

# Low Pass Filter

## SXLP-450+

50Ω DC to 450 MHz

### Maximum Ratings

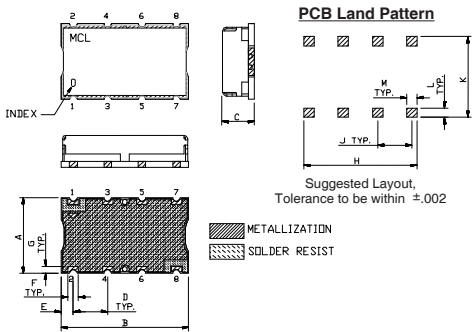
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

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

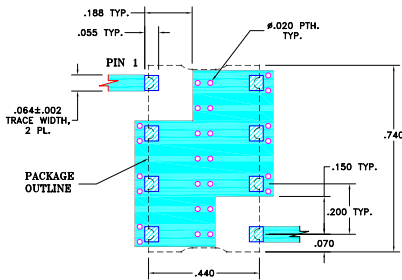


### Outline Dimensions (inch/mm)

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

Note: Please refer to case style drawing for details

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



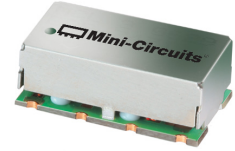
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025 ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES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



Generic photo used for illustration purposes only  
CASE STYLE: HF1139

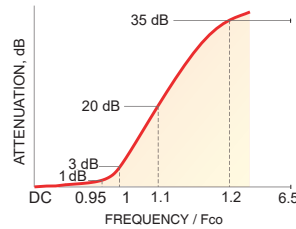
### +RoHS Compliant

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

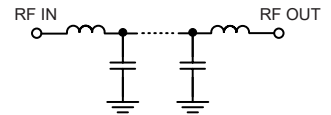
### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 20dB)	(Loss > 35dB)	Passband Typ.	Stopband Typ.
DC - 450	465	495 - 545	545 - 3000	1.2	18

### Typical Frequency Response

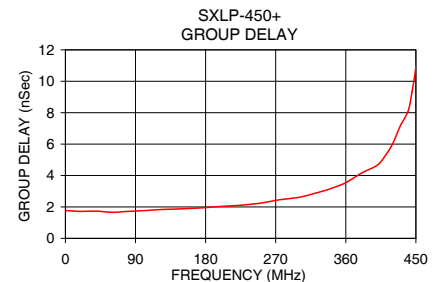
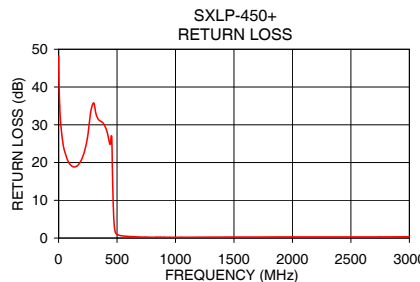


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	$\sigma$			
1.0	0.03	0.01	48.18	1.0	1.77
10.0	0.07	0.00	34.98	5.0	1.77
100.0	0.20	0.01	19.45	10.0	1.75
340.0	0.44	0.01	31.46	20.0	1.74
420.0	0.82	0.01	27.57	40.0	1.72
450.0	1.37	0.06	27.11	80.0	1.66
460.0	2.10	0.18	18.56	100.0	1.71
465.0	3.09	0.36	11.59	150.0	1.84
470.0	5.05	0.69	6.74	200.0	1.94
475.0	8.28	1.08	3.79	225.0	2.03
485.0	17.78	1.67	1.61	250.0	2.11
495.0	30.87	2.45	1.08	275.0	2.24
545.0	60.30	2.92	0.61	320.0	2.61
870.0	43.60	0.28	0.23	340.0	2.86
1000.0	45.55	0.23	0.21	380.0	3.55
1500.0	55.39	0.53	0.27	400.0	4.15
2000.0	71.89	8.60	0.31	420.0	5.22
2500.0	56.48	0.20	0.30	440.0	7.16
3000.0	46.48	0.24	0.36	450.0	9.31



### 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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