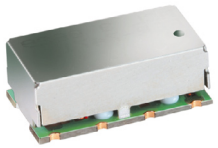
Surface Mount

Low Pass Filter

SXLP-8+

50Ω DC to 8 MHz



CASE STYLE: HF1139
PRICE: $12.95 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

Pin Connections

INPUT	1
OUTPUT	8
GROUND	2, 3, 4, 5, 6, 7

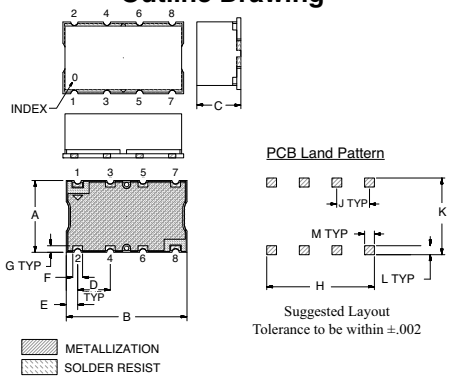
Features

- High rejection
- Sharp cut-off
- Shielded package
- Aqueous washable
- Low cost

Applications

- Defense communications
- Receivers / Transmitters
- Harmonic rejection

Outline Drawing

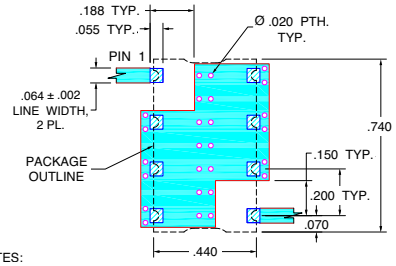


Outline Dimensions (inch / mm)

A	B	C	D	E	F
.440	.740	.270	.200	0.70	0.60
11.18	18.80	6.86	5.08	1.78	1.52

G	H	J	K	L	M	wt.
.040	.660	.200	.470	.055	.060	grams
1.02	16.76	5.08	11.94	1.40	1.52	3.0

Demo Board MCL P/N: TB-368
Suggested PCB Layout (PL-230)



NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS. .025"± .022" COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

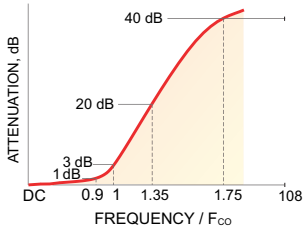
DENOTES PCB COPPER IAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

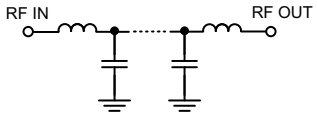
Low Pass Filter Electrical Specifications (T_{AMB}= 25°C)

PASSBAND (MHz)	fco, MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
				Passband Typ.	Stopband Typ.
(Loss < 1dB)	(Loss 3dB)	(Loss > 20dB)	(Loss > 40dB)		
DC - 8	9.2	12.5 - 16.5	16.5 - 1000	1.7	18

Typical Frequency Response



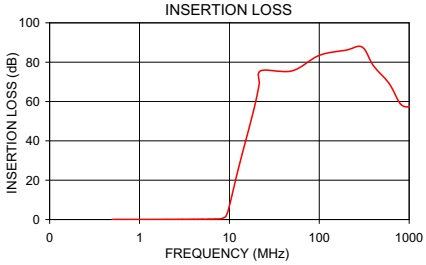
Functional Schematic



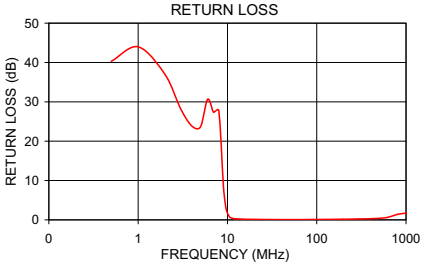
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
0.5	0.06	0.00	40.31	0.5	79.92
2.6	0.12	0.01	31.02	2.0	91.19
5.4	0.24	0.01	25.18	2.5	92.76
8.0	0.39	0.02	27.83	3.0	93.55
8.8	0.81	0.12	11.54	3.5	91.93
9.2	1.77	0.32	6.29	4.0	95.65
9.5	3.15	0.50	3.80	4.5	99.70
10.0	6.61	0.65	1.64	5.0	101.97
10.8	13.16	0.63	0.58	5.5	103.46
12.5	25.40	0.56	0.24	6.0	109.39
16.5	46.36	0.91	0.14	7.0	120.18
30.0	73.63	6.96	0.08	7.4	127.53
50.0	74.71	4.84	0.07	7.6	131.20
100.0	79.98	4.41	0.10	7.8	139.44
200.0	83.65	3.30	0.16	8.0	146.44
400.0	76.92	1.37	0.30	8.2	156.94
600.0	71.35	2.38	0.56	8.6	180.69
800.0	63.32	4.82	1.39	9.0	204.83
1000.0	60.15	2.66	1.71	9.2	205.46

SXLP-8+
INSERTION LOSS



SXLP-8+
RETURN LOSS



SXLP-8+
GROUP DELAY