

50Ω

DC to 137 MHz

The Big Deal

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



Generic photo used for illustration purposes only
CASE STYLE: KE1467

Product Overview

ZX75LP-137-S+ is a 50Ω low pass filter built in a connectorized package. Covering DC-137 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 and harmonics. 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. |

Notes

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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



Low Pass Filter

50Ω DC to 137 MHz

ZX75LP-137-S+



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| Connectors | Model |
|------------|---------------|
| SMA-MF | ZX75LP-137-S+ |

Features

- High rejection
- Low insertion loss
- Fast roll-off
- Good VSWR
- Connectorized package

Applications

- Satellite
- Wireless communications
- Receivers / Transmitters

Electrical Specifications at 25°C

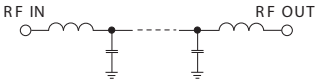
| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-----------|----------------|-----------------|----------|------|------|--------|
| Pass Band | Insertion Loss | DC-F1 | DC-137 | — | 1.3 | 2.0 dB |
| | Freq. Cut-Off | F2 | 150 | — | 3.0 | dB |
| | VSWR | DC-F1 | DC-137 | — | 1.2 | 1.7 :1 |
| Stop Band | Rejection Loss | F3-F4 | 195-1500 | 20 | 33 | dB |
| | VSWR | F3-F4 | 195-1500 | — | 31 | — :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.

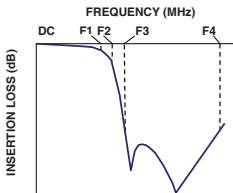
Functional Schematic



Typical Performance Data at 25°C

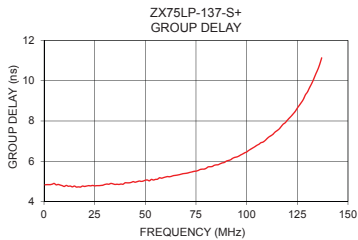
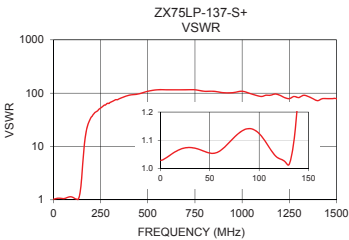
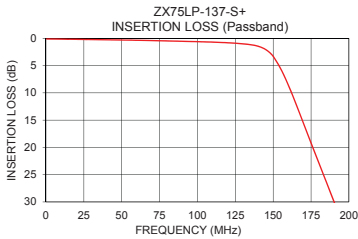
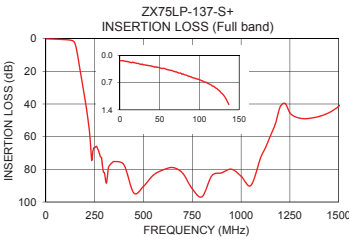
| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|-----------|-----------------|--------------------|
| 1 | 0.13 | 1.03 | 1 | 4.84 |
| 50 | 0.32 | 1.03 | 5 | 4.90 |
| 100 | 0.62 | 1.12 | 10 | 4.75 |
| 137 | 1.26 | 1.17 | 30 | 4.85 |
| 150 | 3.30 | 2.64 | 40 | 4.93 |
| 160 | 8.58 | 7.41 | 50 | 5.06 |
| 165 | 12.00 | 11.24 | 55 | 5.10 |
| 180 | 22.75 | 22.87 | 60 | 5.22 |
| 195 | 33.40 | 31.03 | 65 | 5.30 |
| 210 | 44.68 | 36.97 | 70 | 5.40 |
| 250 | 66.86 | 49.64 | 75 | 5.51 |
| 500 | 90.41 | 102.19 | 80 | 5.65 |
| 750 | 91.98 | 108.58 | 90 | 6.01 |
| 800 | 96.76 | 108.58 | 95 | 6.21 |
| 850 | 83.90 | 102.19 | 100 | 6.46 |
| 900 | 82.17 | 102.19 | 110 | 7.12 |
| 950 | 79.89 | 96.51 | 120 | 8.03 |
| 1000 | 84.19 | 102.19 | 130 | 9.44 |
| 1250 | 45.43 | 72.39 | 135 | 10.53 |
| 1500 | 41.38 | 75.53 | 137 | 11.13 |

Typical Frequency Response



+RoHS Compliant

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



Notes

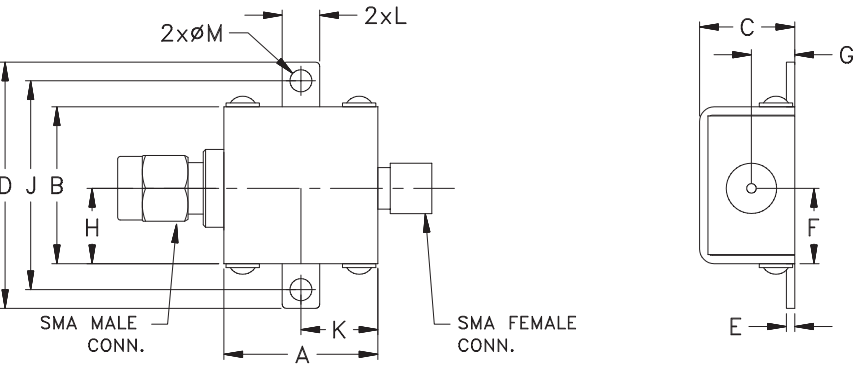
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Coaxial Connections

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

Outline Drawing



Outline Dimensions (inch mm)

| | | | | | | |
|-------|-------|-------|-------|------|------|-------|
| A | B | C | D | E | F | G |
| .74 | .75 | .46 | 1.18 | .04 | .362 | .21 |
| 18.80 | 19.05 | 11.68 | 29.97 | 1.02 | 9.19 | 5.33 |
| H | J | K | L | M | | Wt. |
| .362 | 1.00 | .37 | .18 | .11 | | grams |
| 9.19 | 25.40 | 9.40 | 4.57 | 2.79 | | 24.4 |

Note: Please refer to case style drawing for details

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