# **Matching Transformer**

SFMP-5075+

 $50/75\Omega$ 

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 (50 $\Omega$ ) to F-Type-M (75 $\Omega$ )



CASE STYLE: FF1891

### **Product Overview**

Mini-Circuits' SFMP-5075+ is a coaxial  $50/75\Omega$  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  $50/75\Omega$  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 (I) x 0.67" (dia.), the transformer comes housed in a rugged, nickel-plated brass case with SMA-F (50 $\Omega$ ) to F-Type-M (75 $\Omega$ ) 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 (I) x 0.67" (dia.)	Accommodates tight space requirements for crowded system layouts.
SMA-F (50 $\Omega$ ) to F-Type-M connectors	Supports connections between components with different connector types.

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

# DC Pass

# **Matching Transformer**

# SFMP-5075+

### $50/75\Omega$

### DC to 2500 MHz

**Maximum Ratings** 

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

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

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

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

+RoHS Compliant

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

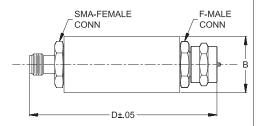
## **Applications**

- Impedance matching
- General Wireless Communications

### **Coaxial Connections**

Input	SMA-Female
Output	F-Male

### **Outline Drawing**



### Outline Dimensions (inch )

Α	В	С	D	Ε	Wt.
	.67		2.22		grams
	17.02		56 30		35

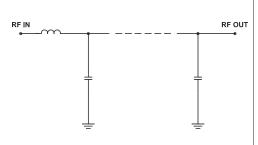
### Electrical Specifications at 25°C

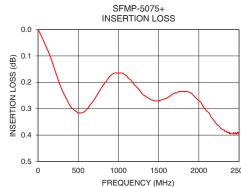
Parameter	Frequency (MHz)	Min.	Тур.	Max.	Unit
Frequency Range	-	DC	-	2500	MHz
Insertion Loss	10	-	-	1.0	dB
insertion Loss	950-2500	-	0.4	1.2	
VSWR	10	-	-	1.8	.4
VSWR	950-2500	-	-	1.7	:1
Power	DC-2500	-	-	1	W

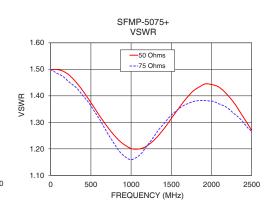
### **Typical Performance Data**

· ·			
Insertion Loss (dB)	VSWR		
	<b>50</b> Ω	<b>75</b> Ω	
0.01	1.50	1.50	
0.03	1.50	1.49	
0.07	1.50	1.48	
0.19	1.47	1.45	
0.32	1.37	1.36	
0.17	1.21	1.16	
0.17	1.20	1.16	
0.26	1.45	1.38	
0.38	1.37	1.33	
0.40	1.27	1.27	
	0.01 0.03 0.07 0.19 0.32 0.17 0.17 0.26 0.38	Insertion Loss (dB)  50 Ω  0.01 1.50 0.03 1.50 0.07 1.50 0.19 1.47 0.32 1.37 0.17 1.21 0.17 1.20 0.26 1.45 0.38 1.37	

### Config. D







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