

Bandpass Filter

Features

- Excellent rejection
- Flat Group Delay @ Passband
- Good VSWR, 1.15:1 typ. @ Passband

Applications

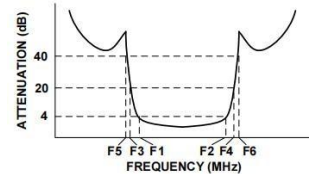
- Receivers / Transmitters
- Radio microphones
- Military communication

HT-BPF-B190+

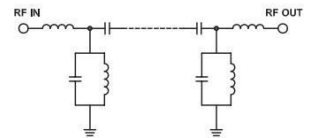


50Ω 185 to 195 MHz

Typical Frequency Response



Functional Schematic



Pin Connections

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

Maximum Ratings

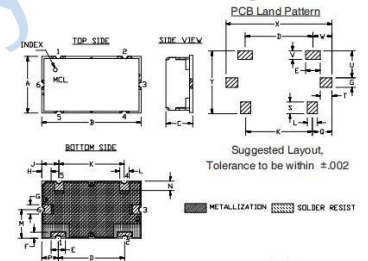
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

RF Power Input* 0.5W max.

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

Outline Drawing



Outline Dimensions: Unit (mm)

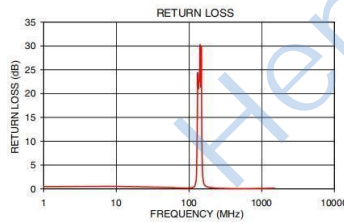
A	11.99	B	20.98	C	5.59
D	14	E	3	F	1.19
G	1.98	H	1.92	J	3.61
K	13.79	L	1.98	M	5.99
N	2.01	P	3.51	Q	4.11
S	2.49	T	2.44	U	5.51
V	1.70	W	3.99	X	22
WT		6.0	Y	13	

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

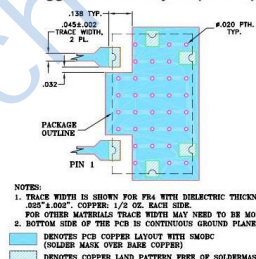
CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR(:1)	
		(Loss > 20dB)		(Loss > 40dB)		Passband Max.	Stopband Typ.
Fc	F1 - F2	F3	F4	F5	F6		
190	185-195	170	212	155	230-2000	1.5	30

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	α	σ			
1	83.66	0.86	0.42	183	66.14
155	54.14	0.72	0.18	184	60.77
170	32.66	0.88	0.55	185	56.86
175	22.01	1.08	1.21	186	52.82
179	11.55	1.21	3.47	187	50.61
182	5.48	0.57	11.84	188	49.31
185	3.75	0.09	21.84	188.5	48.83
190	3.37	0.03	24.85	189.0	48.56
195	3.85	0.13	17.06	189.5	48.12
198	5.70	0.73	14.31	190.0	47.85
201	11.44	1.32	4.25	190.5	47.87
205	20.72	1.15	1.71	191.0	47.74
212	33.12	0.82	0.80	192.0	47.53
230	52.25	0.54	0.34	193.0	59.08
500	81.70	0.63	0.10	194.0	50.24
700	78.33	0.57	0.14	195.0	53.06
1000	72.87	0.33	0.18	196.0	56.55
2000	57.07	0.29	0.26	197.0	60.98



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



- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .003"±. 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 (COLLIER MARK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK