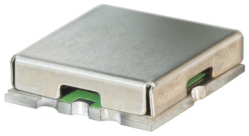
Metal Shield

Bandpass Filter

RBP-173+

50Ω 160 to 185 MHz



CASE STYLE: GP731
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 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 at 25°C

Pin Connections

RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

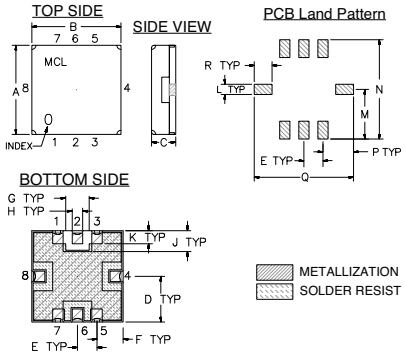
Features

- Linear Phase, up to ± 4 deg. Typ @ Fc ± 15 MHz
- Good VSWR, 1.2:1 Typ @ Pass Band
- Small Size (0.35" X 0.35")

Applications

- WiMAX
- Harmonic Rejection
- Transmitters/Receivers

Outline Drawing

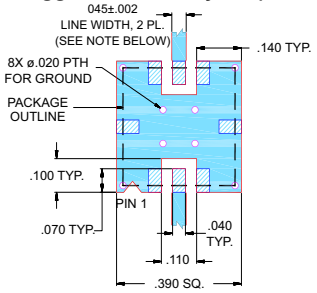


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.090	.040	.080
8.89	8.89	2.54	4.45	1.93	2.54	2.29	1.02	2.03

K	L	M	N	P	Q	R	wt.
.050	.040	.195	.390	.120	.390	.070	grams
1.27	1.02	4.95	9.91	3.05	9.91	1.78	0.25

Demo Board MCL P/N: TB-332
Suggested PCB Layout (PL-176)



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.

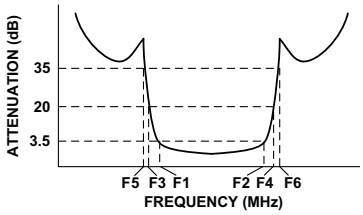
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

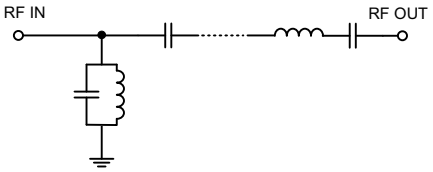
Bandpass Filter Electrical Specifications (T_{AMB}= 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3.5dB)	STOPBANDS (MHz) Loss > 20dB		Loss > 35dB		MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1) Passband	Stopband
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 15MHz	Max.	Typ.
172.5	160 - 185	129	230	80	245-1500	±10	1.8	18

Typical Frequency Response



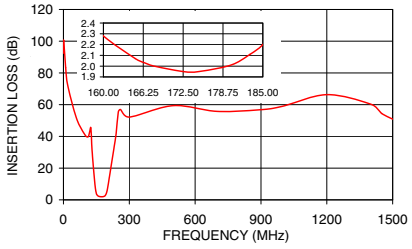
Functional Schematic



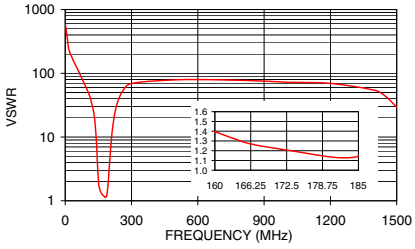
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg.)
0.3	102.77	579.06	157.5	3.47
20.0	70.70	217.15	159.0	1.84
80.0	45.56	78.97	160.0	1.01
129.0	33.58	24.14	162.0	-0.18
135.0	22.36	16.89	164.0	-0.88
142.0	11.22	7.63	166.0	-1.19
147.0	5.37	3.21	168.0	-1.25
160.0	2.37	1.40	170.0	-1.06
172.5	1.93	1.21	172.5	-0.60
185.0	2.24	1.14	175.0	-0.03
198.0	5.23	2.77	177.0	0.39
207.0	11.55	7.80	179.0	0.67
220.0	22.78	19.32	181.0	0.80
230.0	31.33	28.96	183.0	0.71
245.0	45.94	42.38	185.0	0.28
700.0	56.26	78.97	186.0	-0.11
1500.0	51.03	29.46	187.5	-0.95

INSERTION LOSS



VSWR



INSERTION PHASE & DEVIATION FROM LINEAR PHASE