

Coaxial Bandpass Filter

BBP-140+

50Ω

130 to 150 MHz



Generic photo used for illustration purposes only
CASE STYLE: FF55

The Big Deal

- High rejection, 50 dB typ.
- Good VSWR, 1.3:1 typ.
- Fast roll-off
- Narrow bandwidth
- Connectorized package

Product Overview

BBP-140+ is a 50Ω bandpass filter in a connectorized package. This bandpass filter covers from 130 to 150 MHz, these units offer good matching within the passband and high rejection. This unit uses a miniature high Q capacitors and wire welded inductors for high reliability. It has repeatable performance across production lots and consistent performance across temperature.

Key Features

| Feature | Advantages |
|----------------------------|--|
| High rejection, 50 dB typ. | This enables the filter to attenuate spurious signals and reject harmonics for broad frequency band. |
| Good VSWR, 1.3:1 typ. | This provides well matched input and output ports. |
| Connectorized package | Connectorized package is easy to interface with other devices and well suited for test setups. |

Notes

- A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document 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



Bandpass Filter

50Ω 130 to 150 MHz

BBP-140+



Generic photo used for illustration purposes only

CASE STYLE: FF55

Connectors Model
BNC BBP-140+

Features

- High rejection, 50 dB typ.
- Fast roll-off
- Good VSWR, 1.3:1 typ.
- Rugged shielded case
- Connectorized package

Applications

- Receivers/Transmitters
- Wireless communication systems
- Radio link
- Test setup

Electrical Specifications at 25°C

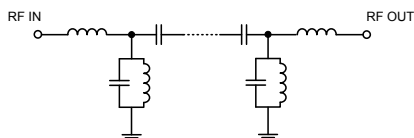
| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------|------------------|-----------------|------|------|------|------|
| Pass Band | Center frequency | - | - | 140 | - | MHz |
| | Insertion Loss | F1-F2 | - | 2.6 | 3.5 | dB |
| | VSWR | F1-F2 | - | 1.3 | 1.7 | :1 |
| Stop Band, Lower | Insertion Loss | DC-F3 | 40 | 47 | - | dB |
| | | F3-F4 | 20 | 30 | - | dB |
| | VSWR | DC-F4 | - | 20 | - | :1 |
| Stop Band, Upper | Insertion Loss | F5-F6 | 20 | 30 | - | dB |
| | | F6-F7 | 40 | 50 | - | dB |
| | VSWR | F7-F8 | - | 40 | - | dB |
| | | F7-F8 | - | 20 | - | :1 |

Maximum Ratings

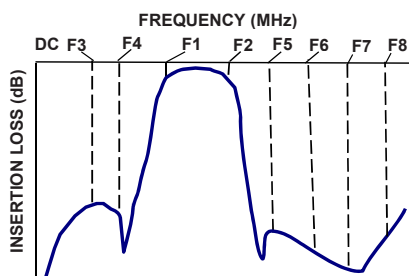
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5 W max. |

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

Functional Schematic



Typical Frequency Response

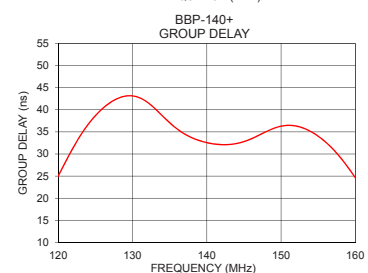
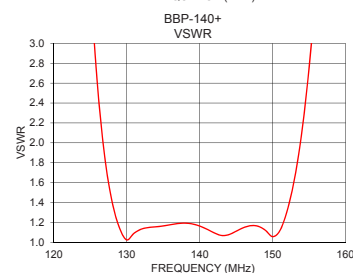
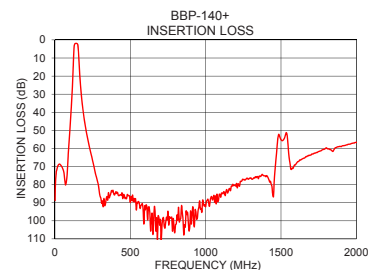
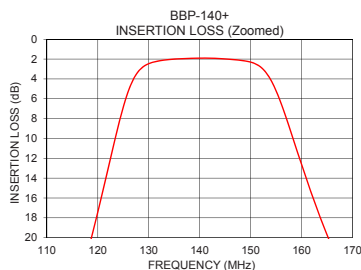


+RoHS Compliant

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

Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (ns) |
|-----------------|---------------------|-----------|-----------------|------------------|
| 1 | 88.73 | 41.17 | 130 | 43.14 |
| 10 | 72.53 | 36.97 | 131 | 42.68 |
| 30 | 68.65 | 41.88 | 132 | 41.70 |
| 50 | 70.79 | 58.76 | 133 | 40.29 |
| 100 | 48.70 | 94.69 | 134 | 38.65 |
| 110 | 35.20 | 57.90 | 135 | 37.05 |
| 113 | 30.47 | 44.17 | 136 | 35.65 |
| 118 | 21.49 | 22.91 | 137 | 34.53 |
| 128 | 3.22 | 1.41 | 138 | 33.66 |
| 130 | 2.46 | 1.02 | 139 | 33.02 |
| 140 | 1.91 | 1.16 | 140 | 32.56 |
| 150 | 2.31 | 1.06 | 141 | 32.25 |
| 153 | 3.35 | 1.64 | 142 | 32.11 |
| 166 | 20.99 | 16.73 | 143 | 32.14 |
| 175 | 30.36 | 28.23 | 144 | 32.36 |
| 185 | 38.10 | 40.14 | 145 | 32.80 |
| 210 | 51.58 | 68.10 | 146 | 33.43 |
| 1000 | 92.21 | 0.00 | 147 | 34.23 |
| 1500 | 55.10 | 40.67 | 148 | 35.06 |
| 2000 | 56.64 | 31.20 | 150 | 36.29 |



Notes

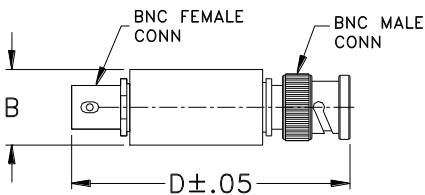
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document 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



Coaxial Connections

| | |
|----------|------------|
| PORT - 1 | BNC-Male |
| PORT - 2 | BNC-Female |

Outline Drawing



Outline Dimensions (inch mm)

| | | | | | |
|----|-------|----|-------|----|-------|
| A | B | C | D | E | Wt. |
| -- | 0.57 | -- | 2.59 | -- | grams |
| -- | 14.47 | -- | 65.79 | -- | 40 |

Note: Please refer to case style drawing for details

Notes
A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document 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



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Mini-Circuits:](#)

[BBP-140+](#)