

# Low Pass Filter

## SXLP-21.4+

50Ω DC to 22 MHz

### Maximum Ratings

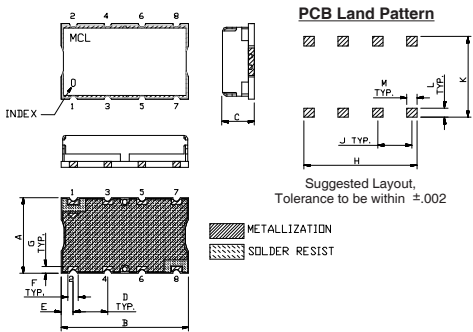
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

### Pin Connections

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

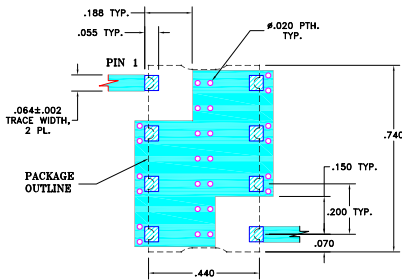
### Outline Drawing



### 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. grams
.040	.660	.200	.470	.055	.060	3.0
1.02	16.76	5.08	11.94	1.40	1.52	

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

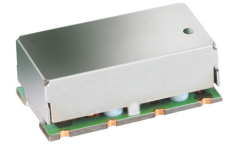


### Features

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

### Applications

- defense communications
- receivers / transmitters
- harmonic rejection



CASE STYLE: HF1139

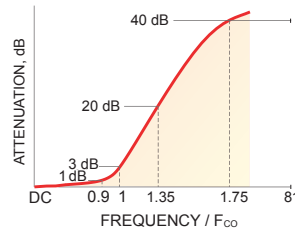
### +RoHS Compliant

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

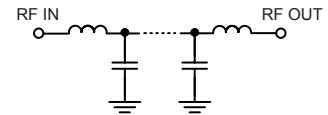
### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 40dB)	Passband Typ.	Stopband Typ.
DC - 22	24.5	32 - 41	41 - 2000	1.3	18

### Typical Frequency Response

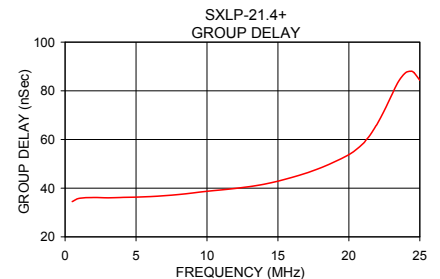
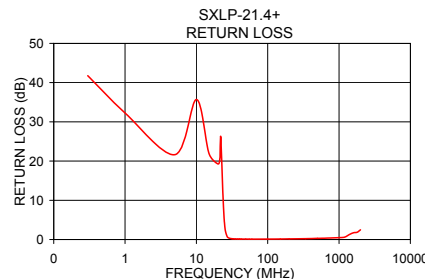
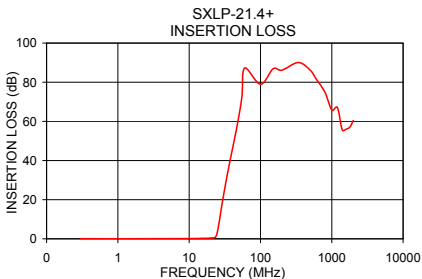


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
0.5	0.04	0.01	39.37	0.5	34.48
2.5	0.08	0.01	24.51	2.0	36.18
11.0	0.16	0.01	27.34	4.0	36.18
19.0	0.33	0.01	22.33	6.0	36.53
22.0	0.47	0.01	26.05	8.0	37.40
23.5	0.95	0.04	11.82	10.0	38.72
24.0	1.53	0.09	7.93	12.0	39.90
24.5	2.46	0.14	5.23	14.0	41.60
25.5	5.35	0.26	2.24	16.0	44.45
27.5	12.69	0.38	0.58	18.0	48.34
32.0	26.80	0.44	0.20	20.0	53.79
41.0	46.58	0.58	0.12	21.0	58.29
70.0	85.52	4.91	0.10	21.4	61.06
100.0	83.48	4.91	0.11	21.8	64.61
300.0	93.44	3.07	0.20	22.0	66.39
500.0	88.28	4.20	0.29	23.0	78.07
1000.0	66.04	2.86	0.48	23.5	83.86
1500.0	55.48	1.81	1.92	24.0	87.44
2000.0	58.00	3.29	2.47	25.0	84.33



### 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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