

Surface Mount Bandpass Filter

BPF-C141+

50Ω 110 to 180 MHz

Maximum Ratings

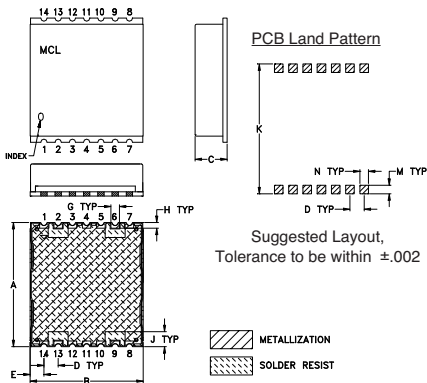
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.2W Max. |

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

Pin Connections

| | |
|---------------|-----------------------------|
| INPUT | 2 |
| OUTPUT | 9 |
| NOT CONNECTED | 6,13 |
| GROUND | 1, 3, 4, 5, 7,8,10,11,12,14 |

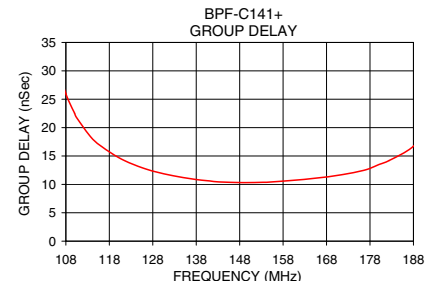
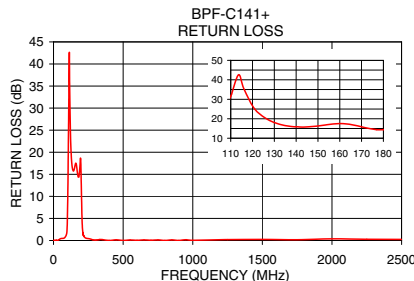
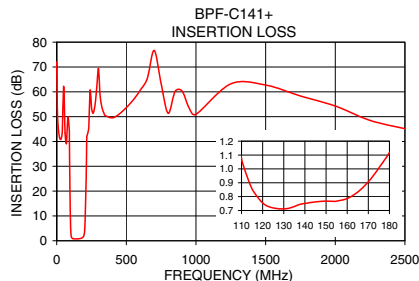
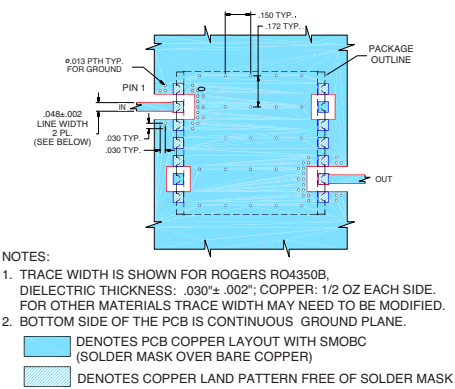
Outline Drawing



Outline Dimensions (inch/mm)

| | A | B | C | D | E | G | H | J | K | M | N | wt |
|--|-------|-------|------|------|------|------|------|------|-------|------|------|-------|
| | .870 | .800 | .25 | .100 | .097 | .060 | .040 | .105 | .910 | .060 | .060 | grams |
| | 22.10 | 20.32 | 6.35 | 2.54 | 2.46 | 1.52 | 1.02 | 2.67 | 23.11 | 1.52 | 1.52 | 2.85 |

Demo Board MCL P/N: TB-500+ Suggested PCB Layout (PL-294)



Features

- Good VSWR, 1.3:1 Typ @ Passband
- Flat Group Delay
- Shielded case
- Aqueous washable

Applications

- Military communications
- Receivers / Transmitters
- Harmonic rejection



CASE STYLE: HU1186
 PRICE: \$26.95 ea. QTY (1-9)

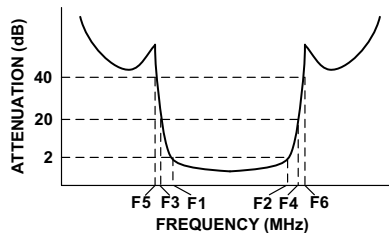
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

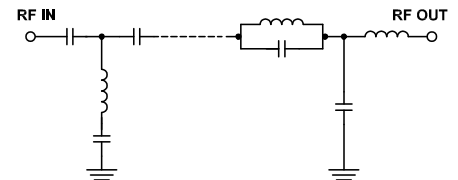
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 2dB) | STOPBANDS (MHz) | | | | VSWR (:1) | | |
|--------------------|---------------------------------|-----------------|----------------|----------------|----------------|-----------|------|---------------|
| | | Loss > 20dB | Loss 40dB Typ. | F3 | F4 | F5 | F6 | Passband Typ. |
| F _c | F ₁ - F ₂ | F ₃ | F ₄ | F ₅ | F ₆ | Typ. | Max. | Typ. |
| 141 | 110 - 180 | 92 | 213 | 90 | 217 - 2500 | 1.3 | 1.7 | 18 |

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 | | | |
| 0.5 | 72.15 | 0.59 | 0.01 | 108.0 | 25.97 |
| 90.0 | 44.81 | 2.20 | 1.10 | 110.0 | 22.54 |
| 92.0 | 37.23 | 1.95 | 1.28 | 113.6 | 18.47 |
| 96.0 | 17.01 | 1.27 | 1.96 | 116.0 | 16.79 |
| 98.4 | 9.41 | 0.97 | 3.33 | 120.8 | 14.45 |
| 100.8 | 4.46 | 0.58 | 6.68 | 126.4 | 12.72 |
| 103.2 | 2.27 | 0.22 | 12.23 | 132.0 | 11.63 |
| 110.0 | 1.07 | 0.03 | 31.61 | 137.6 | 10.90 |
| 120.8 | 0.74 | 0.01 | 25.27 | 141.0 | 10.62 |
| 141.0 | 0.75 | 0.03 | 15.86 | 148.8 | 10.31 |
| 160.0 | 0.79 | 0.03 | 17.53 | 153.6 | 10.37 |
| 180.0 | 1.12 | 0.03 | 14.39 | 154.4 | 10.38 |
| 199.2 | 3.19 | 0.28 | 13.24 | 160.0 | 10.70 |
| 204.0 | 8.23 | 0.82 | 5.73 | 165.6 | 11.09 |
| 208.8 | 18.43 | 1.13 | 2.45 | 171.2 | 11.67 |
| 213.0 | 30.56 | 1.54 | 1.30 | 176.8 | 12.52 |
| 217.0 | 42.20 | 1.22 | 1.00 | 180.0 | 13.48 |
| 2500.0 | 45.14 | 1.32 | 0.24 | 188.0 | 16.72 |



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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