

Bandpass Filter

RBP-400+

50Ω 292 to 490 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 |

Features

- good VSWR, 1.5:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers
- navigation



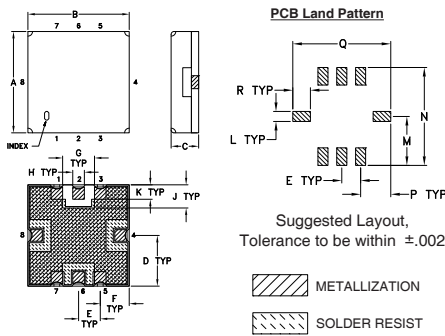
Generic photo used for illustration purposes only
CASE STYLE: GP731

+RoHS Compliant

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

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

Outline Drawing

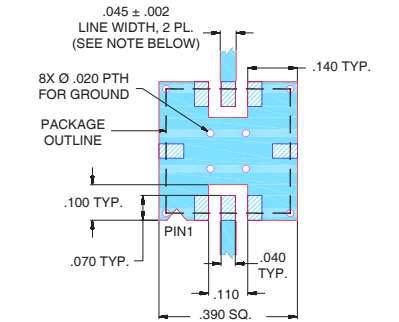


Outline Dimensions (inch/mm)

| | | | | | | | | |
|------|------|------|------|------|------|------|-------|------|
| 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 | 1.91 | 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 | |

Note: Please refer to case style drawing for details

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

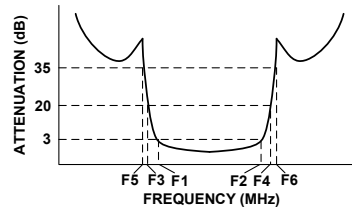


- NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES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

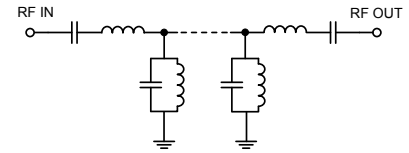
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 3dB) | STOPBANDS (MHz) | | | | VSWR (:1) | | |
|--------------------|-----------------------------|-----------------|-----|-------------|------------|-----------|------|----------|
| | | Loss > 20dB | | Loss > 35dB | | Passband | | Stopband |
| Fc | F1 - F2 | F3 | F4 | F5 | F6 | Typ. | Max. | Typ. |
| 391 | 292 - 490 | 230 | 620 | 200 | 700 - 2000 | 1.5 | 2.3 | 18 |

Typical Frequency Response

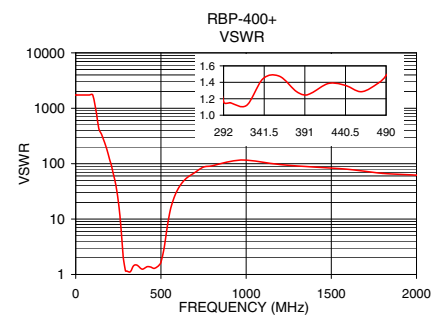
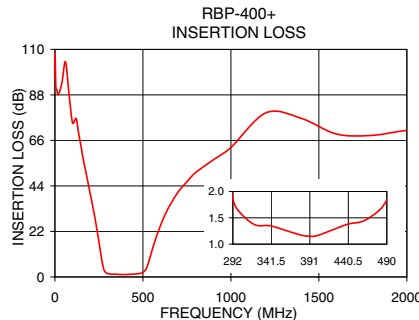


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 0.3 | 96.06 | 1737.18 |
| 200 | 40.54 | 115.81 |
| 230 | 27.24 | 49.64 |
| 252 | 16.05 | 18.50 |
| 267 | 8.01 | 6.11 |
| 277 | 3.93 | 2.45 |
| 292 | 1.86 | 1.16 |
| 300 | 1.62 | 1.15 |
| 391 | 1.15 | 1.25 |
| 400 | 1.16 | 1.27 |
| 490 | 1.84 | 1.48 |
| 518 | 3.85 | 2.91 |
| 535 | 7.85 | 6.58 |
| 560 | 15.13 | 16.72 |
| 620 | 28.98 | 43.44 |
| 700 | 41.02 | 69.49 |
| 1400 | 76.67 | 86.86 |
| 2000 | 70.80 | 62.05 |



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.
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