



0.5-18 GHz PIN DIODE SWITCHES SP1T — SP2T — SP3T — SP4T

SP1T reflective

SP2T reflective

SP3T reflective

SP4T reflective

Model No.	S1517D	S2317D	S3317D	S4317D
Frequency	0.5-18.0 GHz	0.5-18.0 GHz	0.5-18.0 GHz	0.5-18.0 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	2 line, logic 1 path on	3 line, logic 1 path on	4 line, logic 1 path on
DC Power	+15VDC at 40 mA, -15VDC at 40 mA	+5VDC at 40 mA, -15VDC at 40 mA	+5VDC at 60 mA, -15VDC at 40 mA	+5VDC at 150 mA, -15VDC at 50 mA
RF 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)
Peak Power	75 Watt, 1 μ s pulse width	75 Watt, 1 μ s pulse width	75 Watt, 1 μ s pulse width	75 Watt, 1 μ s pulse width

ELECTRO/MECHANICAL SINGLE POLE DOUBLE THROW SWITCHES



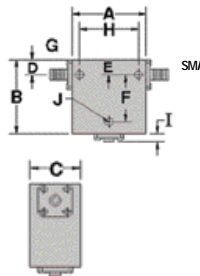
Model S2810H Specifications

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				

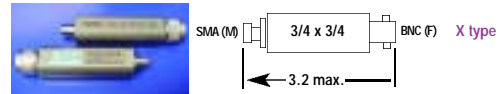
For Latching Type with Contacts add /L/C after Part Number Ex: S2810H=S2810H/L/C
SMA Female Standard

CIRCULATOR / ISOLATOR

Outline Number	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. F	Dim. G	Dim. H	Dim. I	Dim. J
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

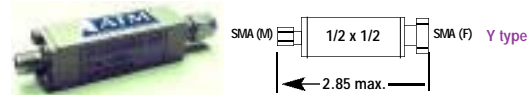


MICROWAVE NOISE GENERATORS



15.5 dB Noise Figure Meter Compatible Noise Sources

Model No.	Freq (GHz)	Noise Output (ENR -dB)	VSWR(max) ON/OFF	Calibration Frequencies
NX1512X	1-2	15.5 +/-0.5	1.20:1	1, 1.5, 2 GHz
NX1524X	2-4	15.5 +/-0.5	1.20:1	
NX1548X	4-8	15.5 +/-0.5	1.20:1	
NX15812X	8-12	15.5 +/-0.5	1.35:1	
NX151218X	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
NX3212Y	1-2	30-35	±1	1, 1.5, 2 GHz
NX3224Y	2-4	30-35	±1	
NX3248Y	4-8	30-35	±1	
NX32812Y	8-12	28-33	±1	
NX321218Y	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.	PK	CW	CW	Circulator	Isolator	
1.0-2.0	20	17	0.35	0.5	1.25	1.35	100	25	1	AtC1-2	ATI1-2	1
2.0-4.0	20	18	0.35	0.5	1.25	1.30	200	50	1	AtC2-4	ATI2-4	2
2.6-5.2	20	18	0.35	0.5	1.25	1.30	300	50	1	AtC2.6-5.2	ATI2.6-5.2	3
3.0-6.0	20	18	0.35	0.5	1.25	1.30	400	50	1	AtC3-6	ATI3-6	3
4.0-8.0	20	18	0.35	0.5	1.25	1.30	400	50	1	AtC4-8	ATI4-8	4
5.0-10.0	20	18	0.35	0.5	1.25	1.30	400	50	1	AtC5-10	ATI5-10	4
6.0-12.0	20	18	0.40	0.6	1.25	1.30	500	50	1	AtC6-12	ATI6-12	5
6.2-18.0	13	12	0.80	1.0	1.56	1.67	200	60	1	AtC6.2-18	ATI6.2-18	6
8.0-12.4	20	18	0.40	0.5	1.25	1.30	200	60	1	AtC8-12.4	ATI8-12.4	7
8.0-18.0	16	14	0.60	0.7	1.40	1.50	200	60	1	AtC8-18	ATI8-18	7
12.0-18.0	20	18	0.50	0.6	1.25	1.30	200	60	1	AtC12-18	ATI12-18	7

Note: ATM Standard Parts come with SMA 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: AtC1-2/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 ENRare available on special order

Specifications
Input power +28VDC at 20 mA max