 100 ohms