

Coaxial

# Adapter *SMA-Female to SMA-Male*

**SFR-SM50+**

50Ω DC to 18 GHz

## The Big Deal

- Ultra-wideband, DC-18 GHz
- Low insertion loss, 0.14 dB typ. up to 18 GHz
- Excellent VSWR, 1.12:1 typ. up to 18 GHz



CASE STYLE: DJ2442-7

## Product Overview

Mini-Circuits' SFR-SM50+ is a right-angle SMA-Female to SMA-Male adapter supporting a wide range of applications from DC to 18 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The SFR-SM50+ features Tri-metal alloy body and Gold-plated berillium copper construction center contact.

## Key Features

Feature	Advantages
Wideband, DC to 18 GHz	Wide frequency range provides application flexibility and makes this model ideal for broad-band and multi-band use.
Excellent VSWR • 1.12:1 typ. up to 18 GHz	Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.
Low insertion loss • 0.14 dB typ. up to 18 GHz	Provides excellent signal power transmission from input to output.
Tri-metal alloy and Gold-plated berillium copper construction center contact	Stands up to wear and tear in demanding environments and provides excellent reliability.
Very wide operating temperature range, -55 to +100°C	Withstands extreme operating conditions and is suitable for use near high power components where heat rise is common.

### 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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50Ω DC to 18 GHz

## SFR-SM50+



*Generic photo used for illustration purposes only*

CASE STYLE: DJ2442-7

Connectors	Model
SMA-Fem to SMA-Male	SFR-SM50+

**+RoHS Compliant**

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

### Maximum Ratings

Operating Temperature  $-55^{\circ}\text{C}$  to  $100^{\circ}\text{C}$

Storage Temperature  $-55^{\circ}\text{C}$  to  $100^{\circ}\text{C}$

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

### Features

- low insertion loss, 0.14 dB typ. up to 18 GHz
- excellent VSWR, 1.12:1 typ. up to 18 GHz
- low cost adapters, available from stock
- Tri-metal alloy and gold-plated berillium copper center connector

### Applications

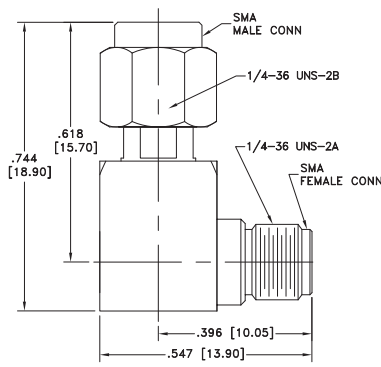
- interconnection of RF cable and equipment

### Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Insertion Loss	DC - 18	—	0.14	—	dB
VSWR	DC - 8	—	1.01	1.25	:1
	8 - 12	—	1.07	1.25	
	12 - 18	—	1.09	1.25	

### Outline Dimensions

inches [mm]

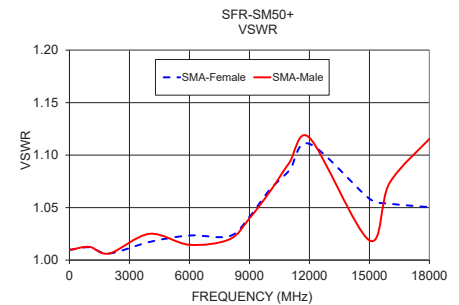
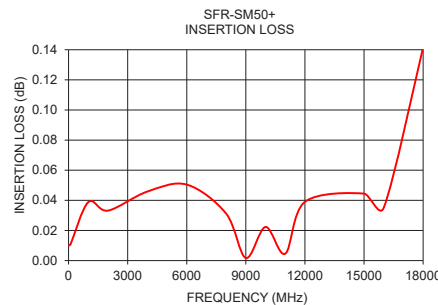


Weight: 6.5 grams

Dimensions are in inches (mm). Tolerances: 2 Pl.±.03; 3 Pl. ±.015

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		SMA-Female	SMA-Male
10	0.01	1.01	1.01
100	0.01	1.01	1.01
1000	0.04	1.01	1.01
2000	0.03	1.01	1.01
4000	0.05	1.02	1.03
6000	0.05	1.02	1.01
8000	0.03	1.02	1.02
9000	0.00	1.04	1.04
10000	0.02	1.07	1.06
11000	0.00	1.09	1.09
12000	0.04	1.11	1.12
15000	0.04	1.06	1.02
16000	0.04	1.05	1.07
18000	0.14	1.05	1.12



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