

Surface Mount Bandpass Filter

BPF-C650+

50Ω 560 to 780 MHz

Maximum Ratings

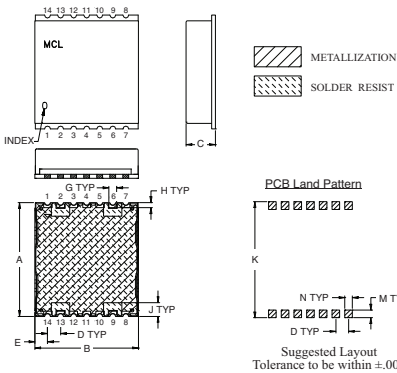
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W Max. |

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

Pin Connections

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

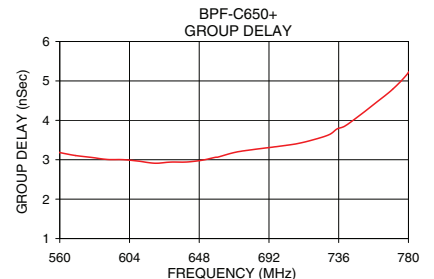
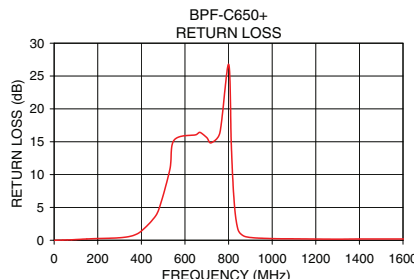
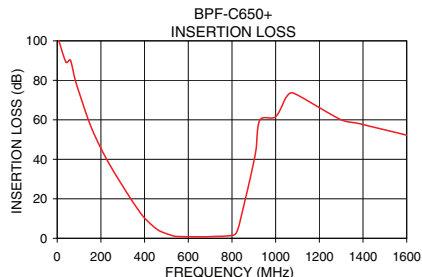
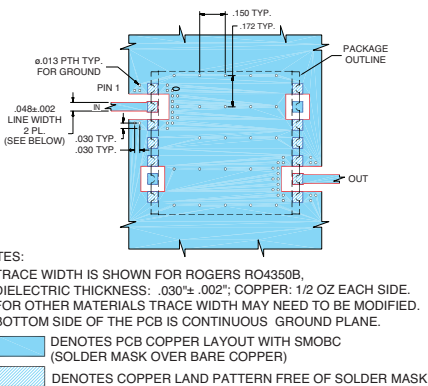
Outline Drawing



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

- Flat group delay
- High rejection
- Shielded case
- Aqueous washable

Applications

- Receivers / transmitters
- Wireless communication systems



CASE STYLE: HU1186
PRICE: \$34.95 ea. QTY (1-9)

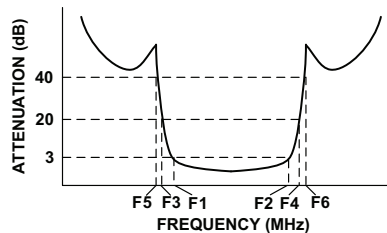
+RoHS Compliant

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

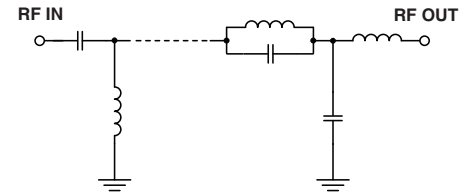
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| 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. |
| 650 | 560 - 780 | 280 | 890 | 185 | 920 - 1600 | 1.4 | 1.8 | 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 | | | |
| 2.0 | 101.98 | 9.04 | 0.00 | 560.0 | 3.18 |
| 100.0 | 74.01 | 0.79 | 0.11 | 570.0 | 3.11 |
| 185.0 | 48.87 | 0.16 | 0.24 | 580.0 | 3.06 |
| 280.0 | 29.90 | 0.14 | 0.35 | 600.0 | 3.00 |
| 340.0 | 19.49 | 0.15 | 0.54 | 610.0 | 2.96 |
| 400.0 | 10.25 | 0.17 | 1.40 | 630.0 | 2.94 |
| 450.0 | 5.12 | 0.09 | 3.06 | 640.0 | 2.94 |
| 500.0 | 2.23 | 0.06 | 6.40 | 650.0 | 2.99 |
| 520.0 | 1.53 | 0.05 | 8.96 | 660.0 | 3.07 |
| 560.0 | 0.82 | 0.01 | 17.93 | 680.0 | 3.25 |
| 650.0 | 0.75 | 0.02 | 16.06 | 700.0 | 3.35 |
| 780.0 | 1.16 | 0.04 | 19.23 | 710.0 | 3.41 |
| 820.0 | 2.80 | 0.14 | 8.88 | 720.0 | 3.51 |
| 830.0 | 5.62 | 0.24 | 4.20 | 730.0 | 3.64 |
| 847.0 | 13.23 | 0.39 | 1.37 | 740.0 | 3.86 |
| 890.0 | 33.65 | 0.40 | 0.47 | 750.0 | 4.15 |
| 920.0 | 51.96 | 0.95 | 0.36 | 770.0 | 4.79 |
| 1600.0 | 53.63 | 1.11 | 0.19 | 780.0 | 5.21 |

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ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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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-Circuits' 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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