

15 Million Cycles SPDT Switch

50Ω DC to 18 GHz

MSP2TA-18



CASE STYLE: FP914

Connectors	Model	Price	Qty.
SMA	MSP2TA-18	\$169.95	(1-9)

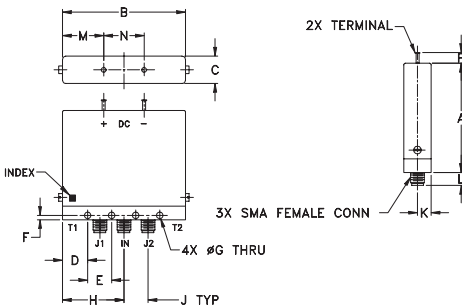
Features

- low insertion loss, 0.2 dB typ.
- high isolation, 70 dB typ.
- high power handling, 10W
- ultra reliable
- break-before-make configuration
- absorptive failsafe switch
- protected by US Patents 4,908,588; 5,272,458; 6,650,210

Applications

- (ATE) automatic test equipment
- reliable "sleep-time" switching
- redundancy switching for microwave radio

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
2.00	2.25	.50	.460	.440	.080	.120	1.125	.440	.25	.24	.755	.740	.19	grams
50.80	57.15	12.70	11.68	11.18	2.03	3.05	28.58	11.18	6.35	6.10	19.18	18.80	4.83	70

Electrical Specifications

FREQ. (GHz)	INSERTION LOSS (dB)		ISOLATION (dB)		VSWR (:1)		DC CURRENT @+24V (mA)		RF POWER* (W)
	Typ.	Max.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Max.
DC-1	0.10	0.15	100	85	1.05	1.10			
1-8	0.15	0.30	90	70	1.20	1.30			
8-12	0.25	0.40	80	70	1.20	1.35	175	215	10
12-18	0.30	0.50	66	60	1.25	1.40			

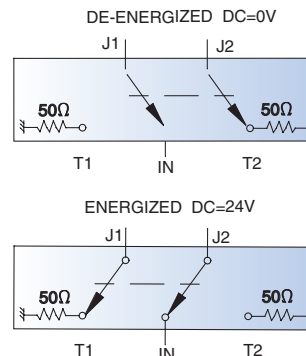
*Power Ratings at ambient temperature 25°C, non-switching mode. Dissipation in internal termination 2W max.

Additional Specifications

Operating Voltage Range	24V (nom) ±1V
Switching Time(typ.)	20ms
Operating Temperature	-15°C to +45°C
Life† (Min.)	10 million cycles

† tested at 0 dBm RF power.

Switching States



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

REV. H
M111320
MSP2TA-18
ED-8697/3
YB/RS/CP
081216
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Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB)		OFF ISOLATION (dB)		VSWR, IN (:1)		VSWR energized (:1)		VSWR de-energized (:1)	
	IN-J2	IN-J1	IN-J1	IN-J2	ON	OFF	T1	J2	J1	T2
0.30	0.06	0.05	94.92	79.77	1.03	1.03	1.02	1.04	1.03	1.02
100.00	0.03	0.03	96.96	111.37	1.01	1.01	1.02	1.01	1.01	1.02
1000.00	0.04	0.06	114.69	101.13	1.02	1.02	1.03	1.02	1.02	1.04
2000.00	0.06	0.07	99.47	103.13	1.04	1.03	1.05	1.01	1.01	1.06
3000.00	0.09	0.07	101.23	104.33	1.04	1.04	1.08	1.04	1.04	1.08
4000.00	0.07	0.07	99.22	107.98	1.08	1.10	1.13	1.10	1.13	1.10
5000.00	0.10	0.09	103.68	108.00	1.13	1.18	1.16	1.13	1.19	1.12
6000.00	0.14	0.09	97.49	97.44	1.15	1.20	1.15	1.16	1.21	1.10
7000.00	0.14	0.09	97.75	97.67	1.16	1.20	1.12	1.18	1.21	1.09
8000.00	0.10	0.11	95.12	99.76	1.15	1.16	1.09	1.16	1.17	1.07
9000.00	0.14	0.12	97.31	97.80	1.13	1.11	1.07	1.14	1.11	1.05
10000.00	0.15	0.15	95.32	103.93	1.13	1.09	1.08	1.14	1.09	1.09
11000.00	0.15	0.16	107.31	94.88	1.17	1.11	1.10	1.18	1.10	1.17
12000.00	0.16	0.17	87.15	92.14	1.21	1.12	1.12	1.21	1.11	1.26
13000.00	0.15	0.16	85.75	85.32	1.24	1.12	1.17	1.25	1.14	1.33
14000.00	0.19	0.17	83.47	85.43	1.24	1.17	1.24	1.24	1.17	1.37
15000.00	0.28	0.18	87.75	83.36	1.16	1.21	1.30	1.18	1.21	1.32
16000.00	0.26	0.23	82.24	85.79	1.07	1.18	1.32	1.08	1.21	1.19
17000.00	0.21	0.20	80.97	82.51	1.04	1.15	1.27	1.03	1.11	1.17
18000.00	0.20	0.13	80.03	79.20	1.09	1.10	1.20	1.08	1.05	1.29

