

Bandpass Filter

SXBP-100+

50Ω 87 to 117 MHz

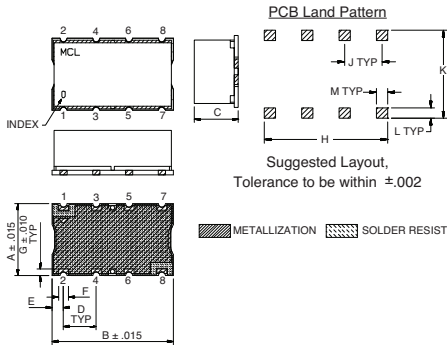
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.25W 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

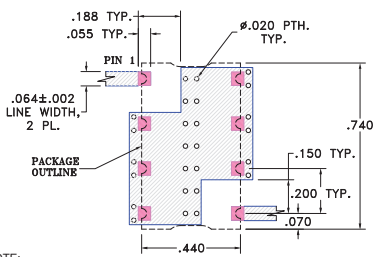


Outline Dimensions (inch mm)

A	B	C	D	E	F	
.440	.740	.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:
1. 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.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

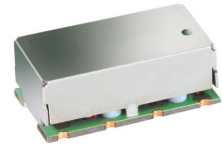
DENOTES PCB COPPER LAYOUT
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- High rejection
- Good VSWR, 1.3:1 typ @ passband
- Shielded case
- Aqueous washable

Applications

- Radio
- Test equipment
- Receivers / transmitters
- Harmonic rejection



CASE STYLE: HF1139

PRICE: \$15.95 ea. QTY (1-9)

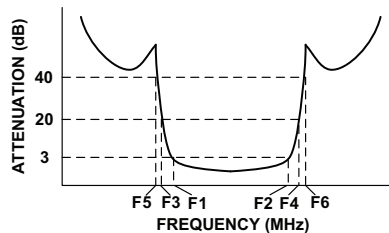
+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS
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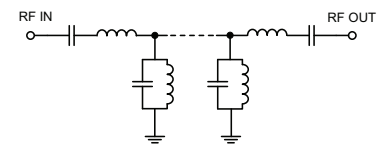
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
100	87 - 117	66	143	55	175 - 1500	1.3	1.7	20

Typical Frequency Response

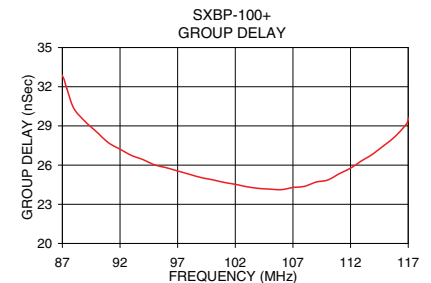
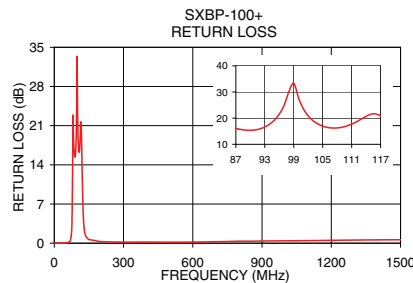
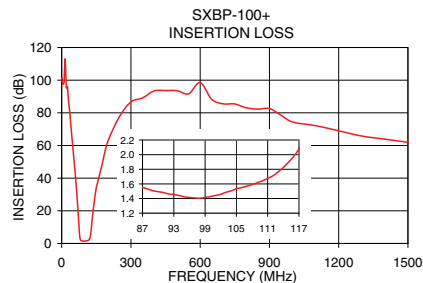


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	σ			
1	101.48	3.67	0.01	87	32.84
55	48.64	0.58	0.07	88	30.34
66	29.62	0.77	0.27	89	29.32
70	21.58	0.91	0.49	90	28.52
75	10.14	1.07	2.15	92	27.22
78	4.46	0.73	7.86	94	26.42
80	2.65	0.36	17.52	96	25.80
87	1.55	0.05	16.07	98	25.30
95	1.42	0.03	19.31	100	24.88
100	1.43	0.04	27.69	102	24.53
110	1.64	0.05	17.02	104	24.22
117	2.08	0.07	20.71	106	24.12
125	5.20	0.70	5.54	108	24.37
130	11.60	0.86	2.39	110	24.85
140	24.55	0.66	1.02	111	25.33
143	27.66	0.62	0.89	112	25.77
175	48.35	0.58	0.48	113	26.35
1500	61.87	0.63	0.62	117	29.46



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