

Low Pass Filter

50Ω DC to 225 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.

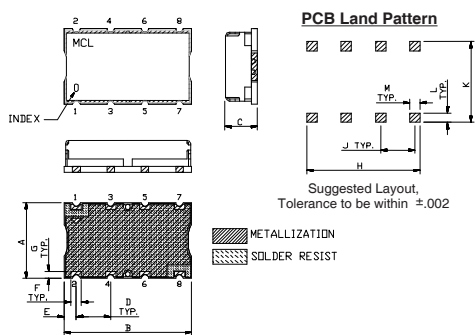
Pin Connections

INPUT 1

OUTPUT 8

GROUND 2, 3, 4, 5, 6, 7

Outline Drawing

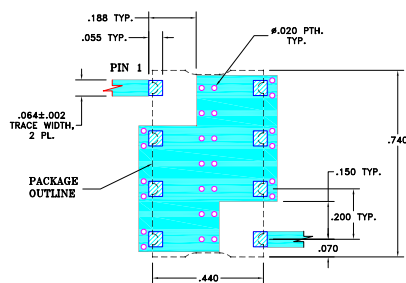


Outline Dimensions (inch mm)

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

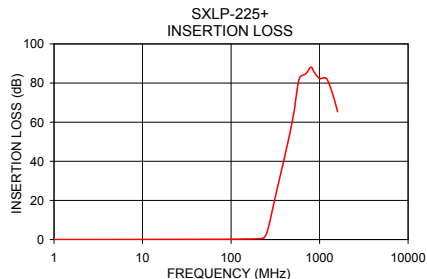
Demo Board MCL P/N: TB-368

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.
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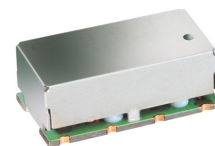


Features

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

Applications

- defense communications
- receivers / transmitters
- harmonic rejection



CASE STYLE: HF1139

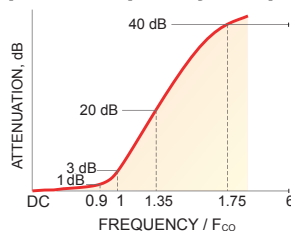
+RoHS Compliant

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

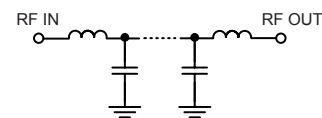
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

PASSBAND (MHz)	f _{co} , MHz Nom.	STOPBAND (MHz)		VSWR (:1)	
		(Loss > 1dB)	(Loss > 3dB)	(Loss > 20dB)	(Loss > 40dB)
DC - 225	250	340 - 440	440 - 1600	1.4	18

Typical Frequency Response

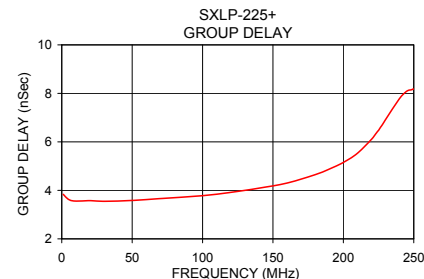
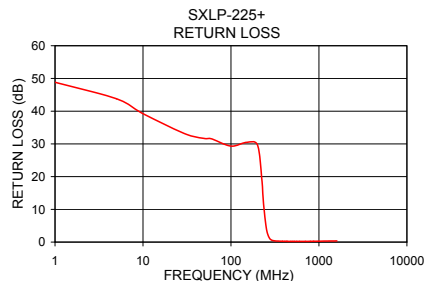


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	σ			
1.0	0.00	0.01	48.85	1.0	3.84
3.0	0.02	0.00	47.47	5.0	3.62
8.0	0.04	0.00	40.44	10.0	3.56
20.0	0.08	0.00	35.20	20.0	3.58
70.0	0.16	0.00	31.61	30.0	3.55
170.0	0.32	0.01	42.75	50.0	3.58
225.0	0.59	0.02	18.89	70.0	3.66
240.0	1.31	0.06	8.90	100.0	3.78
250.0	2.69	0.13	4.93	120.0	3.92
260.0	5.02	0.19	2.63	140.0	4.09
275.0	9.56	0.29	1.12	160.0	4.30
300.0	17.37	0.42	0.48	180.0	4.65
340.0	28.23	0.58	0.31	190.0	4.88
440.0	49.61	1.00	0.22	200.0	5.15
500.0	61.02	1.92	0.21	210.0	5.53
800.0	87.22	6.37	0.24	220.0	6.11
1000.0	82.22	2.97	0.28	225.0	6.48
1200.0	83.16	1.77	0.31	230.0	6.92
1400.0	72.72	1.51	0.33	240.0	7.79
1600.0	65.09	1.05	0.35	250.0	8.18



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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