

Low Pass Filter

SXLP-10.7+

50Ω DC to 11 MHz

Maximum Ratings

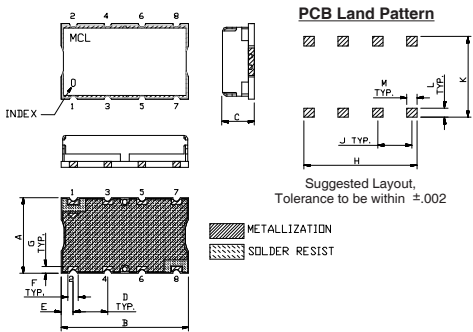
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

Pin Connections

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

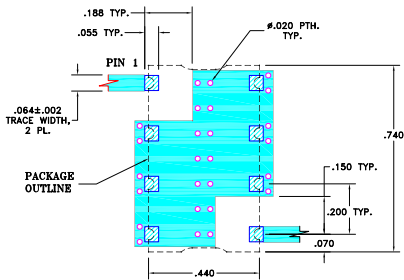
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.44	.74	.27	.200	.07	.060	
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)



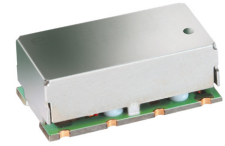
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- high rejection
- sharp cut-off
- shielded package
- aqueous washable
- low cost

Applications

- defense communications
- receivers / transmitters
- harmonic rejection



CASE STYLE: HF1139

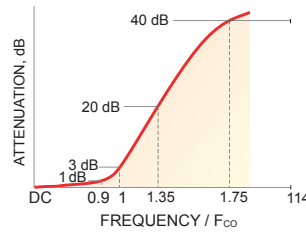
+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

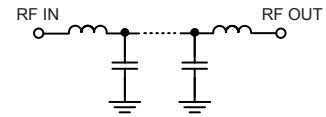
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 11	14	19 - 24	24 - 1600	1.4	18

Typical Frequency Response

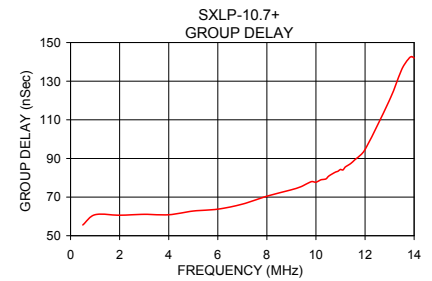
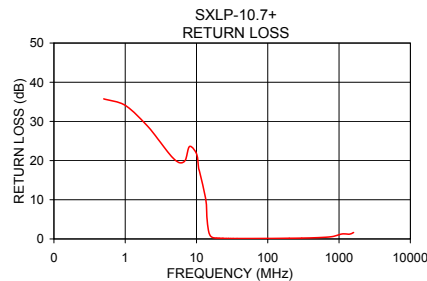
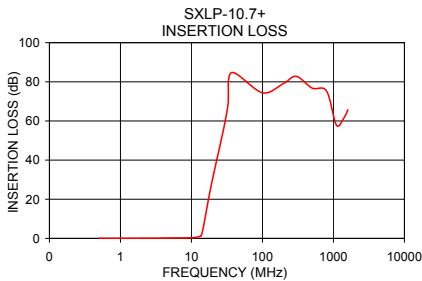


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
0.5	0.05	0.01	35.75	0.5	55.57
3.0	0.10	0.01	25.09	2.0	60.62
6.0	0.21	0.02	19.42	3.0	61.09
11.0	0.39	0.02	17.32	4.0	60.85
13.0	0.63	0.04	18.00	5.0	62.80
13.5	1.12	0.09	10.09	6.0	63.77
14.0	2.32	0.16	5.42	7.0	66.36
14.5	4.35	0.23	2.85	8.0	70.45
15.3	8.68	0.29	1.12	9.0	73.81
17.0	17.93	0.31	0.36	9.4	75.45
19.0	26.92	0.33	0.22	9.8	77.94
24.0	43.86	0.50	0.15	10.0	77.71
40.0	73.61	3.86	0.10	10.2	78.94
100.0	72.45	1.64	0.13	10.4	79.39
300.0	80.32	1.83	0.22	10.8	82.98
500.0	77.35	1.04	0.33	11.0	84.33
1000.0	68.99	8.85	1.38	11.4	87.23
1300.0	60.87	1.51	1.09	12.0	94.67
1600.0	66.47	6.41	1.64	14.0	141.99



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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