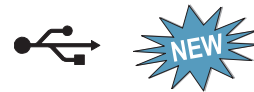


Model 8502
Programmable Switch Unit
Local, Ethernet, USB & RS-232 Control

up to 18 GHz



Features

- /// Can be configured with up to 14 each, SP6T Switches
- /// Front panel local control and display make it ideal for lab and manual test environments
- /// DC to 18 GHz Operating Frequency Range
- /// Integrated Switch Cycle Counter
- /// Failsafe & Latching switching configurations available
- /// Accuracy & Repeatability.
- /// Low Insertion Loss and High Isolation
- /// Supplied with industry standard communication interfaces:
 - Ethernet (10/100 BaseT)
 - USB 2.0
 - RS-232 (Serial)
 - GPIB/IEEE-488 (HS-488 ready) optional
- /// Labview based Attenuation Control Software included
- /// Compact 2 RU, 19" Rack Mount Configuration

Applications

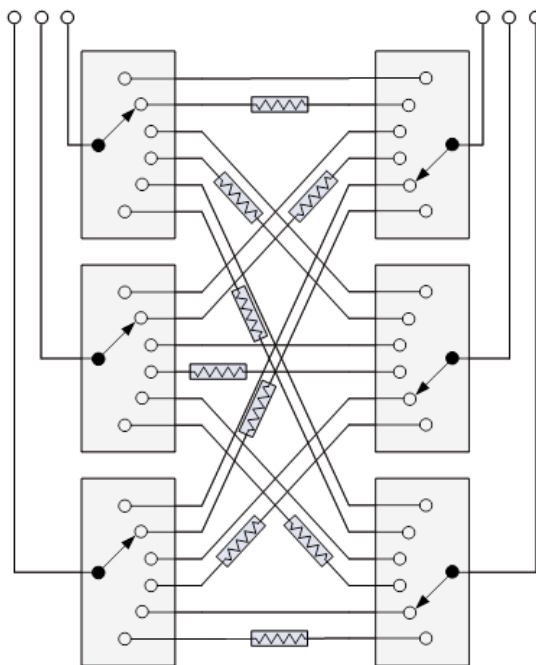
- /// User can remotely control up to 14 switches through a single connection
- /// Can be configured into multiple full-blocking matrices using external coaxial cables. Some examples for these matrices are: 2 x 2 and 3 x 3 with redundant paths, up to 6 x 6
- /// Can also be configured as a single pole, multi-throw (up to 1 x 66 throw) switch in addition to many other complex switching configurations
- /// The Failsafe version has a break-before-make operation which is suitable for non-contiguous applications while the Latching version has a make-before-break that can be suitable for high power signals

Description

Aeroflex / Weinschel's 8502 Series Programmable Switches represent a new streamlined approach in programmable switches for bench test and subsystem applications. Standard 8502 Series designs house and control up to 14 failsafe or latching electrometrical switches via front panel controls, Ethernet, USB and Serial communications interfaces. A GPIB/IEEE-488 interface is also available as an option.

The 8502 Series can be configured as a single input multi-channel configuration or can be configured for up to 14 channels each, SP6T switches interconnected externally in a variety of matrix arrangements or used independently.

Aeroflex / Weinschel also provides custom subsystems where a variety of test configurations can be incorporated within a single unit. Contact us with your specialized needs.



Sample Application Diagram

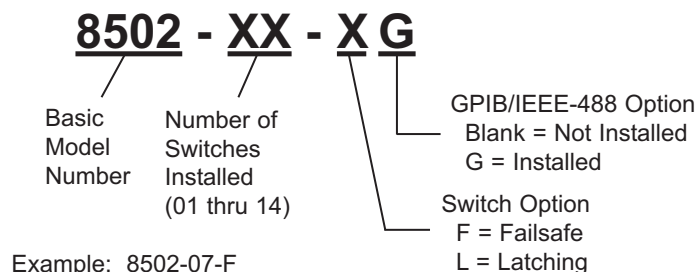
For additional information on the Model 8502, visit our website @ www.aeroflex.com/AW8502

Specifications

SPECIFICATION	DESCRIPTION																									
Input Power Requirements	ac 100 to 240 Vac, 50/60 Hz, 180 Watts																									
Environmental	Operating Temperature: 0° to +50°C Storage Temperature: -40° to +167 °F (-40° to +75°C) Humidity: 96% (non-condensing) Altitude: 40,000' (12,192M)																									
RS-232 Bus (1) Serial I/O	Connector: 9-pin male D Signals: TXD, RXD, RTS, CTS, GND Baud Rates: 9600 to 230400 Data Bits: 8 Handshaking: None, RTS/CTS Parity: None																									
USB 2.0	Connector: Mini B																									
Ethernet	10/100 Base T Connector: Standard RJ45																									
IEEE-488 Bus (2) (GPIB option)	Connector: 24-pin per IEEE-488.1 Protocols: per IEEE-488.2																									
RF Characteristics	Nominal Impedance: 50 Ω Frequency Range: DC-18 GHz <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>DC-3</th> <th>3-8</th> <th>8-12.4</th> <th>12.4-18</th> </tr> </thead> <tbody> <tr> <td>VSWR (maximum):</td> <td>1.2:1</td> <td>1.3:1</td> <td>1.4:1</td> <td>1.5:1</td> </tr> <tr> <td>Insertion Loss (maximum):</td> <td>0.2 dB</td> <td>0.3 dB</td> <td>0.4 dB</td> <td>0.5 dB</td> </tr> <tr> <td>Isolation (minimum):</td> <td>75 dB</td> <td>70 dB</td> <td>60 dB</td> <td>60 dB</td> </tr> <tr> <td>Average Power (Typical)⁽³⁾:</td> <td>95 W</td> <td>55 W</td> <td>45 W</td> <td>35 W</td> </tr> </tbody> </table> Switching Action: Failsafe to Open (For Switch Option "F") Make Before Break (For Switch Option "L") Switching Time (maximum): 15 msec Life (minimum per position) ⁽³⁾ : 1 X 10 ⁶ cycles		DC-3	3-8	8-12.4	12.4-18	VSWR (maximum):	1.2:1	1.3:1	1.4:1	1.5:1	Insertion Loss (maximum):	0.2 dB	0.3 dB	0.4 dB	0.5 dB	Isolation (minimum):	75 dB	70 dB	60 dB	60 dB	Average Power (Typical) ⁽³⁾ :	95 W	55 W	45 W	35 W
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- RS-232 can be used with standard PC serial port for short and medium distances (up to approximately 50 ft).
- GPIB/IEEE-488 model allows user-selectable addresses, (Not included on standard models, must be ordered as an option).
- Hot switching is limited to 1 W CW maximum switching at higher power levels will reduce the life or the switch in terms of insertion loss accuracy repeatability.

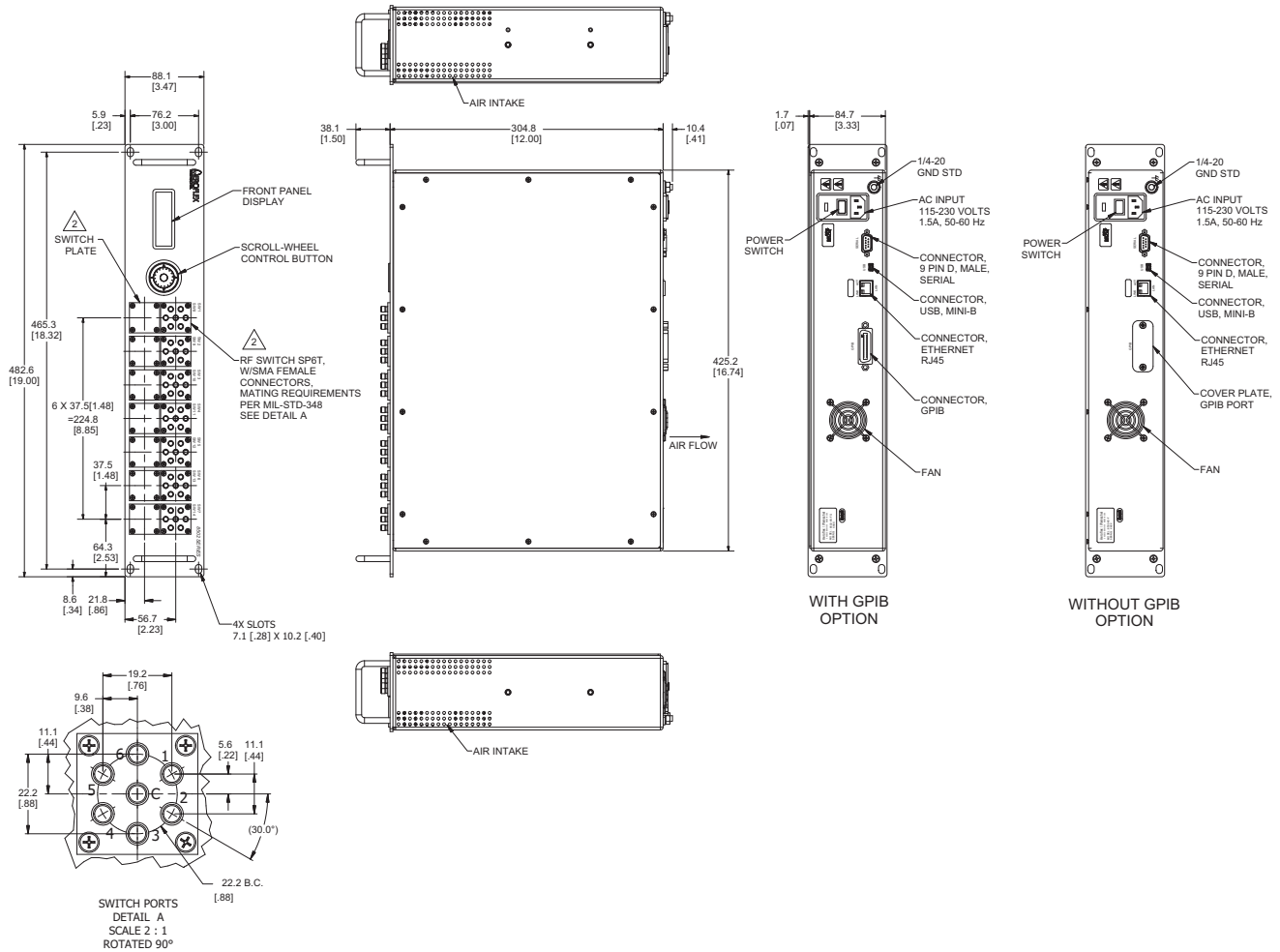
Model Number Configuration Matrix



Programmable Switches



Physical Dimensions



NOTE:

1. All dimensions are given in mm (inches).
2. RF Switches and switch plates as required and determined by configuration. Seven switch unit configuration shown.