

# Bandpass Filter

## RBP-415+

50Ω 404 to 426 MHz

### Maximum Ratings

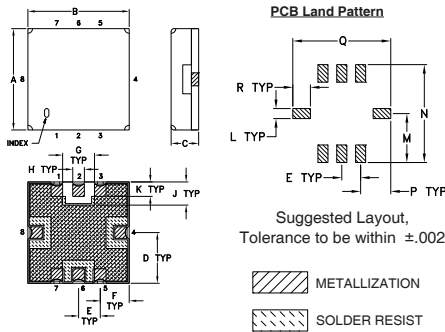
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

### Pin Connections

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

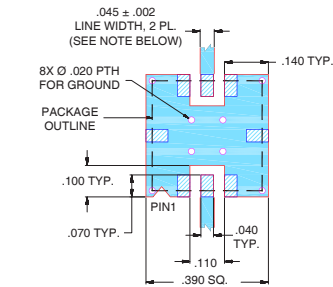
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.110	.040	.080
8.89	8.89	2.54	4.45	1.93	2.54	2.79	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:

- 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.
- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

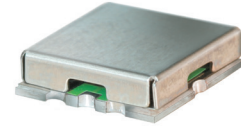
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

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

### Applications

- harmonic rejection
- transmitters / receivers
- CDMA



CASE STYLE: GP731

### +RoHS Compliant

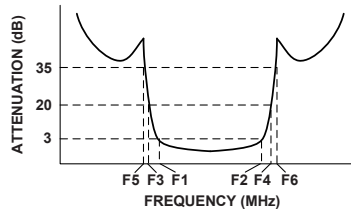
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Reel Size	Available Tape and Reel at no extra cost
7"	10, 20, 50, 100, 200
13"	500, 1000

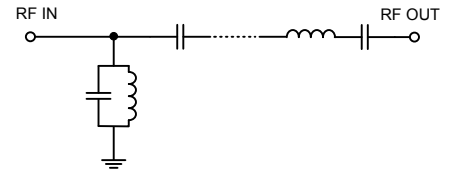
### Bandpass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1)	
		Loss > 20dB	Loss > 35dB	F3	F4		F5	F6
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 45MHz	Max.	Typ.
415	404 - 426	225	550	120	750-2000	±10	1.7	18

### Typical Frequency Response

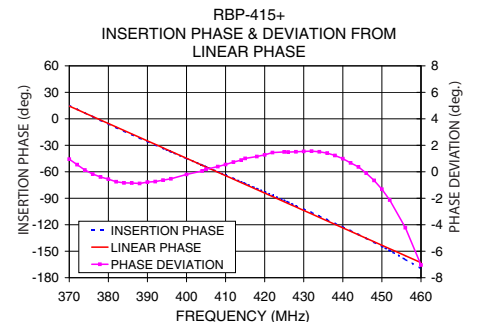
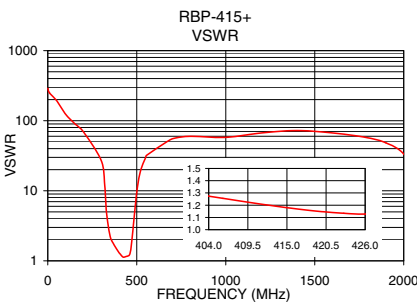
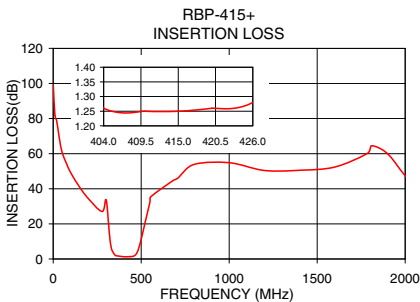


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg)
0.3	99.29	289.53	370.0	0.95
50.0	61.00	193.02	374.0	0.13
120.0	45.73	108.58	380.0	-0.56
225.0	31.41	59.91	386.0	-0.85
318.0	15.95	13.81	390.0	-0.78
328.0	7.41	5.85	396.0	-0.53
340.0	3.23	2.65	404.0	0.06
404.0	1.26	1.27	410.0	0.55
425.0	1.28	1.13	415.0	1.01
426.0	1.28	1.13	422.0	1.45
475.0	3.35	2.24	426.0	1.49
490.0	7.48	5.59	436.0	1.41
510.0	15.50	13.92	440.0	0.99
550.0	32.64	29.96	446.0	-0.11
750.0	49.35	53.46	450.0	-1.32
900.0	66.98	57.91	456.0	-4.22
2000.0	47.47	33.42	460.0	-7.04



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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