



Coaxial Components

0.5-18 GHz SOLID STATE SWITCHES SP1T — SP2T — SP3T — SP4T

	SP1T reflective	SP2T reflective	SP3T reflective	SP4T reflective
Frequency	0.5-18.0 GHz	0.5-1.8 GHz	0.5-1.8 GHz	0.5-1.8 GHz
Insertion Loss	2.5 dB	2.5 dB	3.0 dB	3.0 dB
Isolation	80 dB, 2-18.0 GHz, 37 dB 5-2.0 GHz	60 dB	55 dB	55 dB
VSWR input	1.8:1 max	2.0:1 max	2.0:1 max	2.0:1 max
VSWR output	1.8:1 max	2.0:1 max	2.0:1 max	2.0:1 max
Switching speed (off-on)	20 ns max (50% TTL to 90% RF)	250 ns max (50% TTL to 10% RF)	250 ns max (50% TTL to 10% RF)	250 ns max (50% TTL to 10% RF)
Switching speed (on-off)	20 ns max (50% TTL to 90% RF)	250 ns max (50% TTL to 10% RF)	250 ns max (50% TTL to 10% RF)	250 ns max (50% TTL to 10% RF)
Control logic TTL	1 line, logic 1 path on +15VDC at 40 mA, -15VDC at 40 mA	2 line, logic 1 path on +5VDC at 40 mA, -15VDC at 40 mA	3 line, logic 1 path on +5VDC at 60 mA, -15VDC at 40 mA	4 line, logic 1 path on +5VDC at 150 mA, -15VDC at 50 mA
DC Power	+10 dBm spec compliant, +30 dBm survival (CW)	+10 dBm spec compliant, +30 dBm survival (CW)	+10 dBm spec compliant, +30 dBm survival (CW)	+10 dBm spec compliant, +38 dBm survival (CW)
RF Power	75 Watt, 1 μs pulse width	75 Watt, 1 μs pulse width	75 Watt, 1 μs pulse width	75 Watt, 1 μs pulse width

ELECTRO/MECHANICAL SINGLE POLE DOUBLE THROW SWITCHES

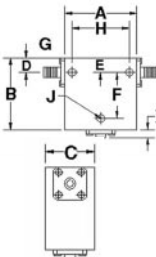


Model SPDT -18-28V-SF Specifications

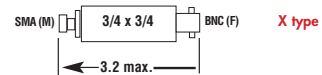
Operating freq. (GHz):	DC-3	3 - 8	8 - 12	12.4 - 18	18 - 22
VSWR (maximum):	1.2:1	1.3:1	1.4:1	1.5:1	1.6:1
Insertion Loss (max):	0.2 dB	0.3 dB	0.4 dB	0.5 dB	0.6 dB
Isolation (min.):	80 dB	70 dB	60 dB	60 dB	55 dB
Actuating voltage:	24-30 VDC (28 VDC nominal)				
Actuating current:	160 mA maximum at 28 VDC and 72 F				
Impedance:	50 ohms				
Switching time:	15 ms maximum				
Operating mode:	Failsafe				
Operating Temp:	-35 °C to +85 °C				
Operating life:	1,000,000 cycles				

CIRCULATOR / ISOLATOR

Outline Number	Dim. A		Dim. B		Dim. C		Dim. D		Dim. E		Dim. F		Dim. G		Dim. H		Dim. I		Dim. J	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
1	2.60	2.60	0.75	0.28	0.37	2.00	0.30	2.00	.17	4-40 x .15										
2	1.62	1.72	0.69	0.35	0.35	1.25	0.12	1.38	.17	4-40 x .15										
3	1.25	1.25	0.70	0.25	0.25	0.80	.125	1.00	.17	2-56 x .14										
4	1.00	1.00	0.50	0.25	0.25	-	.09	0.82	.17	2-56 x .13										
5	0.75	0.75	0.50	0.25	0.25	-	.062	.625	.17	2-56 x .13										
6	0.50	0.50	.375	0.19	0.19	-	.08	0.34	.17	0-80 x .10										
7	0.50	0.62	0.50	0.25	0.19	-	.08	0.34	.17	0-80 x .13										

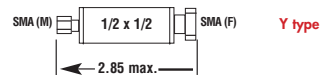


MICROWAVE NOISE GENERATORS



1.5 dB Noise Figure Meter Compatible Noise Sources

Model No.	Freq (GHz)	Noise Output (ENR -dB)	VSWR(max) ON/OFF	Calibration Frequencies
MN2-1	1-2	15.5 +/- 0.5	1.20:1	1, 1.5, 2 GHz
MN4-2	2-4	15.5 +/- 0.5	1.20:1	
MN8-4	4-8	15.5 +/- 0.5	1.20:1	
MN12-8	8-12	15.5 +/- 0.5	1.35:1	
MN18-12	12-18	15.5 +/- 0.5	1.35:1	1 GHz steps



High Noise Output Noise Sources

Model No.	Freq (GHz)	Noise Output (ENR -dB)	Flatness dB	Calibration Frequencies
MHN2-1	1-2	30-35	±1	1, 1.5, 2 GHz
MHN4-2	2-4	30-35	±1	
MHN8-4	4-8	30-35	±1	
MHN12-8	8-12	28-33	±1	
MHN18-12	12-18	28-33	±1	1 GHz steps

Frequency GHz	ISO (dB)		Loss(dB)		VSWR		Power (Watts)			Model Number		Outline No.	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Forward	PK	CW	CW	CW		See Note
1.0-2.0	20	17	0.35	0.5	1.25	1.35	100	25	1		C2-1	I2-1	1
2.0-4.0	20	18	0.35	0.5	1.25	1.30	200	50	1		C4-2	I4-2	2
2.6-5.2	20	18	0.35	0.5	1.25	1.30	300	50	1		C5.2-2.6	I5.2-2.6	3
3.0-6.0	20	18	0.35	0.5	1.25	1.30	400	50	1		C6-3	I6-3	3
4.0-8.0	20	18	0.35	0.5	1.25	1.30	400	50	1		C8-4	I8-4	4
5.0-10.0	20	18	0.35	0.5	1.25	1.30	400	50	1		C10-5	I10-5	4
6.0-12.0	20	18	0.40	0.6	1.25	1.30	500	50	1		C12-6	I12-6	5
6.2-18.0	13	12	0.80	1.0	1.56	1.67	200	60	1		C18-6	I18-6	6
8.0-12.4	20	18	0.40	0.5	1.25	1.30	200	60	1		C12-8	I12-8	7
8.0-18.0	16	14	0.60	0.7	1.40	1.50	200	60	1		C18-8	I18-8	7
12.0-18.0	20	18	0.50	0.6	1.25	1.30	200	60	1		C18-12	I18-12	7

Note: IFI Standard Parts come with Female Connectors In and Out
For Male In and Female Out use M/F after Part Number
For Female In and Male Out use F/M after Part Number
Example: AT c1-2/M/F

OPTIONS:
1. X or Y housing may be selected for either series by changing of a model no. suffix.
2. For other packages or connectors consult factory
3. Output between 6 dB and listed high output levels of ENR are available on special order

Specifications
Input power +28VDC at 20 mA max

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