

Coaxial Low Pass Filter

ZX75LP-105+

50Ω DC to 105 MHz

The Big Deal

- High rejection
- Low Insertion loss, 1.3 dB typical in passband
- Fast roll-off
- Good VSWR
- Connectorized package



CASE STYLE: KE1467

Pricing: **\$49.95** (QTY 1-9)

Product Overview

ZX75LP-105+ is a 50Ω low pass filter built in a connectorized package. Covering DC-105 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. This will find its applications in receivers and transmitters to suppress spurious emission. This can also be used in wide-band down convertors and baseband circuitry. It has repeatable performance across production lots and consistent performance across temperature.

Key Features

| Feature | Advantages |
|-----------------------------|---|
| Low passband insertion loss | Suitable for high performance application |
| Fast roll-off | Provides very good adjacent band rejection |
| Connectorized package | The connectorized package is easy to interface with other devices and well suited for test setups |
| Good VSWR | Provides good interface when used with other devices. |



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

IF/RF MICROWAVE COMPONENTS

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.

Low Pass Filter

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Features

- High rejection
- Low Insertion loss
- Fast roll-off
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Applications

- Baseband
- Harmonic rejection
- Wideband down convertor
- Satellite
- Wireless communications
- Receivers / Transmitters

| Connectors | Model | Price | Qty. |
|------------|---------------|-------------|-------|
| SMA-MF | ZX75LP-105-S+ | \$49.95 ea. | (1-9) |

Electrical Specifications at 25°C

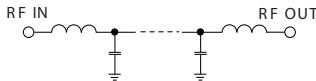
| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit | |
|-----------|----------------|-----------------|-----------|------|------|------|----|
| Pass Band | Insertion Loss | DC-F1 | DC -105 | — | 1.3 | 2.0 | dB |
| | Freq. Cut-Off | F2 | 115 | — | 3.0 | — | dB |
| | VSWR | DC-F1 | DC -105 | — | 1.2 | 1.6 | :1 |
| Stop Band | Rejection Loss | F3-F4 | 150 -1000 | 20 | 33 | — | dB |
| | VSWR | F3-F4 | 150 -1000 | — | 26 | — | :1 |

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.

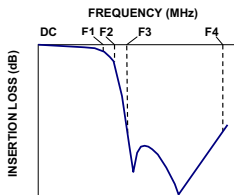
Functional Schematic



Typical Performance Data at 25°C

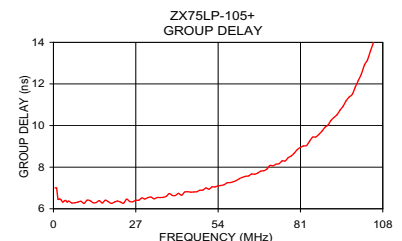
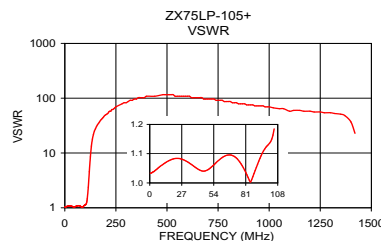
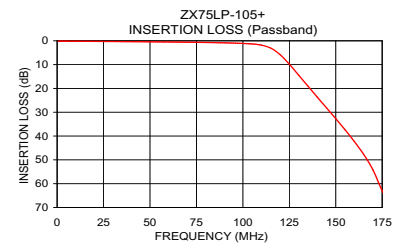
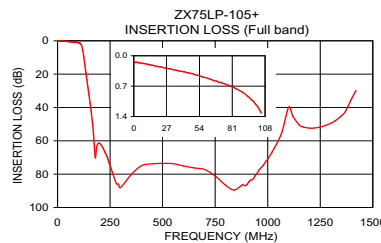
| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|-----------|-----------------|--------------------|
| 1 | 0.15 | 1.03 | 1 | 7.00 |
| 20 | 0.25 | 1.08 | 10 | 6.26 |
| 74 | 0.64 | 1.08 | 20 | 6.32 |
| 105 | 1.32 | 1.18 | 30 | 6.47 |
| 115 | 3.07 | 2.38 | 40 | 6.64 |
| 120 | 5.80 | 4.56 | 50 | 7.00 |
| 125 | 9.83 | 8.51 | 55 | 7.12 |
| 130 | 14.39 | 13.39 | 60 | 7.36 |
| 140 | 23.61 | 21.73 | 65 | 7.67 |
| 150 | 32.69 | 27.59 | 70 | 7.91 |
| 180 | 70.23 | 41.37 | 75 | 8.30 |
| 200 | 61.56 | 49.64 | 80 | 8.85 |
| 250 | 74.74 | 69.49 | 93 | 10.52 |
| 300 | 88.00 | 82.73 | 85 | 9.44 |
| 400 | 74.90 | 108.58 | 90 | 10.02 |
| 500 | 73.56 | 115.81 | 95 | 10.93 |
| 600 | 75.10 | 108.58 | 98 | 11.50 |
| 700 | 77.23 | 96.51 | 100 | 12.17 |
| 800 | 86.64 | 86.86 | 102 | 12.91 |
| 1000 | 70.95 | 69.49 | 105 | 14.01 |

Typical Frequency Response



+ 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.



For detailed performance specs & shipping online see web site

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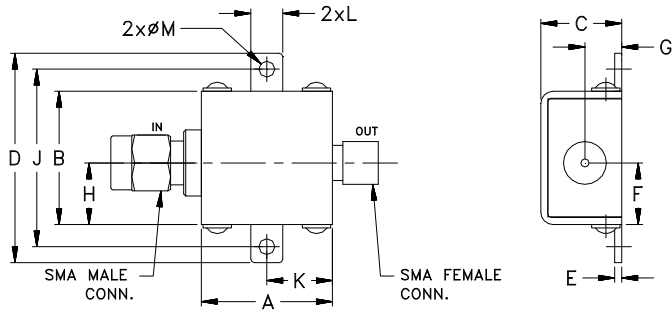
IFIRF MICROWAVE COMPONENTS

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Coaxial Connections

| | |
|--------|------------|
| INPUT | SMA-Male |
| OUTPUT | SMA-Female |

Outline Drawing



Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

| | | | | | | |
|-------|-------|-------|-------|------|-------|------|
| A | B | C | D | E | F | G |
| 0.74 | .75 | .46 | 1.18 | .04 | .349 | .21 |
| 18.80 | 19.05 | 11.68 | 29.97 | 1.02 | 8.86 | 5.33 |
| H | J | K | L | M | wt | |
| .349 | 1.00 | .37 | .18 | .09 | grams | |
| 8.86 | 25.40 | 9.40 | 4.57 | 2.29 | 24.4 | |