Model Numbering System

Example: SPDT-0A-18A-D-S9

SPDT - 0 A - 18 A - D - S9

TYPE
- SPDT
- TRAN
- SPMT
- MSPDT
- MSPMT
- MTRAN
- Multi-Port Matrix

CONTROL OPTIONS

SPDT / TRAN

Not specified: Pin Terminal Control
S9: 9Pins D-Sub Control
S15: 15Pins D-Sub Control

SPMT

Not specified: D-Sub Control
PIN: Pin Terminal Control

CONNECTOR
- 0: SMA
- 1: N
- 2: TNC
- 3: RF PIN
- 4: F
- 5: NC
- 6: CUSTOM

OPTIONS
- C: Custom
  - Customer specified requirements
- D: TTL Driver
  - Available for all models
- N: Narrow Body
  - SPDT only
- P: Positive + Common
  - Latching and Normally Open only
- S: Self Cutoff
  - Latching only
- T: Internal Terminations
  - SPDT/SPMT, SMA models only

ACTUATOR TYPE
- A: Failsafe without Indicator
- B: Failsafe with Indicator
- C: Latching without Indicator
- D: Latching with Indicator
- E: Normally open without Indicator
- F: Normally open with Indicator

ACTUATOR VOLTAGE
- A: 12VDC
- B: 15VDC
- C: 28VDC
- D: 24VDC
- E: 20VDC
- F: 5VDC

FREQUENCY RANGE
- 03: DC-3GHz
- 08: DC-8GHz
- 12: DC-12GHz
- 18: DC-18GHz
- 22: DC-22GHz
- 26: DC-26.5GHz

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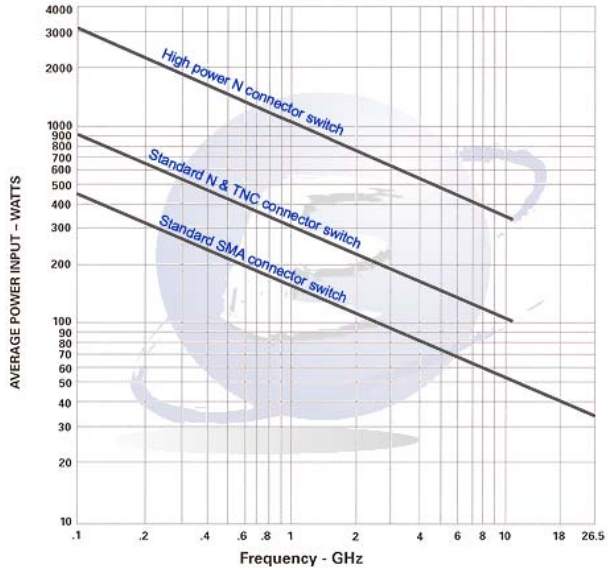
Power Handling



Mechanical Specification

Switch Type:	Electromechanical, Coaxial
RF Contacts:	Break before Make
Characteristic Impedance:	50Ω (75Ω available for SPDT upon request)
Temperature Range:	-25°C to +65°C Operating (wider range upon request)
Humidity:	Moisture Seal Available
Shock:	MIL-STD-202 Method 213, Condition D (500G Non Operating)
Vibration:	MIL-STD-202 Method 214, Condition D (10G RMS Non Operating)
Operating Life:	1 Million Cycles
MTBF:	MIL-HDBK-217F Fixed, 25°C, <1 Cycle per hour

Note: Power handling measurements of switches are made with the assumption of VSWR 1.10:1

RF Performance

SPDT Series

	DC-6GHz	6-12GHz	12-18GHz	18-26.5GHz
VSWR (max.)	1.25 : 1	1.40 : 1	1.50 : 1	1.80 : 1
Insertion Loss (max.)	0.20 dB	0.40 dB	0.50 dB	0.70 dB
Isolation (min.)	70 dB	60 dB	60 dB	50 dB

SPMT Series

	DC-6GHz	6-12GHz	12-18GHz	18-26.5GHz
VSWR (max.)	1.25 : 1	1.40 : 1	1.50 : 1	2.00 : 1
Insertion Loss (max.)	0.20 dB	0.40 dB	0.50 dB	0.80 dB
Isolation (min.)	70 dB	60 dB	60 dB	50 dB

TRAN Series

	DC-6GHz	6-12GHz	12-18GHz	18-26.5GHz
VSWR (max.)	1.25 : 1	1.40 : 1	1.50 : 1	2.00 : 1
Insertion Loss (max.)	0.20 dB	0.40 dB	0.50 dB	0.80 dB
Isolation (min.)	70 dB	60 dB	60 dB	50 dB

MULTI-PORT MATRIX Series

	DC-6GHz	6-12GHz	12-18GHz
VSWR (max.)	1.25 : 1	1.50 : 1	1.60 : 1
Insertion Loss (max.)	0.20 dB	0.50 dB	0.60 dB
Isolation (min.)	70 dB	60 dB	50 dB

SWITCHING MATRIX Series

	DC-4GHz	4-8GHz	8-12GHz	12-18GHz
VSWR (max.)	1.25 : 1	1.40 : 1	1.50 : 1	1.80 : 1
Insertion Loss (max.)	0.50 dB	2.00 dB	2.50 dB	3.00 dB
Isolation (min.)	75 dB	70 dB	65 dB	60 dB

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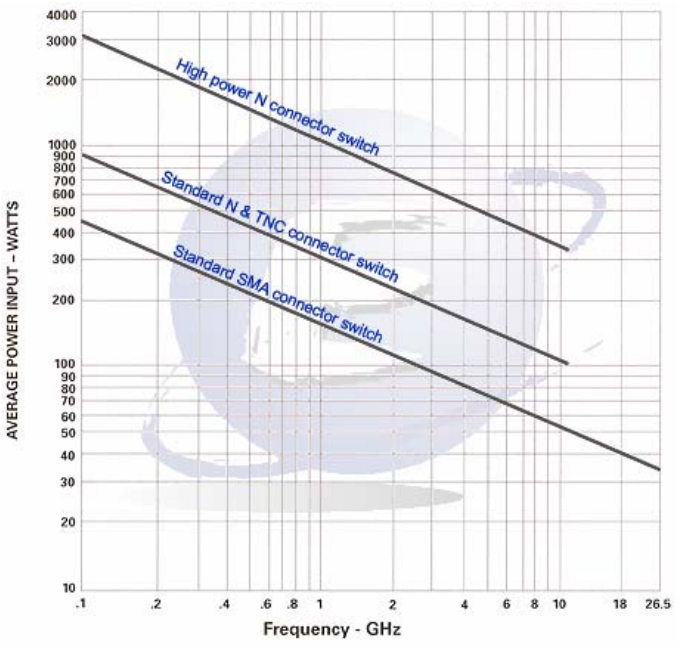
The 2P3T (2 Pole - 3 Throw) is a coaxial switch designed to switch a microwave signal from a common input to either of the two outputs. It can be used as a SPDT switch with external termination. The characteristic impedance is 50 Ohms. In a latching switch, the switch remains in the position set by the input control voltage when power is removed. In the failsafe switch, removal of the control voltage results in the switch returning to the selected (failsafe) or default position. See Model Numbering System for other options.

Specifications:

Switch Type:	Electromechanical, Coaxial
RF Contacts:	Break before Make
Actuator:	Failsafe, Latching, 12/15/24/28 VDC
Switching Time:	20ms (max)
Connectors:	SMA (female)
Temperature Range:	- 25^{o}C to + 65^{o}C
Humidity:	Moisture Seal Available (Optional)
Shock:	MIL-STD-202 Method 213, Condition D (500G Non Operating)
Vibration:	MIL-STD-202 Method 214, Condition D (10G RMS Non Operating)
Operating Life:	1 million cycles (min)
MTBF	6.8 million hours (MIL-HDBK-217F Fixed, 25^{o}C, <1 Cycle per hour)



Power Handling

Note: The power handling measurements of switches are made with the assumption of VSWR 1.10:1.

	VSWR (max.)	Insertion Loss (max.)	Isolation (min.)
DC–6GHz	1.25 : 1	0.20 dB	70 dB
6–12GHz	1.40 : 1	0.40 dB	60 dB
12–18GHz	1.50 : 1	0.50 dB	60 dB
18–26.5GHz	1.80 : 1	0.70 dB	50 dB

Model Numbering System

2 P 3 T - 0 A - 18 A - D

TYPE
2P3T

CONNECTOR
0: SMA

ACTUATOR TYPE
A: Failsafe without Indicator
B: Failsafe with Indicator
C: Latching without Indicator
D: Latching with Indicator

OPTIONS
C: Custom
D: TTL Driver
P: Positive + Common
S: Self Cutoff
T: Internal Termination

ACTUATOR VOLTAGE
A: 12VDC C: 28VDC
B: 15VDC D: 24VDC

FREQUENCY RANGE
03: DC-3GHz 18: DC-18GHz
08: DC-8GHz 22: DC-22GHz
12: DC-12GHz 26: DC-26.5GHz

Specifications subject to change without notice

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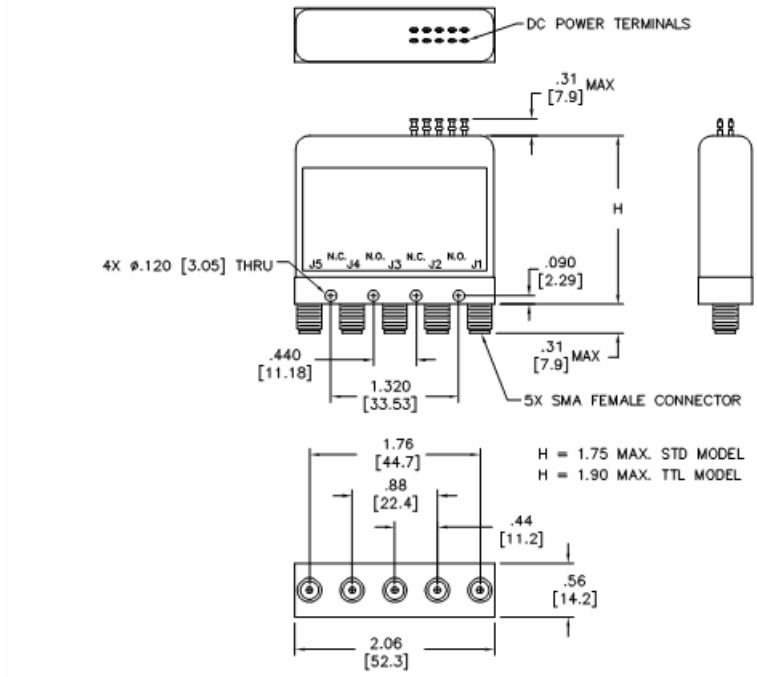
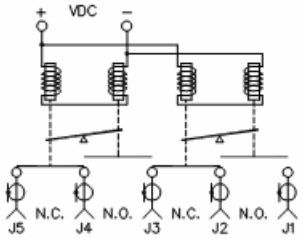
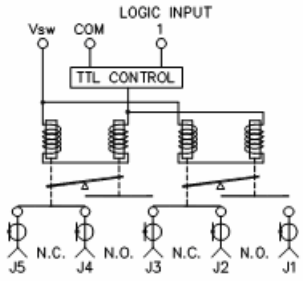
Failsafe Drawing **(Dimensions in inches and [mm])**

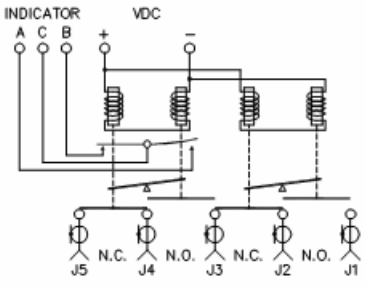




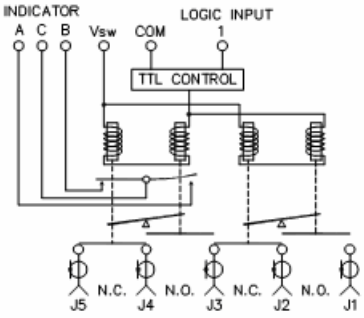
Failsafe



Failsafe W/ TTL

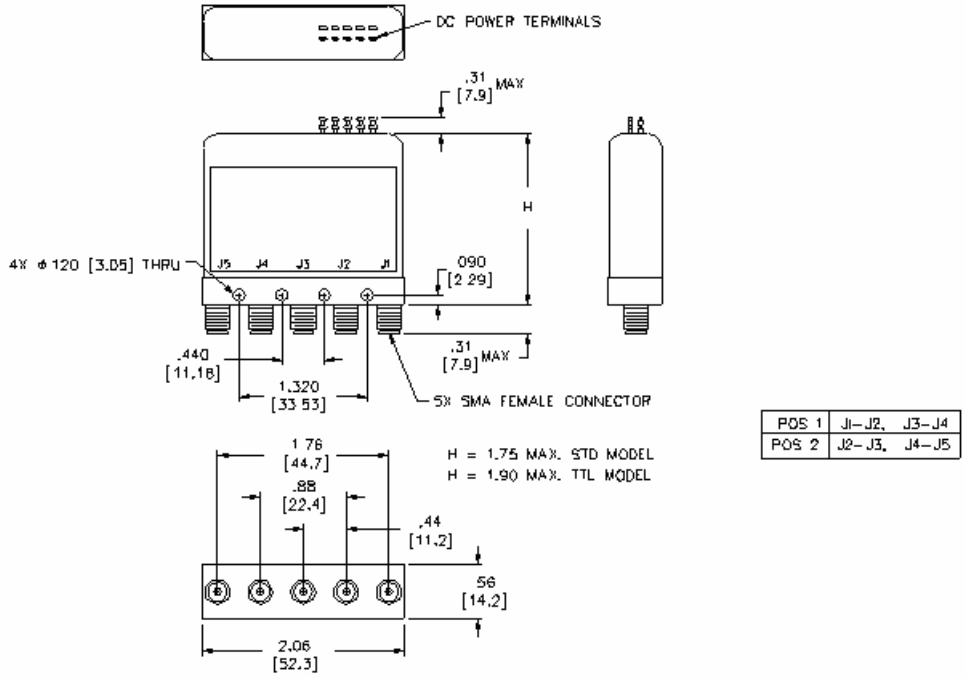


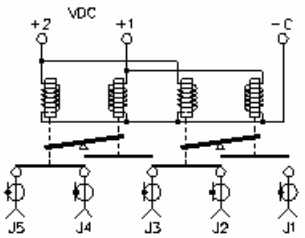
Failsafe W/ Indicator



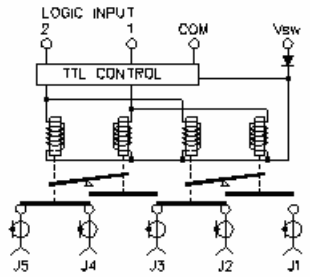
Failsafe W/ Indicator and TTL

Latching Drawing

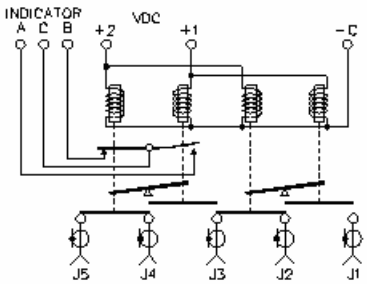




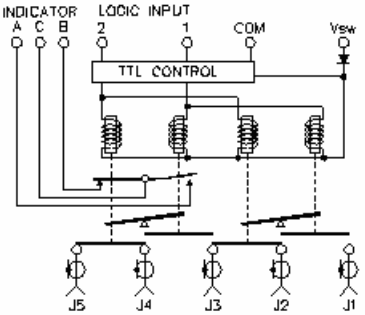
Latching



Latching W/ TTL



Latching W/ Indicator



Latching W/ Indicator and TTL