

Xtra Long Life SPDT Switch

50Ω DC to 18 GHz

MSP2T-18XL



CASE STYLE: FK811

Connectors	Model	Price	Qty.
SMA	MSP2T-18XL	\$159.95	(1-9)

Maximum Ratings

Operating Temperature	-15°C to +45°C
Storage Temperature	-15°C to +45°C
RF Power (any single port)	10W
Control Voltage	26VDC

Permanent damage may occur if any of these limits are exceeded.

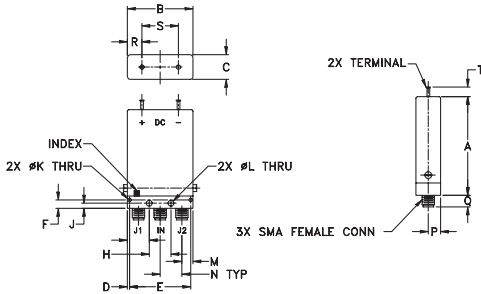
Features

- low insertion loss, 0.25 dB typ.
- high isolation, 85 dB typ.
- high power handling, 10W
- ultra reliable
- break-before-make configuration
- reflective failsafe switch
- protected by US Patents 5,272,458; 6,414,577; 6,650,210; 7,633,361; 7,843,289

Applications

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

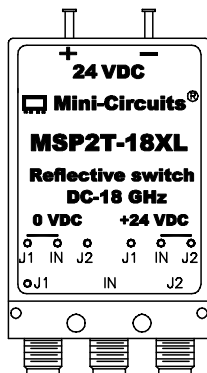
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
2.00	1.33	.50	.045	1.240	.170	.445	.440	.103
50.80	33.78	12.70	1.14	31.50	4.32	11.30	11.18	2.62
K	L	M	N	P	Q	R	S	T
.070	.120	.227	.440	.25	.24	.297	.740	.19
1.78	3.05	5.77	11.18	6.35	6.10	7.54	18.80	4.83
								wt
								grams
								41

Marking Drawing



Electrical Specifications

FREQUENCY (GHz)	INSERTION LOSS (dB)		ISOLATION (dB)		VSWR (:1)		DC CURRENT @+24V (mA)		RF POWER ⁴ COLD SWITCHING (W)	RF POWER ⁴ HOT SWITCHING (W)	
	Typ.	Max.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Max.	Note 1	Note 2
DC - 1	0.10	0.15	100	85	1.05	1.10					
1 - 8	0.20	0.30	90	75	1.20	1.35					
8 - 12	0.25	0.35	80	70	1.20	1.35	80	115	10	0.1	1.0
12 - 18	0.30	0.45	66	60	1.15	1.40					

Additional Specifications

Operating Voltage Range	24V (nom) ±1V
Switching Time (Typ.)	20ms
Life ³ (Min.)	1year/10 million switch cycles

Notes

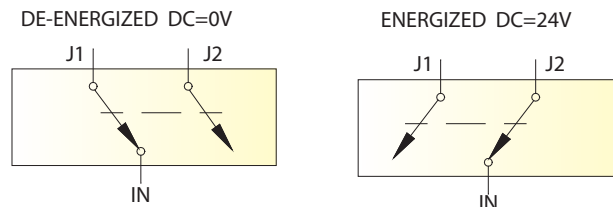
1. To achieve specified life, hot switching RF power must not exceed this level.
2. Degradation in life (min.) to typically 3 million switch cycles for hot switch at this RF power level.
3. Tested at 0 dBm RF power.
4. Power handling is specified with RF applied to the IN port and output load connected to either J1 or J2

10 YEAR EXTENDED WARRANTY

10 Yr. 100 Million Cycles³
\$19.95/yr.
for a total of
\$199.50

*10 year agreement required
Click Here for details

Switching States



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

REV. A
M124885
MSP2T-18XL
BC/CP/AM
110331
Page 1 of 2

Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB)		OFF ISOLATION (dB)		VSWR, IN (:1)		VSWR energized (:1)	
	IN-J1	IN-J2	IN-J1	IN-J2	ON	OFF	J1	J2
10.00	0.00	0.00	92.40	95.82	1.00	1.00	1.00	1.00
100.00	0.01	0.01	92.57	102.75	1.00	1.01	1.01	1.00
1000.00	0.04	0.04	98.17	101.65	1.01	1.02	1.01	1.01
2000.00	0.06	0.06	103.54	95.79	1.03	1.04	1.04	1.02
3000.00	0.08	0.07	97.19	97.25	1.05	1.07	1.07	1.06
4000.00	0.09	0.08	92.71	94.48	1.08	1.09	1.10	1.08
5000.00	0.11	0.10	85.50	98.00	1.11	1.12	1.11	1.10
6000.00	0.13	0.11	93.58	94.07	1.14	1.15	1.15	1.14
7000.00	0.14	0.14	98.28	89.40	1.14	1.15	1.15	1.15
8000.00	0.14	0.14	106.76	91.02	1.13	1.12	1.12	1.13
9000.00	0.14	0.14	100.25	89.95	1.10	1.07	1.07	1.10
10000.00	0.15	0.14	89.20	91.80	1.06	1.04	1.04	1.07
11000.00	0.16	0.15	84.01	82.51	1.05	1.04	1.05	1.07
12000.00	0.16	0.17	96.22	88.82	1.07	1.05	1.04	1.08
13000.00	0.17	0.18	88.01	86.27	1.12	1.08	1.06	1.10
14000.00	0.20	0.20	83.33	87.28	1.16	1.08	1.08	1.16
15000.00	0.22	0.21	82.33	81.73	1.17	1.09	1.10	1.17
16000.00	0.23	0.21	80.17	85.38	1.19	1.10	1.12	1.20
17000.00	0.24	0.24	79.28	75.47	1.20	1.09	1.09	1.20
18000.00	0.28	0.27	78.01	79.03	1.20	1.10	1.07	1.21

