

Bandpass Filter

RBP-253+

50Ω 186 to 340 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, 1.7:1 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

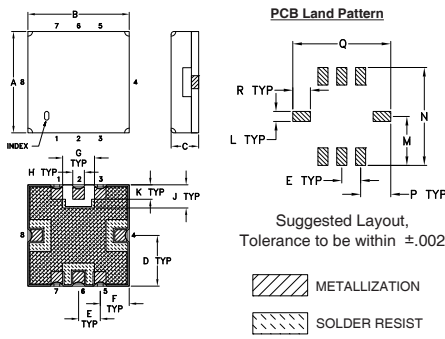
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

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 | |
| F _c | F ₁ - F ₂ | F ₃ | F ₄ | F ₅ | F ₆ | Typ. | Max. | Typ. |
| 253 | 186 - 340 | 140 | 440 | 120 | 500 - 3000 | 1.7 | 2.1 | 18 |

Outline Drawing

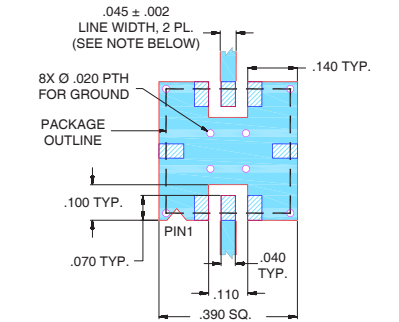


Outline Dimensions (inch/mm)

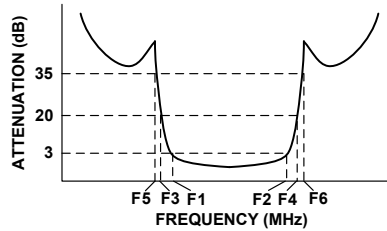
| | | | | | | | | |
|------|------|------|------|------|------|------|------|-------|
| A | B | C | D | E | F | G | H | J |
| .350 | .350 | .100 | .175 | .075 | .100 | .110 | .040 | .080 |
| 8.89 | 8.89 | 2.54 | 4.45 | 1.91 | 2.54 | 2.79 | 1.02 | 2.03 |
| K | L | M | N | P | Q | R | | wt |
| .050 | .040 | .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

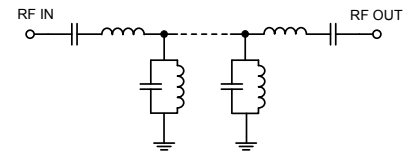
Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



Typical Frequency Response

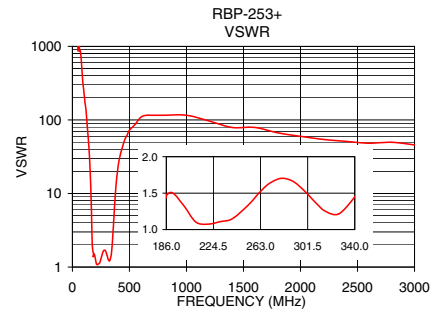
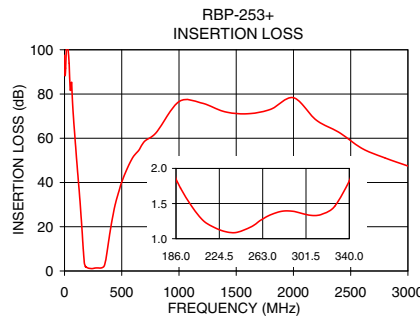


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 0.3 | 97.50 | 1737.18 |
| 50 | 81.95 | 868.59 |
| 120 | 41.47 | 133.63 |
| 140 | 28.14 | 54.29 |
| 163 | 10.51 | 9.53 |
| 170 | 5.40 | 3.68 |
| 186 | 1.82 | 1.47 |
| 253 | 1.17 | 1.34 |
| 263 | 1.28 | 1.52 |
| 300 | 1.35 | 1.51 |
| 340 | 1.82 | 1.45 |
| 345 | 2.16 | 1.69 |
| 362 | 5.38 | 4.23 |
| 380 | 11.59 | 11.61 |
| 440 | 29.39 | 43.44 |
| 500 | 40.20 | 72.39 |
| 2000 | 78.34 | 59.91 |
| 3000 | 47.45 | 45.72 |



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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