

Surface Mount Bandpass Filter

SXBP-157+

50Ω 150 to 164 MHz

Maximum Ratings

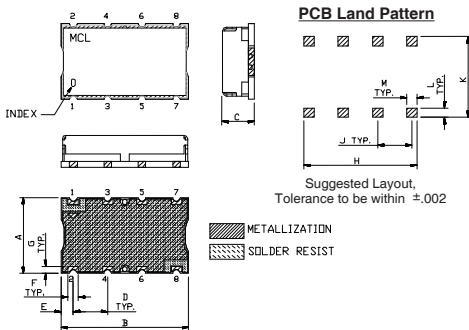
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W Max. |

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

Pin Connections

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

Outline Drawing

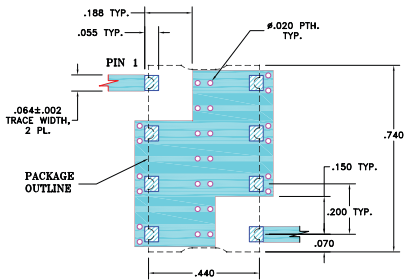


Outline Dimensions (inch/mm)

| A | B | C | D | E | F | |
|-------|-------|------|-------|------|------|-----------|
| .44 | .74 | .27 | .200 | .07 | .060 | |
| 11.18 | 18.80 | 6.86 | 5.08 | 1.78 | 1.52 | |
| G | H | J | K | L | M | wt. grams |
| .040 | .660 | .200 | .470 | .055 | .060 | 3.0 |
| 1.02 | 16.76 | 5.08 | 11.94 | 1.40 | 1.52 | |

Note: Please refer to case style drawing for details

Demo Board MCL P/N: TB-368 Suggested PCB Layout (PL-230)



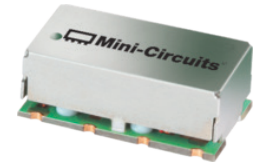
- NOTE:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER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

Features

- excellent rejection
- good VSWR, 1.2:1 typ @ passband
- aqueous washable

Applications

- receivers / transmitters
- professional mobile radio / public access mobile radio (PMR/ PAMR)
- CDMA base station



Generic photo used for illustration purposes only
CASE STYLE: HF1139

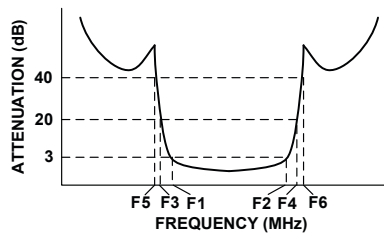
+RoHS Compliant

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

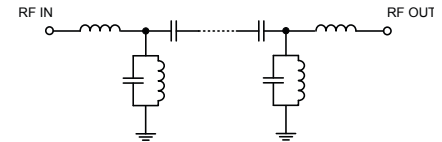
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 3dB) | STOPBANDS (MHz) | | | | VSWR (:1) | | |
|--------------------|---------------------------------|-----------------|----------------|----------------|----------------|-----------|------|----------|
| | | Loss > 20dB | | Loss > 40dB | | Passband | | Stopband |
| F _c | F ₁ - F ₂ | F ₃ | F ₄ | F ₅ | F ₆ | Typ. | Max. | Typ. |
| 157 | 150 - 164 | 131 | 187 | 115 | 215 - 2000 | 1.2 | 1.7 | 20 |

Typical Frequency Response

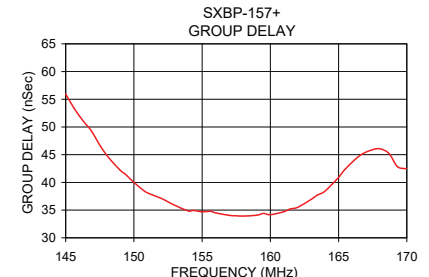
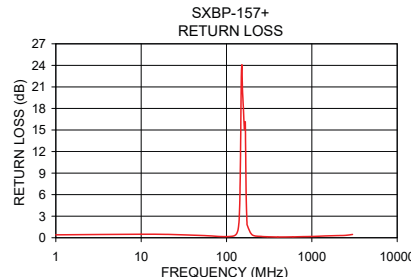
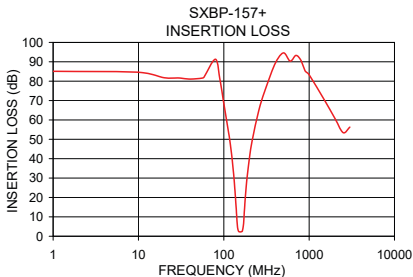


Functional Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | | Return Loss (dB) | Frequency (MHz) | Group Delay (nSec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
| | \bar{x} | σ | | | |
| 1.0 | 85.08 | 2.10 | 0.41 | 147.5 | 47.32 |
| 115.0 | 52.32 | 0.36 | 0.19 | 149.0 | 43.31 |
| 131.0 | 30.98 | 0.35 | 0.54 | 150.0 | 40.88 |
| 139.0 | 15.86 | 0.38 | 1.77 | 151.0 | 39.12 |
| 143.0 | 7.41 | 0.39 | 4.92 | 152.5 | 36.95 |
| 146.0 | 3.62 | 0.21 | 11.89 | 154.0 | 35.47 |
| 150.0 | 2.44 | 0.03 | 24.24 | 155.0 | 34.82 |
| 157.0 | 2.22 | 0.03 | 18.56 | 156.0 | 34.59 |
| 164.0 | 2.53 | 0.04 | 15.44 | 157.0 | 34.33 |
| 169.0 | 4.80 | 0.31 | 7.92 | 159.0 | 33.98 |
| 172.0 | 9.17 | 0.42 | 3.23 | 160.0 | 33.89 |
| 178.0 | 18.91 | 0.32 | 1.19 | 161.4 | 34.36 |
| 187.0 | 29.82 | 0.22 | 0.64 | 163.0 | 35.53 |
| 215.0 | 49.38 | 0.19 | 0.31 | 163.4 | 36.37 |
| 750.0 | 93.83 | 3.88 | 0.13 | 164.0 | 36.97 |
| 1000.0 | 83.28 | 1.86 | 0.18 | 165.4 | 40.43 |
| 1500.0 | 70.47 | 0.42 | 0.26 | 166.7 | 43.96 |
| 2000.0 | 60.88 | 0.91 | 0.30 | 168.0 | 46.31 |



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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