Surface Mount

Bandpass Filter

BPF-B177+

50Ω 170 to 185 MHz

Generic photo used for illustration purposes only

CASE STYLE: HZ1198

+RoHS Compliant

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

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	2
GROUND	3, 4, 5, 6

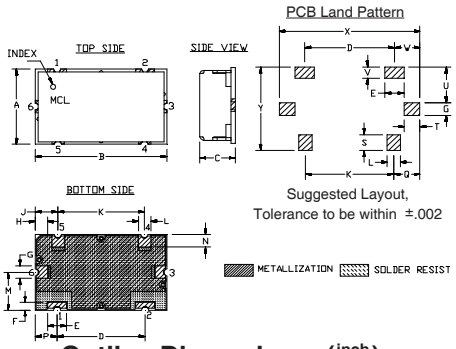
Features

- Excellent rejection
- Good VSWR, 1.3:1 typ.@ Passband

Applications

- Receivers / Transmitters
- Base station (CDMA 2000)

Outline Drawing



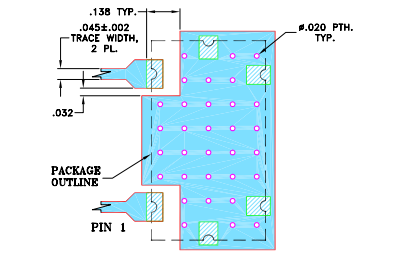
Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M
.472"	.826"	.220"	.551"	.118"	.047"	.078"	.076"	.142"	.543"	.078"	.236"
11.99	20.98	5.59	14.00	3.00	1.19	1.98	1.92	3.61	13.79	1.98	5.99

N	P	Q	S	T	U	V	W	X	Y	wt
.079"	.138"	.162"	.098"	.096"	.217"	.067"	.157"	.866"	.512"	grams
2.01	3.51	4.11	2.49	2.44	5.51	1.70	3.99	22.00	13.00	6.0

Note: Please refer to case style drawing for details

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.

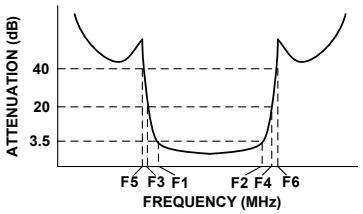
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

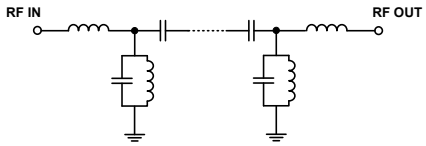
Bandpass Filter Electrical Specifications (T_{AMB}= 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB) F1 - F2	STOPBANDS (MHz) Loss > 20dB F3	F4	Loss > 40dB F5	F6	VSWR (:1) Passband Max.	Stopband Typ.
177	170 - 185	150	210	135	240 - 2000	1.7	30

Typical Frequency Response

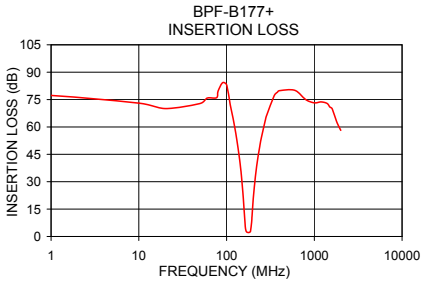


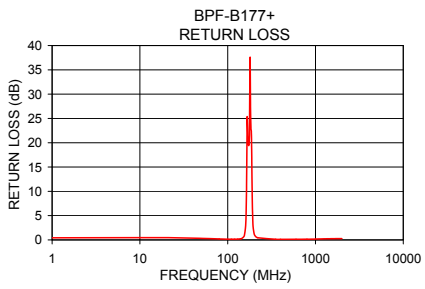
Functional Schematic

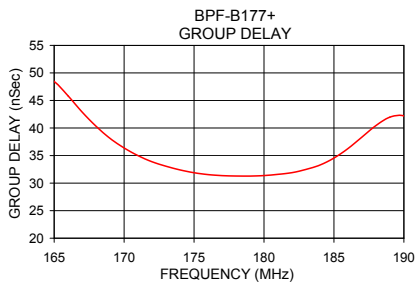


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
1.0	77.26	3.26	0.41	165.0	48.45
135.0	48.61	0.42	0.18	167.0	42.89
150.0	29.67	0.56	0.49	169.0	38.11
159.0	13.44	0.72	2.20	170.0	36.38
163.0	6.08	0.50	7.72	171.0	34.99
170.0	2.42	0.04	20.55	172.0	33.87
177.0	2.17	0.01	21.80	173.0	33.06
185.0	2.46	0.05	22.54	174.0	32.39
191.0	5.06	0.57	7.07	175.0	31.89
194.0	9.27	0.91	3.23	176.0	31.55
199.0	17.13	0.89	1.44	177.0	31.35
210.0	30.18	0.62	0.66	179.0	31.28
240.0	50.00	0.42	0.29	181.0	31.59
400.0	79.86	2.19	0.12	183.0	32.48
900.0	74.08	1.98	0.16	185.0	34.54
1200.0	73.73	1.09	0.21	187.0	38.35
1600.0	69.91	0.85	0.25	188.0	40.44
2000.0	58.16	0.52	0.27	190.0	42.22







Notes

A. 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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