

Bandpass Filter

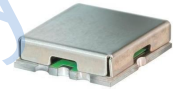
Features

- linear phase, up to ± 7 deg typ. @ $F_c \pm 45$ MHz
- good VSWR, 1.2:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers
- navigation

HT-RBP-415+



50Ω 404 to 426 MHz

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 35dB)		Passband Typ.	Max.	Stopband Typ.
F _c	F1 - F2	F3	F4	F5	F6			
415	404-426	225	550	120	750-2000	1.5	1.7	18

Maximum Ratings

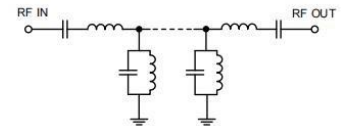
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

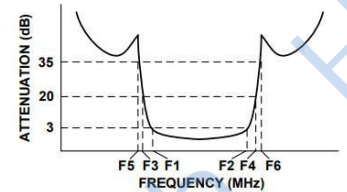
RF Power Input* 0.5 W at 25°C

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

Functional Schematic



Typical Frequency Response



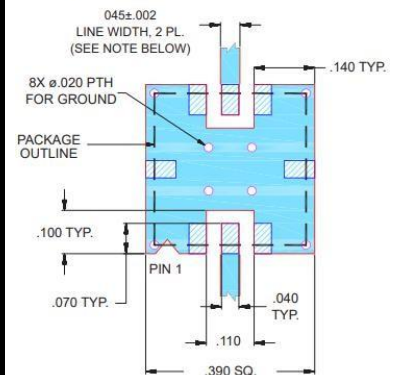
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.3	99.29	289.53
50	61.00	193.02
120	45.73	108.58
225	31.41	59.91
318	15.95	13.81
328	7.41	5.85
340	3.23	2.65
404	1.26	1.27
425	1.28	1.13
426	1.28	1.13
475	3.35	2.24
490	7.48	5.59
510	15.50	13.92
550	32.64	29.96
750	49.35	53.46
900	66.98	57.91
2000	47.47	33.42

Pad Connections

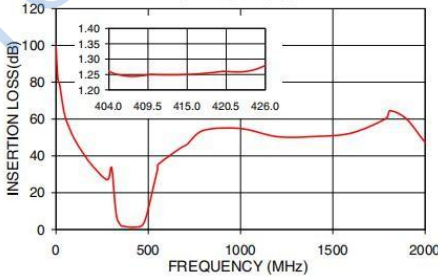
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

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

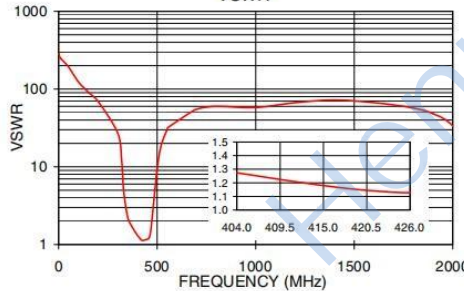


- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

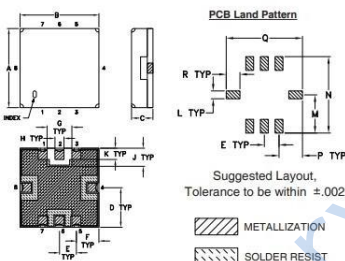
INSERTION LOSS



VSWR



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		