

Bandpass Filter

Features

- linear phase, up to ± 3 deg typ. @ $F_c \pm 30$ MHz
- good VSWR, 1.3:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers
- navigation

HT-RBP-440+



50Ω 410 to 470 MHz

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 35dB)		Passband		Stopband Typ.
		F3	F4	F5	F6	Typ.	Max.	
F _c	F1 - F2							
440	410-470	320	650	200	850-1500	1.3	2.0	20

Maximum Ratings

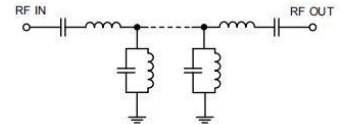
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

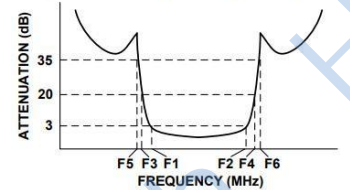
RF Power Input* 0.5 W at 25°C

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

Functional Schematic



Typical Frequency Response



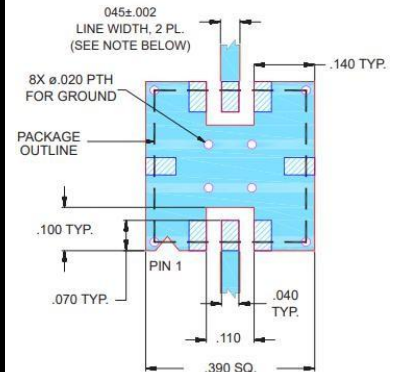
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.5	101.96	4669.18
50	62.44	4976.10
150	42.32	390.29
320	30.36	28.41
355	18.05	10.40
370	8.73	4.79
380	4.74	2.55
395	2.23	1.30
410	1.67	1.20
440	1.43	1.17
470	1.79	1.34
490	3.67	2.66
500	5.97	4.37
510	9.60	7.47
530	21.82	16.89
650	26.91	56.67
850	35.76	89.73
1500	36.15	58.75

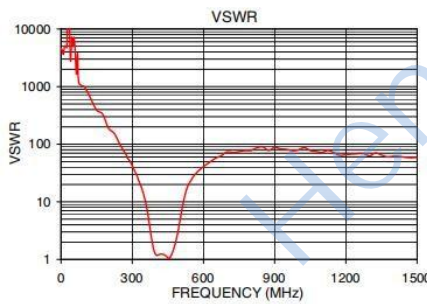
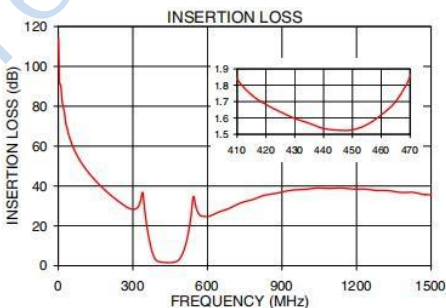
Pad Connections

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

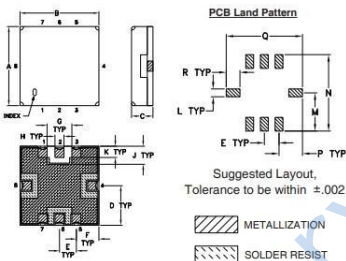
Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



- 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



Outline Drawing



Outline Dimensions: Unit (mm)

A	8.89	B	8.89	C	2.54
D	4.45	E	1.91	F	2.54
G	2.79	H	1.02	J	2.03
K	1.27	L	1.02	M	4.95
N	9.91	P	3.05	Q	9.91
R	1.78	wt	0.25		