

Bandpass Filter

SXBP-100+

50Ω 87 to 117 MHz

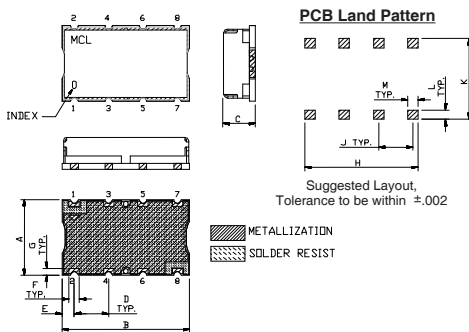
Maximum Ratings

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

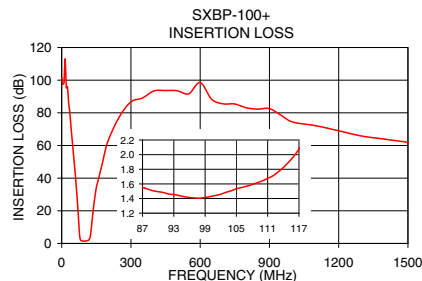
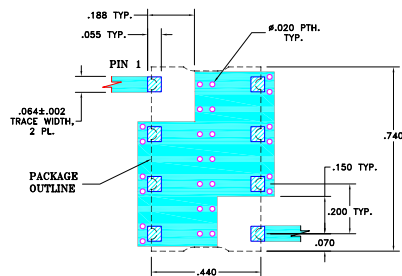


Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.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)



Features

- high rejection
- good VSWR, 1.3:1 typ @ passband
- shielded case
- aqueous washable

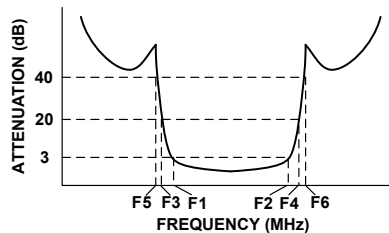
Applications

- radio
- test equipment
- receivers / transmitters
- harmonic rejection

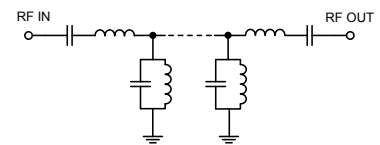
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

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

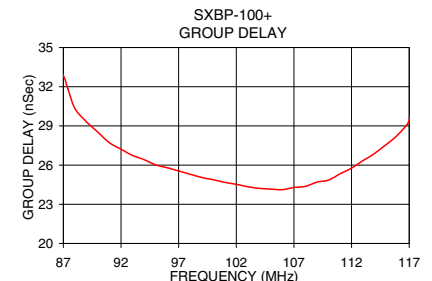
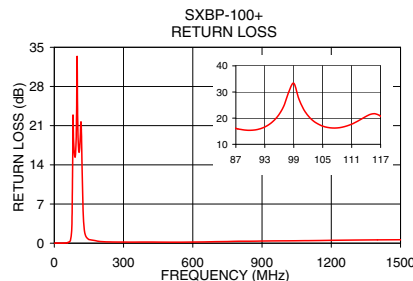


Functional Schematic



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



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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