

Bandpass Filter

Features

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

Applications

- harmonic rejection
- transmitters / receivers
- navigation

Bandpass Filter Electrical Specifications ($T_{AMB} = 25^\circ\text{C}$)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 30dB)		Passband		Stopband
F_c	$F_1 - F_2$	F_3	F_4	F_5	F_6	Typ.	Max.	Typ.
440	410-470	320	650	200	850-1500	1.3	2.0	20

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

JY-RBP-440+



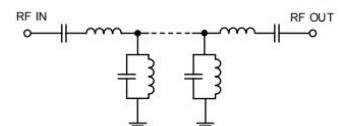
50Ω 410 to 470 MHz

Maximum Ratings

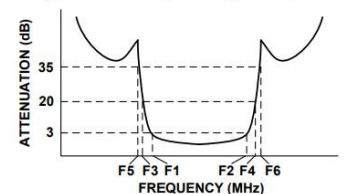
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5 W at 25°C

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

Functional Schematic



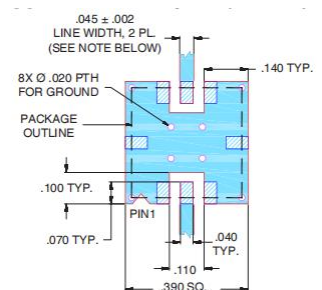
Typical Frequency Response



Pad Connections

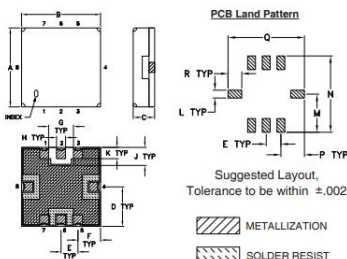
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8

Suggested PCB Layout



- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.025 ± 0.002 INCH. CUPPER: 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		