Coaxial **Low Pass Filter**

50Ω DC to 264 MHz

ZX75LP-264-S+

The Big Deal

- High rejection
- Low Insertion loss, 1.1 dB typical in passband
- Fast roll-off
- Good VSWR
- Connectorized package



Product Overview

ZX75LP-264-S+ is a 50Ω low pass filter built in a connectorized package. Covering DC-264 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 also finds application in ADC/DAC filtering and clock 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. |

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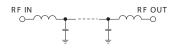
Features

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

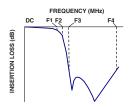
Applications

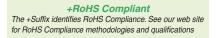
- ADC/DAC
- · Clock circuitry
- Satellite
- Wireless communications
- Receivers / Transmitters

Functional Schematic



Typical Frequency Response



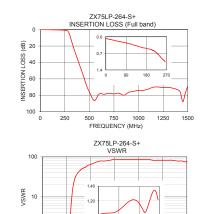


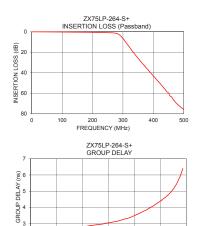
| Maximum | Ratings |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W max. |
| | |

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

Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|--------------------|------------------------|--------------|--------------------|-----------------------|
| 1 | 0.07 | 1.02 | 1 | 2.76 |
| 35 | 0.14 | 1.03 | 5 | 2.73 |
| 85 | 0.24 | 1.07 | 25 | 2.68 |
| 190 | 0.51 | 1.12 | 50 | 2.70 |
| 264 | 1.05 | 1.22 | 75 | 2.75 |
| 288 | 2.96 | 2.66 | 100 | 2.85 |
| 300 | 6.51 | 6.32 | 110 | 2.90 |
| 315 | 12.44 | 14.87 | 120 | 2.95 |
| 350 | 25.90 | 33.42 | 130 | 3.02 |
| 365 | 31.16 | 38.61 | 140 | 3.07 |
| 400 | 43.03 | 48.26 | 150 | 3.14 |
| 450 | 59.63 | 56.04 | 160 | 3.24 |
| 475 | 69.45 | 62.05 | 170 | 3.34 |
| 500 | 75.77 | 64.35 | 180 | 3.49 |
| 600 | 78.27 | 78.97 | 200 | 3.83 |
| 750 | 78.21 | 86.86 | 230 | 4.52 |
| 1000 | 73.82 | 86.86 | 240 | 4.82 |
| 1200 | 69.83 | 82.73 | 250 | 5.27 |
| 1300 | 70.23 | 82.73 | 260 | 5.98 |
| 1500 | 69.24 | 75.53 | 264 | 6.40 |





FREQUENCY (MHz)

2

45 90 135 180 225 270

1500



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500 750 1000 1250

0 250





CASE STYLE: KE1467 Model Connectors SMA-M\F ZX75LP-264-S+

Electrical Specifications at 25°C

| Pa | rameter | F# | Frequency (MHz) | Min. | Тур. | Max. | Unit |
|-----------|----------------|-------|-----------------|------|------|------|------|
| | Insertion Loss | DC-F1 | DC-264 | - | 1.1 | 2.0 | dB |
| Pass Band | Freq. Cut-Off | F2 | 288 | _ | 3.0 | — | dB |
| | VSWR | DC-F1 | DC-264 | _ | 1.4 | 1.8 | :1 |
| Stop Band | Rejection Loss | F3-F4 | 365-1500 | 20 | 30 | — | dB |
| Stop Band | VSWR | F3-F4 | 365-1500 | _ | 37 | — | :1 |
| | | | | | | | |

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

Mini-Circuits

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FREQUENCY (MHz)

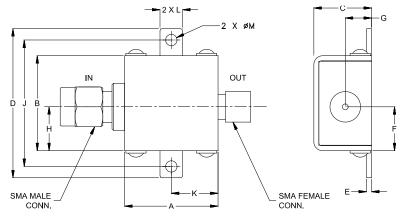
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ZX75LP-264-S+

Coaxial Connections

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

Outline Drawing



Outline Dimensions (inch)

| Α | В | С | D | Е | F | G | |
|-----------|------------------|------------------|-------------------------|----------|------|--------------|--|
| .74 | .75 | .46 | 1.18 | .04 | .349 | .21 | |
| 18.80 | 19.05 | 11.68 | 29.97 | 1.02 | 8.86 | 5.33 | |
| | | | | | | | |
| | | K | | | | 14/4 | |
| н | J | к | L | М | | Wt. | |
| Н .349 | ل 1.00 | К . 37 | L .18 | M .09 | | Wt. grams | |
| | - | | L .18 4.57 | | | | |

Notes
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