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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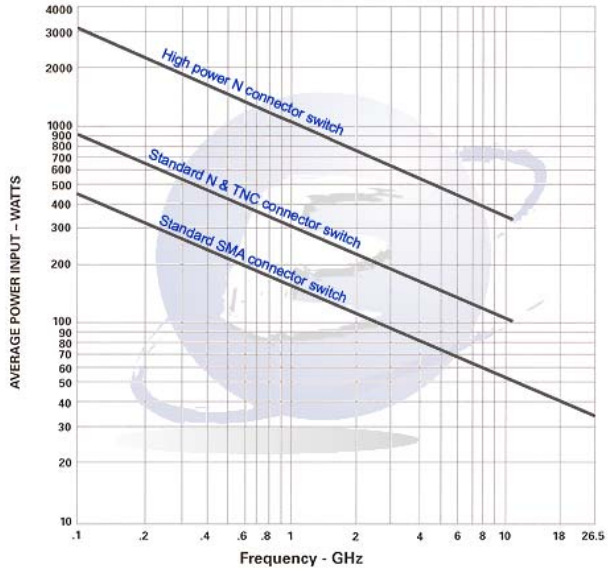
Power Handling



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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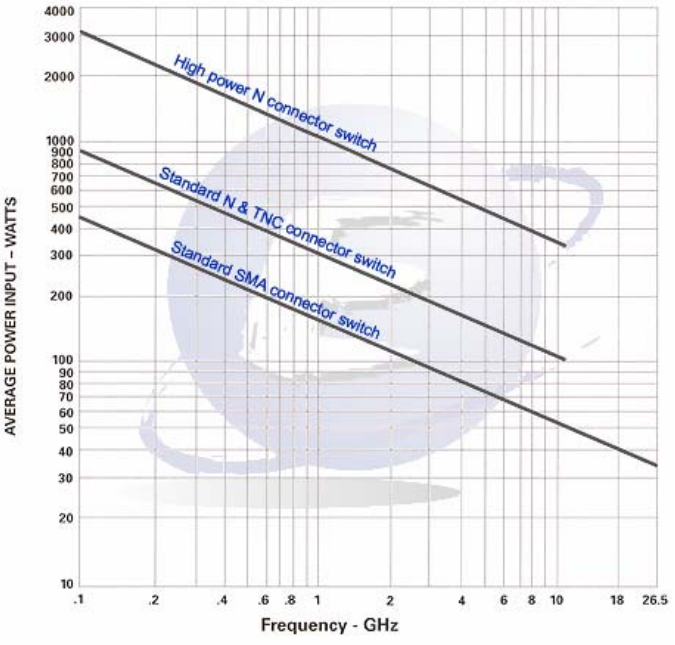
The MSPMT series coaxial switches are designed to switch a microwave signal from a common input to multiple outputs. They have an operating temperature range –54°C to +85°C. Characteristic impedance of the switches is 50 Ohms. The connectors are equally spaced on a circle at diameter 1.062". Normally open and latching actuator are available, the individual actuator mechanism allows random position selection. See the Model Numbering System for other options.

Specifications:

Switch Type:	Electromechanical, Coaxial
RF Contacts:	Break before Make
Actuator:	Normally Open or Latching, 12/15/24/28 VDC
Switching Time:	20ms (max)
Connectors:	SMA/N/TNC (female)
Temperature Range:	- 54°C to + 85°C
Humidity:	100% Humidity, No Condensation
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	6.0 Million Hours (MIL-HDBK-217F Fixed, 25°C, <1 Cycle per Hour)



Power Handling*

RF Performance**

	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	2.00 : 1	0.80 dB	50 dB

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

**Note: RF performance data are for SMA standard models.

Model Numbering System

MSPMT - 0 E - 18 A - D

TYPE
MSPMT

CONNECTOR
0: SMA
1: N
2: TNC
5: Custom

ACTUATOR TYPE
C: Latching without Indicator
D: Latching with Indicator
E: Normally Open without Indicator
F: Normally Open with Indicator

OPTIONS
D: TTL Driver
P: Positive + Common
T: Internal Termination

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

FREQUENCY RANGE
18: DC-18GHZ
22: DC-22GHZ
26: DC-26.5GHZ

Specifications subject to change without notice

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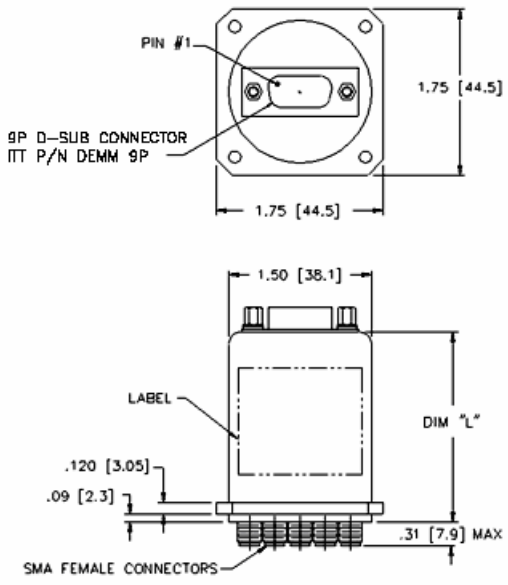
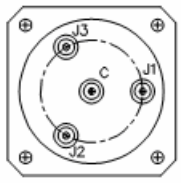
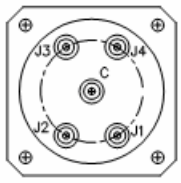
Normally Open Drawing **(Dimensions in inches and [mm])**

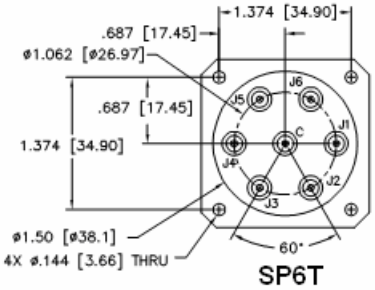




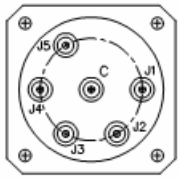
SP3T



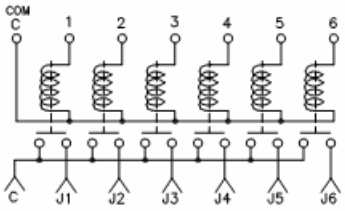
SP4T



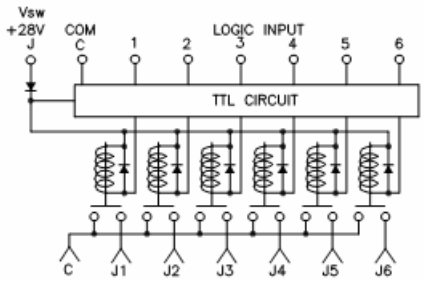
SP6T



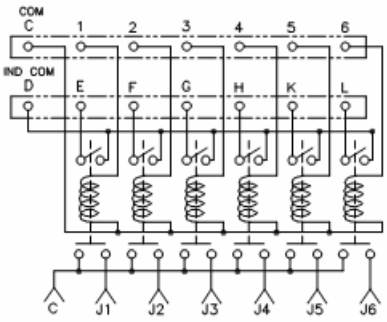
SP5T



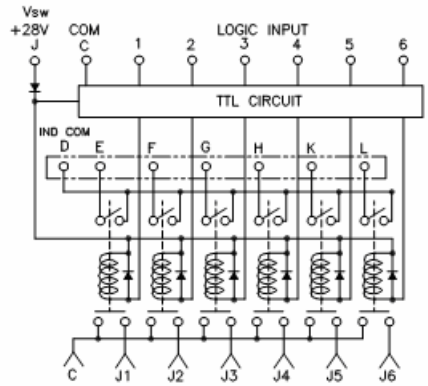
Normally Open



Normally Open W/ TTL



Normally Open W/ Indicator



Normally Open W/ Indicator and TTL