

Bandpass Filter

Features

- Excellent VSWR, 1.2:1 typical in passband
- High rejection, 70 dB typical
- Sharp insertion loss roll-off
- Shielded case
- Aqueous washable

Applications

- Harmonic rejection
- Transmitters / receivers
- Radio communications

HT-BPF-B199+

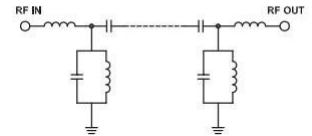


50Ω 194 to 204 MHz

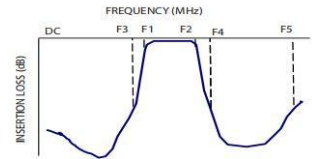
Electrical Specifications at 25°C							
Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	199	-	MHz
	Insertion Loss	F1-F2	194-204	-	4.2	5.0	dB
	VSWR	F1-F2	194-204	-	1.2	1.5	1
Stop Band, Lower	Insertion Loss	DC-F3	DC-179	20	31	-	dB
	VSWR	DC-F3	DC-179	-	24	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	221-2000	20	30	-	dB
	VSWR	F4-F5	221-2000	-	16	-	1

Typical Performance Data at 25°C				
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	91.17	91.43	194.0	55.90
50	73.13	51.10	194.5	55.29
100	72.40	62.05	195.0	54.50
164	53.90	64.35	195.5	53.60
179	32.48	27.16	196.0	52.67
186	17.49	9.38	196.5	51.78
189	10.16	4.09	197.0	50.93
194	4.22	1.24	197.5	50.19
199	3.55	1.10	198.0	49.54
204	3.86	1.09	198.5	49.02
208	5.90	1.71	199.0	48.67
212	13.43	5.36	199.5	48.40
221	30.59	17.93	200.0	48.25
239	50.71	41.37	200.5	48.23
500	75.12	173.72	201.0	48.34
1000	76.18	133.63	201.5	48.57
1300	78.02	102.19	202.0	48.92
1500	74.83	86.86	202.5	49.40
1700	55.64	82.73	203.5	50.67
2000	78.44	75.53	204.0	51.37

Functional Schematic



Typical Frequency Response



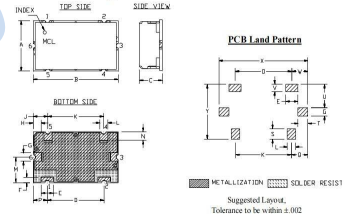
Maximum Ratings

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.	

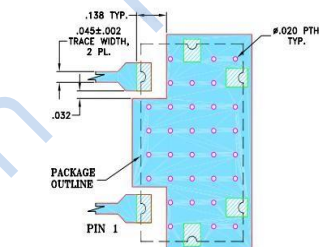
Pad Connections

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

Outline Drawing



Demo Board MCL P/N: TB-400
Suggested PCB Layout (PL-247)



- NOTES:
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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Dimensions: Unit (mm)

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	S	T	U	V	WT	Y
A	11.99	20.98	5.59																		
D	14	3	1.19																		
G	1.98	1.92	3.61																		
K	13.79	1.98	5.99																		
N	2.01	3.51	4.11																		
S	2.49	2.44	5.51																		
V	1.70	3.99	22																		
WT		6.0	13																		