

## Model 8501 High Power Programmable Switch 100 Watt Hot Switching Capability



RS232\RS422



### 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:

**8501 - X - E**

Basic Model Number

Number of Switches

Connector Location  
F = Front, R = Rear  
(Type N, Female Only!)

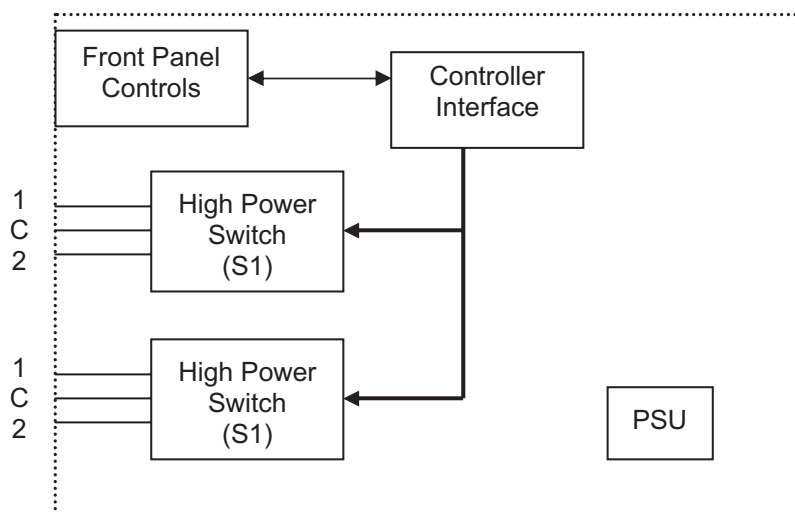


Figure 1. Model 8501 Block Diagram

For additional information on the Model 8501, visit our website @ [www.aeroflex.com/AW/8501.htm](http://www.aeroflex.com/AW/8501.htm)

## Specifications

SPECIFICATION	DESCRIPTION	
<b>Input Power Requirements</b>	AC	100 to 240 Vac, 50/60 Hz, 50 Watts
<b>Environmental</b>	Operating Temperature	0 to +50°C
	Storage Temperature:	67° to +167 °F (-55° to +75°C)
	Humidity:	96%
	Altitude:	40,000' (12,192M)
<b>IEEE-488 Bus</b>	Connector:	24-pin per IEEE-488.1
	Protocols:	per IEEE-488.2
	Indicators:	Remote (RMT), Listen (LSN), Talk (TLK), SRQ (SRQ)
<b>RS-232 Bus</b>	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)
<b>RS-422 BUS<sup>(3)</sup></b> signal GND	Connector:	9-pin male D
	Signals:	TXD+, TDX-, RXD+, RTX-, RTS+, RTS-, CTS+, CTS-, and
	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)
<b>RF Characteristics</b>	Port Connectors:	Type N, Female
	Frequency Range:	dc - 13 GHz
	Impedance:	50 Ω
		<u>DC to 3</u> <u>3 to 5</u> <u>5 to 11</u> <u>11 to 13</u>
	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

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

