

Bandpass Filter

50Ω 24 to 46 MHz

Maximum Ratings

Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

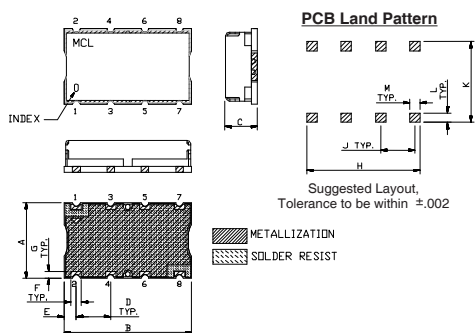
RF Power Input 0.5W Max.

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

Pin Connections

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

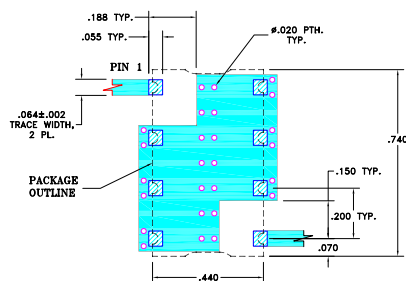
Outline Drawing



Outline Dimensions (inch/mm)

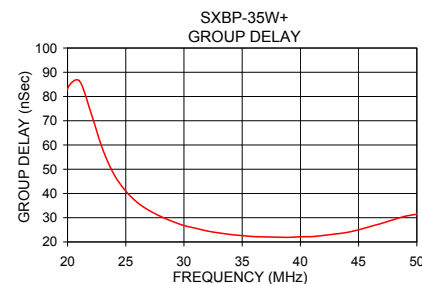
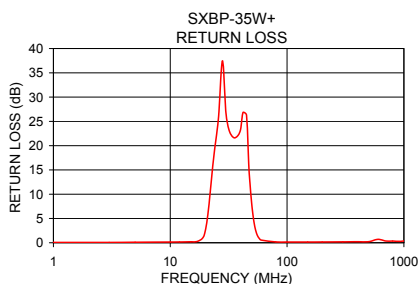
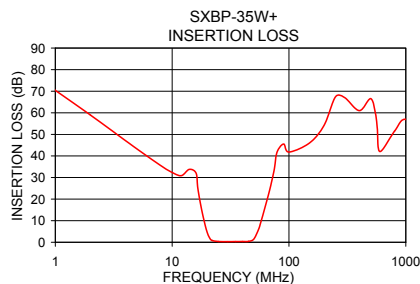
	A	B	C	D	E	F	
	.44	.74	.27	.200	.07	.060	
	11.18	18.80	6.86	5.08	1.78	1.52	
	G	H	J	K	L	M	wt.
	.040	.660	.200	.470	.055	.060	grams
	1.02	16.76	5.08	11.94	1.40	1.52	3.0

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

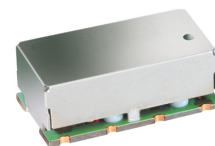


Features

- excellent rejection
- good VSWR, 1.1:1 typ @ passband

Applications

- FM radio rejection
- receivers / transmitters
- professional mobile radio / public access mobile radio (PMR/ PAMR)



CASE STYLE: HF1139

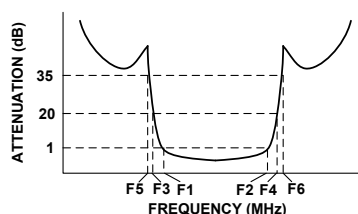
+RoHS Compliant

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

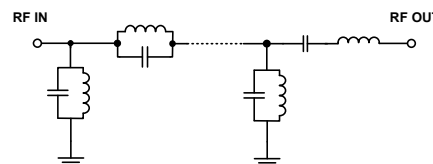
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 1dB) F1 - F2	STOPBANDS (MHz)				VSWR (:1)	
		Loss > 20dB		Loss > 35dB		Passband Max.	Stopband Typ.
35	24 - 46	F3	F4	F5	F6	1.5	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	70.38	0.28	0.06	20.0	83.25
5.0	43.27	0.20	0.10	22.0	73.52
16.0	32.10	3.26	0.19	24.0	47.80
17.5	17.74	1.18	0.32	26.0	36.28
19.0	8.72	0.77	1.01	28.0	30.55
20.0	4.40	0.53	2.58	30.0	26.77
21.0	1.88	0.27	5.83	32.0	24.50
24.0	0.40	0.02	19.27	34.0	23.07
35.0	0.32	0.00	21.65	35.0	22.61
46.0	0.49	0.03	20.26	36.0	22.21
50.0	1.47	0.16	7.66	38.0	21.97
53.0	3.76	0.29	3.27	40.0	22.13
56.0	7.36	0.34	1.40	42.0	22.68
62.0	15.62	0.32	0.41	44.0	23.93
73.0	30.82	0.35	0.19	46.0	26.37
81.0	47.49	0.35	0.19	48.0	29.19
500.0	66.57	0.76	0.23	50.0	31.41
1000.0	56.95	0.81	0.39	52.0	31.21

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.
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