

Low Pass Filter

SXLP-90+

50Ω DC to 90 MHz

Maximum Ratings

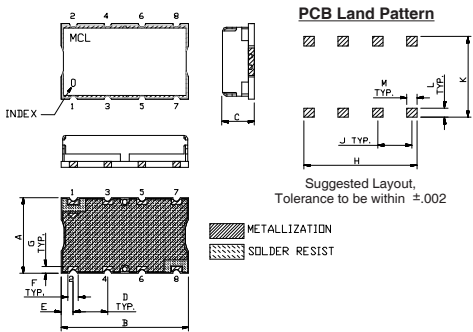
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

Pin Connections

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

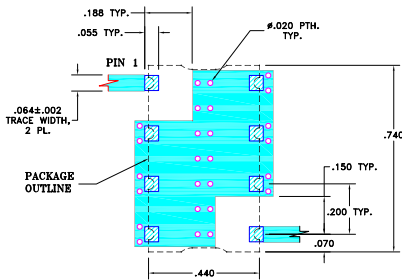
Outline Drawing



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)



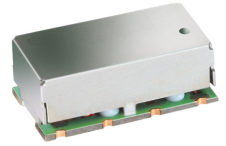
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER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

Features

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

Applications

- test equipments
- defense communications
- receivers / transmitters
- harmonic rejection



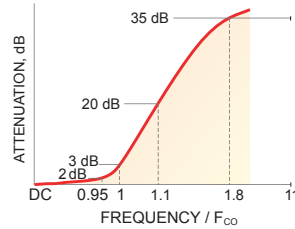
CASE STYLE: HF1139

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

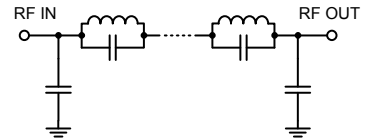
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss 35dB Typ.)	Passband Typ.	Stopband Typ.
DC - 90	94	105 - 170	170 - 1000	1.2	18

Typical Frequency Response

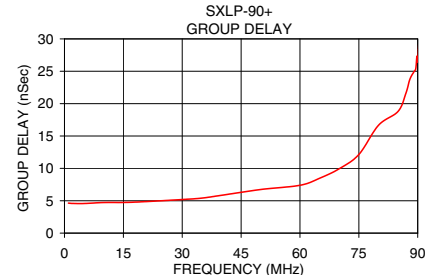
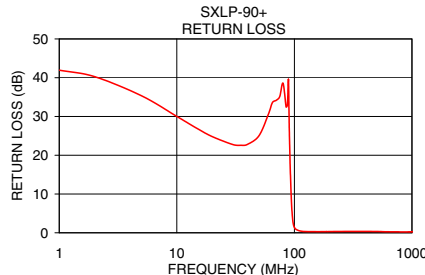
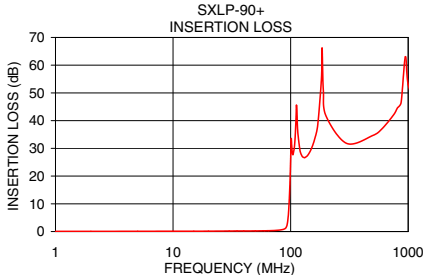


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	\bar{x}	σ			
1.0	0.03	0.02	41.95	1.0	4.63
5.0	0.06	0.02	35.35	2.0	4.63
20.0	0.11	0.02	24.82	5.0	4.58
50.0	0.21	0.02	25.05	10.0	4.57
75.0	0.40	0.02	35.12	15.0	4.73
85.0	0.66	0.02	32.46	20.0	4.74
90.0	1.08	0.02	31.00	30.0	4.84
93.0	2.09	0.12	13.12	40.0	5.41
94.0	2.96	0.19	9.38	50.0	5.84
95.0	4.40	0.29	6.45	60.0	6.74
97.0	9.70	0.44	2.99	65.0	7.39
99.0	18.72	0.68	1.69	70.0	8.47
100.0	25.21	0.94	1.38	75.0	9.94
105.0	27.65	0.93	0.76	80.0	12.14
170.0	36.96	1.75	0.30	85.0	16.65
300.0	31.73	0.23	0.35	87.0	18.81
500.0	34.60	0.18	0.33	89.0	23.75
945.0	58.72	2.92	0.24	89.5	24.88
1000.0	51.39	1.46	0.28	90.0	27.29



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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