*Coaxial*

# Low Pass Filter

## ZNFLP-2100+

50Ω DC to 1800 MHz

CASE STYLE: UU1432

## The Big Deal

- High stopband rejection
- Low insertion loss in the passband, 0.6 dB typical.
- Good VSWR, 1.2:1 typical in passband

## Product Overview

ZNFLP-2100+ is a 50Ω low pass filter built into a rugged connectorized package (size: 2.25" x 2.30" x 0.63"). This model has low passband Insertion loss, high rejection with well matched input and output ports. In addition it has repeatable performance across production lots.

## Key Features

| Feature | Advantages |
|---|---|
| Low passband insertion loss | It provides minimal attenuation to the signal. |
| High rejection | This enables diplexer to attenuate harmonics, and spurious signals. |
| Good VSWR, 1.2:1 typical in pass band | The model has good matching when used with other devices. |

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## ZNFLP-2100+

50Ω DC to 1800 MHz

CASE STYLE: UU1432

| Connectors | Model | Price | Qty. |
|---|---|---|---|
| **SMA-FEMALE** | ZNFLP-2100-S+ | $64.95 ea. | (1-9) |

### Features

- High rejection
- Good VSWR,1.2:1 typical in passband
- Connectorized package

### Applications

- Harmonic rejection
- Transmitters / receivers
- Lab use

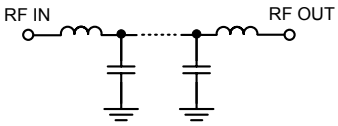
### Electrical Specifications at 25°C

| Parameter | | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| **Pass Band** | Insertion Loss | DC-F1 | DC-1800 | — | 0.6 | 1.0 | dB |
| | Freq. Cut-Off | F2 | 2100 | — | 3.5 | — | dB |
| | VSWR | DC-F1 | DC-1800 | — | 1.2 | 1.4 | :1 |
| **Stop Band** | Rejection Loss | F3-F4 | 2600-4500 | 20 | 31 | — | dB |
| | VSWR | F3-F4 | 2600-4500 | — | 17 | — | :1 |

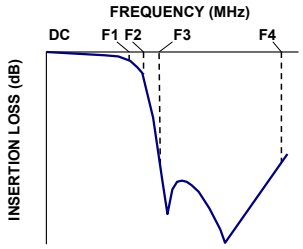
| Maximum Ratings | |
|---|---|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 5W max. at 25°C |

* Derate linearly to 5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

### Functional Schematic

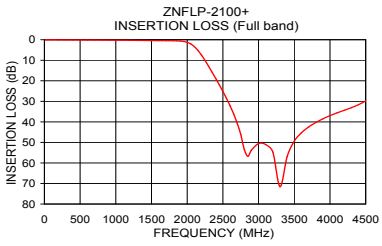


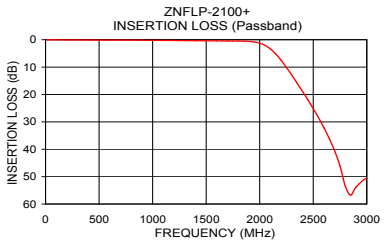

### Typical Frequency Response

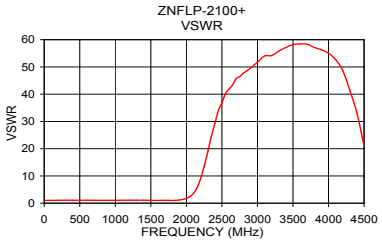


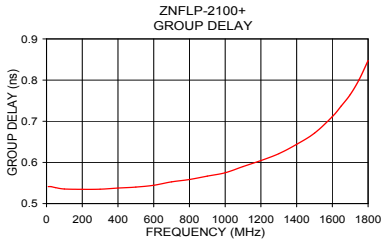

### Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | Frequency (MHz) | Group Delay (nsec) |
|---|---|---|---|---|
| 10 | 0.01 | 1.01 | 10 | 0.54 |
| 200 | 0.08 | 1.06 | 50 | 0.54 |
| 500 | 0.13 | 1.09 | 100 | 0.54 |
| 1000 | 0.22 | 1.10 | 300 | 0.53 |
| 1800 | 0.49 | 1.01 | 500 | 0.54 |
| 2000 | 1.11 | 1.74 | 600 | 0.54 |
| 2050 | 1.81 | 2.41 | 700 | 0.55 |
| 2100 | 3.02 | 3.63 | 800 | 0.56 |
| 2200 | 7.11 | 8.99 | 900 | 0.57 |
| 2350 | 15.47 | 24.47 | 1000 | 0.57 |
| 2600 | 31.43 | 41.63 | 1100 | 0.59 |
| 2850 | 60.91 | 47.53 | 1200 | 0.60 |
| 3000 | 51.47 | 48.77 | 1300 | 0.62 |
| 3300 | 58.84 | 52.06 | 1400 | 0.64 |
| 3500 | 50.95 | 54.52 | 1500 | 0.67 |
| 3700 | 42.95 | 53.82 | 1600 | 0.71 |
| 4000 | 36.82 | 54.75 | 1650 | 0.74 |
| 4200 | 34.01 | 55.57 | 1700 | 0.76 |
| 4400 | 31.19 | 58.19 | 1750 | 0.80 |
| 4500 | 29.30 | 57.63 | 1800 | 0.85 |

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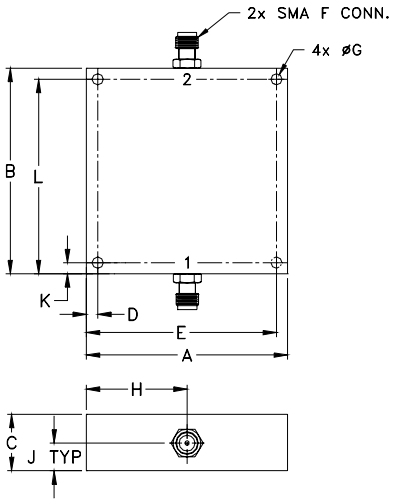
**Notes**
**A.** Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
**B.** Electrical specifications and performance data contained in this specification document are 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

## Coaxial Connections

| | |
|---|---|
| INPUT | 1 (SMA Female) |
| OUTPUT | 2 (SMA Female) |

## Outline Drawing




## Outline Dimensions ( inch / mm )

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| **2.25** | **2.3** | **0.63** | **0.125** | **2.125** | **-** |
| 57.15 | 58.42 | 16 | 3.18 | 53.98 | - |
| G | H | J | K | L | wt. |
| **0.125** | **1.13** | **0.31** | **0.125** | **2.175** | **grams** |
| 3.18 | 28.70 | 7.87 | 3.18 | 55.25 | 93 |