

DC Pass

Matching Transformer

SFMP-5075+

50/75Ω

DC to 2500 MHz

The Big Deal

- Low Insertion loss, 0.4 dB typical
- 1W Power Handling
- DC Passing up to of 350mA
- SMA-F (50Ω) to F-Type-M (75Ω)



CASE STYLE: FF1891

Product Overview

Mini-Circuits' SFMP-5075+ is a coaxial 50/75Ω matching transformer covering the DC to 2500 MHz frequency range, supporting impedance matching in a wide range of systems including CATV, broadband networks, and more. This model is ideal for 50/75Ω impedance matching in systems where minimizing overall signal loss is a priority. The transformer handles RF input power up to 1W and is capable of passing DC current up to 350mA. Measuring only 2.22 (l) x 0.67" (dia.), the transformer comes housed in a rugged, nickel-plated brass case with SMA-F (50Ω) to F-Type-M (75Ω) connectors.

Key Features

| Feature | Advantages |
|--------------------------------------|---|
| Wideband, DC to 2500 MHz | Supports a wide variety of applications including CATV and DOCSIS® 3.1 systems and equipment. |
| Low insertion loss, 0.4 dB | Enables excellent signal power transmission from input to output, minimizing overall system losses. |
| 1W power handling | Supports a range of system power requirements. |
| DC Passing up to 350mA | Supports applications where DC passing is needed through the RF line. |
| Compact size, 2.2 (l) x 0.67" (dia.) | Accommodates tight space requirements for crowded system layouts. |
| SMA-F (50Ω) to F-Type-M connectors | Supports connections between components with different connector types. |

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



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Maximum Ratings

| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| DC Current | 350mA max. |
| DC Resistance | 0.08Ω max. |

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

Features

- Low matching loss of 0.4 dB typical
- Wideband coverage, DC-2500MHz
- Connectorized package

CASE STYLE: FF1891
Connectors Model
50Ω S-F SFMP-5075+
75Ω F-M

Applications

- Impedance matching
- General Wireless Communications

+RoHS Compliant

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

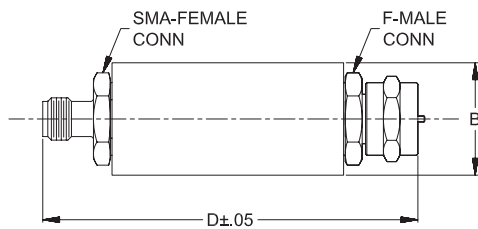
Coaxial Connections

| | |
|--------|------------|
| Input | SMA-Female |
| Output | F-Male |

Electrical Specifications at 25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-----------------|-----------------|------|------|------|------|
| Frequency Range | - | DC | - | 2500 | MHz |
| Insertion Loss | 10 | - | - | 1.0 | dB |
| | 950-2500 | - | 0.4 | 1.2 | |
| VSWR | 10 | - | - | 1.8 | :1 |
| | 950-2500 | - | - | 1.7 | |
| Power | DC-2500 | - | - | 1 | W |

Outline Drawing



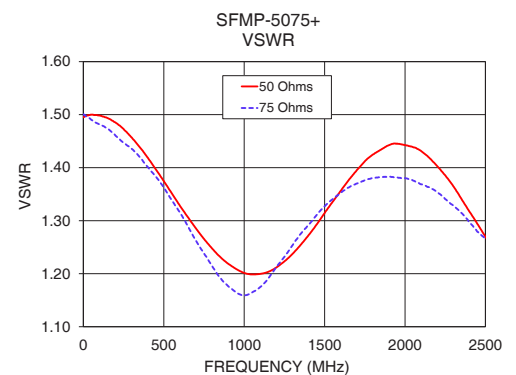
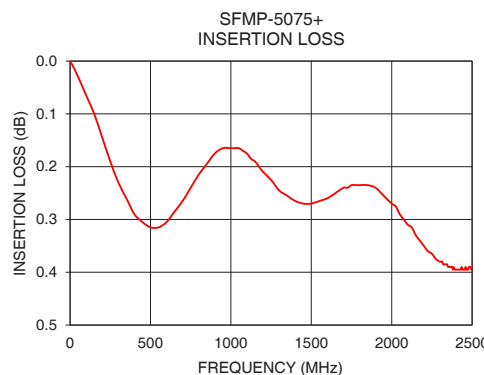
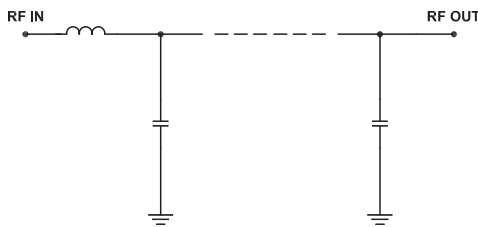
Outline Dimensions (inch/mm)

| A | B | C | D | E | Wt. |
|----|-------|----|-------|----|-------|
| -- | .67 | -- | 2.22 | -- | grams |
| -- | 17.02 | -- | 56.39 | -- | 35 |

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | VSWR | |
|-----------------|---------------------|------|------|
| | | 50 Ω | 75 Ω |
| 10 | 0.01 | 1.50 | 1.50 |
| 50 | 0.03 | 1.50 | 1.49 |
| 100 | 0.07 | 1.50 | 1.48 |
| 250 | 0.19 | 1.47 | 1.45 |
| 500 | 0.32 | 1.37 | 1.36 |
| 950 | 0.17 | 1.21 | 1.16 |
| 1000 | 0.17 | 1.20 | 1.16 |
| 1950 | 0.26 | 1.45 | 1.38 |
| 2300 | 0.38 | 1.37 | 1.33 |
| 2500 | 0.40 | 1.27 | 1.27 |

Config. D



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