

# Low Pass Filter

## SXLP-30+

50Ω DC to 30 MHz

### Maximum Ratings

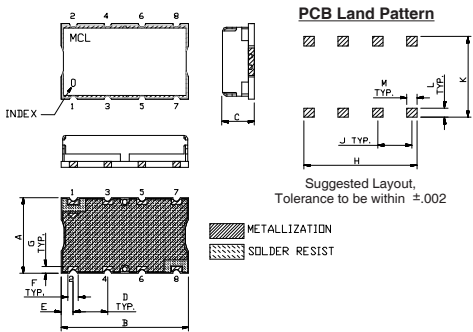
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

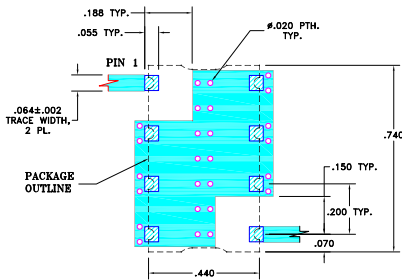


### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt.
.44	.74	.27	.200	.07	.060	11.18	18.80	6.86	5.08	1.78	1.52	grams
1.02	16.76	5.08	11.94	1.40	1.52	3.0						

Note: Please refer to case style drawing for details

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

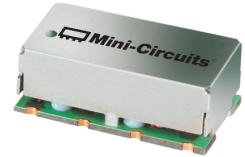


### Features

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

### Applications

- defense communications
- receivers / transmitters
- harmonic rejection



Generic photo used for illustration purposes only  
CASE STYLE: HF1139

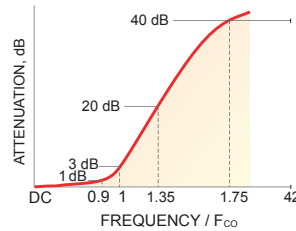
### +RoHS Compliant

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

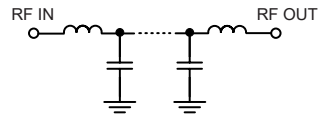
### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 30	35	47 - 61	61 - 1500	1.7	18

### Typical Frequency Response

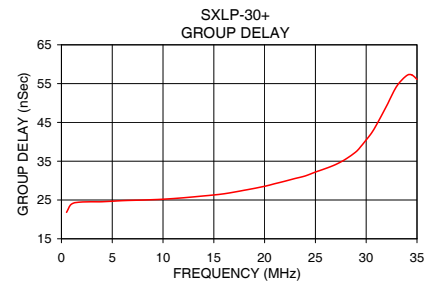
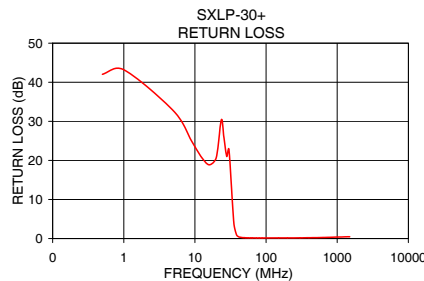
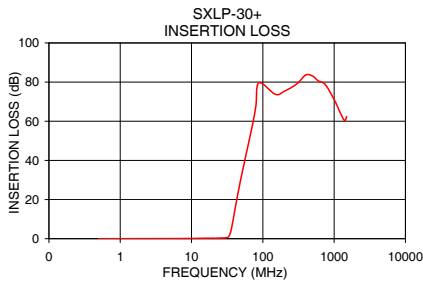


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	0.01	0.01	42.03	0.5	21.81
1.5	0.02	0.00	44.66	2.0	24.48
3.0	0.04	0.00	43.09	6.0	24.84
8.0	0.08	0.00	29.10	8.0	24.98
13.0	0.16	0.01	21.22	10.0	25.20
26.0	0.31	0.01	24.98	12.0	25.56
30.0	0.45	0.01	24.54	14.0	26.05
33.0	0.96	0.03	12.27	16.0	26.60
34.0	1.70	0.04	7.64	18.0	27.51
35.0	2.97	0.06	4.63	20.0	28.54
36.0	4.77	0.10	2.77	22.0	29.85
38.0	9.25	0.17	1.11	23.0	30.55
42.0	18.19	0.26	0.38	24.0	31.20
47.0	27.53	0.33	0.24	25.0	32.21
61.0	47.11	0.55	0.17	26.0	33.11
100.0	74.33	2.07	0.15	27.0	34.15
400.0	81.35	2.33	0.19	28.0	35.56
800.0	78.11	1.32	0.28	30.0	40.49
1200.0	66.61	1.54	0.39	33.0	54.30
1500.0	60.60	1.50	0.47	35.0	56.10



### 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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