

High Pass Filter

RHP-305+

50Ω 420 to 3200 MHz

Maximum Ratings

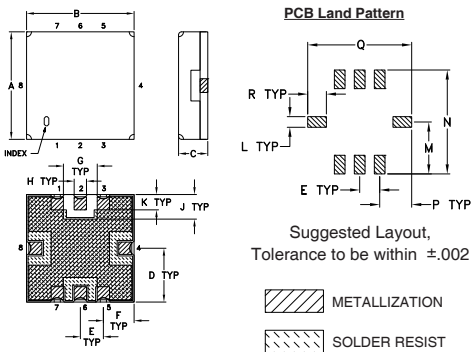
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W at 25°C |

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

Pin Connections

| | |
|--------|------------------|
| INPUT | 2 |
| OUTPUT | 6 |
| GROUND | 1, 3, 4, 5, 7, 8 |

Outline Drawing

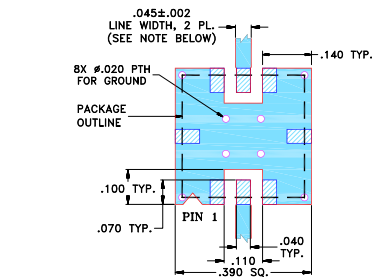


Outline Dimensions (inch/mm)

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

Note: Please refer to case style drawing for details

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.
- Blue square DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
Red square DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.4dB typ. @ passband
- high rejection
- shielded case
- aqueous washable

Applications

- transmitters / receivers
- sub-harmonic rejection
- military communications



Generic photo used for illustration purposes only
CASE STYLE: GP731

+RoHS Compliant

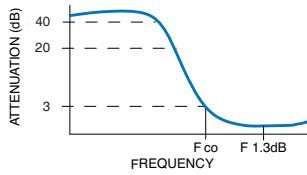
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

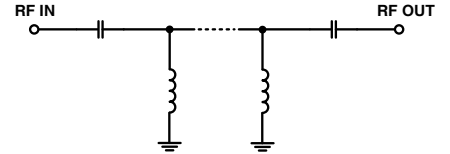
High Pass Filter Electrical Specifications (T_{AMB} = 25°C)

| STOPBAND (MHz) | f _{co} , MHz Nom. | PASSBAND (MHz) | VSWR (:1) |
|----------------|----------------------------|----------------|-----------------------------|
| (Loss > 40dB) | (Loss > 20dB) | (Loss < 1dB) | Stopband Typ. Passband Typ. |
| DC - 160 | DC - 215 | 420 - 3200 | 18 1.2 |

Typical Frequency Response

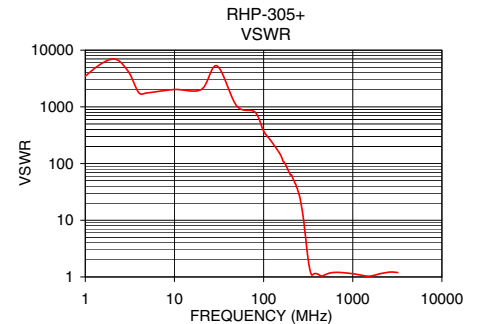
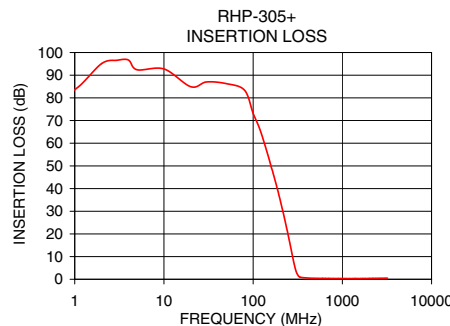


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1.0 | 83.65 | 3465.64 |
| 20.0 | 84.93 | 2026.91 |
| 50.0 | 86.29 | 1038.38 |
| 100.0 | 73.12 | 374.58 |
| 120.0 | 65.69 | 256.53 |
| 160.0 | 49.30 | 127.03 |
| 215.0 | 30.10 | 53.00 |
| 260.0 | 15.22 | 21.85 |
| 285.0 | 7.59 | 8.38 |
| 300.0 | 4.04 | 4.06 |
| 305.0 | 3.17 | 3.21 |
| 320.0 | 1.57 | 1.78 |
| 350.0 | 0.78 | 1.08 |
| 420.0 | 0.53 | 1.09 |
| 700.0 | 0.36 | 1.21 |
| 1000.0 | 0.32 | 1.14 |
| 2000.0 | 0.37 | 1.13 |
| 3200.0 | 0.50 | 1.20 |



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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