

Model 8501
High Power Programmable Switch



100 Watt Hot Switching Capability



Description

Aeroflex / Weinschel's 8501 Series provides front-panel and computer control for up to two channels of high power RF switching (Figure 1), where RF signals are routed through either the front or rear mounted switch port connectors labeled 1, C, 2.

Special configurations designed to specific customer requirements may contain other coaxial devices such as power combiners, directional couplers, and filters to create single or multi-channel subsystems. The 8501 can also contain and control a separate programmable attenuator channel.

Features

- /// Provides a flexible, easy to program, low cost solution for your bench test/calibration setups and subsystem applications.
- /// Single or Dual Switch Configurations
- /// DC to 13.0 GHz Operation.
- /// Power Hot switching up to 100 Watts average
- /// Designed to interface with industry standard communication interfaces:
 - GPIB/IEEE-488 (HS-488 ready)
 - RS-232, RS-422
- /// Rack Configurable: Using a Rack Mounting Kit allows the Model 8501 to be easily mounted into any rack or cabinet that is designed per EIA RS-310 or MIL-STD-189.

MODEL NUMBER DESCRIPTION:

Example:

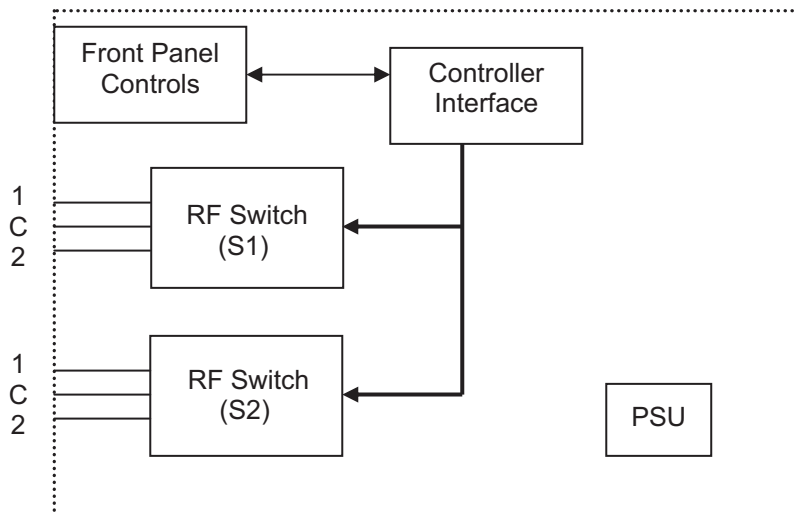
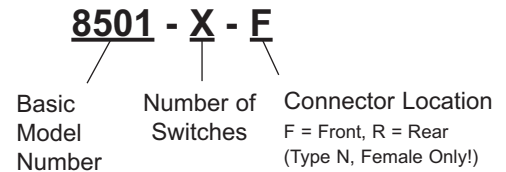


Figure 1. Model 8501 Block Diagram

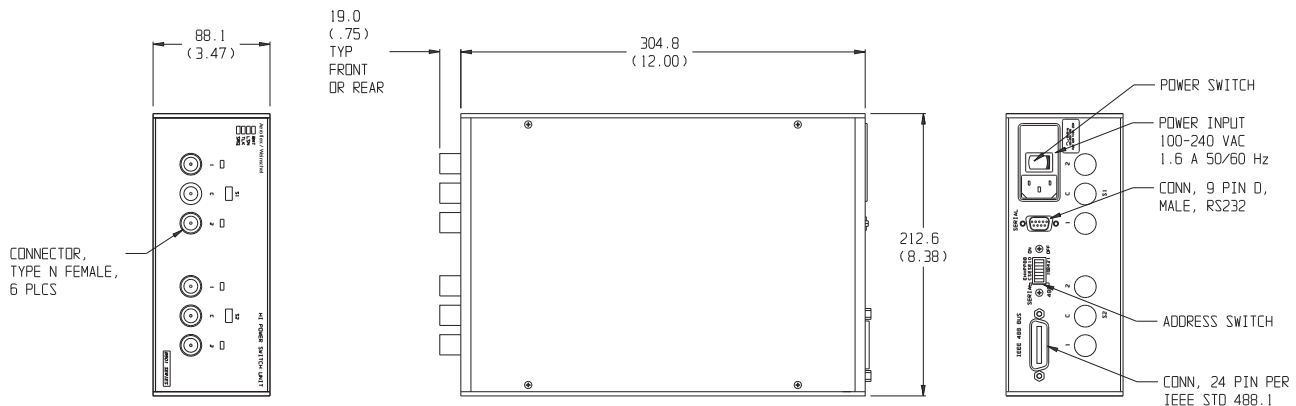
For additional information on the Model 8501, visit our website @ www.aeroflex.com/AW/8501.htm

Specifications

SPECIFICATION	DESCRIPTION																														
Input Power Requirements	AC 100 to 240 Vac, 50/60 Hz, 50 Watts																														
Environmental	Operating Temperature: 0 to +50°C Storage Temperature: 67° to +167 °F (-55° to +75°C) Humidity: 96% Altitude: 40,000' (12,192M)																														
IEEE-488 Bus	Connector: 24-pin per IEEE-488.1 Protocols: per IEEE-488.2 Indicators: Remote (RMT), Listen (LSN), Talk (TLK), SRQ (SRQ)																														
RS-232 Bus	Connector: 9-pin male D Signals: TXD, RXD, RTS, CTS, DTR, GND Baud Rates: 2400, 9600, 19200, and 38400 Data Bits: 8 Handshaking: None, RTS/CTS, XON/XOFF Parity: None, Odd, Even Indicators: Tx (Transmit) and Rx (Receive)																														
RS-422 BUS⁽³⁾	Connector: 9-pin male D Signals: TXD+, TDX-, RXD+, RTX-, RTS+, RTS-, CTS+, CTS-, and signal GND Baud Rates: 2400, 9600, 19200, and 38400 Data Bits: 8 Handshaking: None, RTS/CTS, XON/XOFF Parity: None, Odd, Even Indicators: Tx (Transmit) and Rx (Receive)																														
RF Characteristics	Port Connectors: Type N, Female Frequency Range: dc - 13 GHz Impedance: 50 Ω <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th style="text-decoration: underline;">DC to 3</th> <th style="text-decoration: underline;">3 to 5</th> <th style="text-decoration: underline;">5 to 11</th> <th style="text-decoration: underline;">11 to 13</th> </tr> </thead> <tbody> <tr> <td>SWR (maximum):</td> <td>1.25</td> <td>1.45</td> <td>1.70</td> <td>1.70</td> </tr> <tr> <td>Insertion Loss (dB maximum):</td> <td>0.25</td> <td>0.30</td> <td>0.50</td> <td>0.65</td> </tr> <tr> <td>Isolation (dB maximum):</td> <td>70</td> <td>60</td> <td>50</td> <td>50</td> </tr> <tr> <td>RF Average Power Handling (CW):</td> <td colspan="4">100 W to 3 GHz 50 W to 13 GHz</td> </tr> <tr> <td>Hot Switch Cycling:</td> <td colspan="4">100K @ 100 Watts CW @ 2 GHz</td> </tr> </tbody> </table>		DC to 3	3 to 5	5 to 11	11 to 13	SWR (maximum):	1.25	1.45	1.70	1.70	Insertion Loss (dB maximum):	0.25	0.30	0.50	0.65	Isolation (dB maximum):	70	60	50	50	RF Average Power Handling (CW):	100 W to 3 GHz 50 W to 13 GHz				Hot Switch Cycling:	100K @ 100 Watts CW @ 2 GHz			
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1. GPIB/IEEE-488 model allows user-selectable addresses
2. RS-232 can be used with standard PC serial port for short and medium distances (up to approximately 50 ft).
3. RS-422, designed for very long distance communications (4000 ft) and optimized as a single node protocol, typically with one device connected to a single port.

Physical Dimensions



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

8501-2-F SHOWN