



### THE BIG DEAL

- Inter Series Adapter: 'K' Female (2.92mm) to 'SMA' Female
- Low Insertion Loss, 0.05 dB Typ.
- Excellent VSWR, 1.06:1 Typ.
- Flat Response, Less Than 0.1 dB Up To 18 GHz
- Wideband, DC to 18 GHz

### APPLICATIONS

- Test & Measurement Equipment
- R&D Lab, Production, and OTA Test Systems
- Communications, Radar, EW, and ECM Defense Systems
- 5G MIMO and Back Haul Radio Systems



Generic photo used for illustration purposes only

Model No.	KF-SF50+
Case Style	DJ1860-1
Connectors	2.92 mm Female to SMA Female

#### +RoHS Compliant

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

### PRODUCT OVERVIEW

Mini-Circuits' KF-SF50+ is a coaxial 2.92mm Female to SMA Female adapter. This is straight variant of Mini-Circuits model SFR-KF50+ right angle adapter. Both adapters support a wide range of applications from DC to 18 GHz. The KF-SF50+ provides excellent VSWR, low insertion loss, and flat response versus frequency. The construction features brass alloy, tri-metal plated and measures only 0.61" in length.

### KEY FEATURES

Features	Advantages
Inter series adapter	'K' (2.92mm) to 'SMA' enables test of multiple different interfaces over common frequency coverage
Wideband, DC to 18 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use
Excellent VSWR, 1.06:1 Typ.	Provides good matching for 50 $\Omega$ systems and minimizes signal reflections across wide frequency range.
Low insertion loss, 0.05 dB Typ.	Provides excellent signal power transmission from input to output.
Brass alloy, tri-metal plated body and Gold-plated beryllium copper center contact	Stands up to wear and tear in demanding environments and provides excellent reliability.
Very wide operating temperature range, -55 to +120 °C	Withstands extreme operating conditions and is suitable for use near high power components where heat rise is common.



Mini-Circuits

COAXIAL

# Adapter

KF-SF50+

50Ω DC to 18 GHz 2.92 mm Female to SMA Female Straight

## ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	DC	-	18	GHz
Insertion Loss	0.01-6	-	0.02	-	dB
	6-12	-	0.06	0.15	
	12-18	-	0.08	-	
VSWR <sup>1</sup>	0.01-6	-	1.02	-	:1
	6-12	-	1.09	1.20	
	12-18	-	1.06	-	

1. VSWR is the average VSWR of both connectors

## ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to 120°C
Storage Temperature	-55°C to 120°C

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





## COAXIAL CONNECTIONS

Connector 1	2.92mm-Female
Connector 2	SMA Female

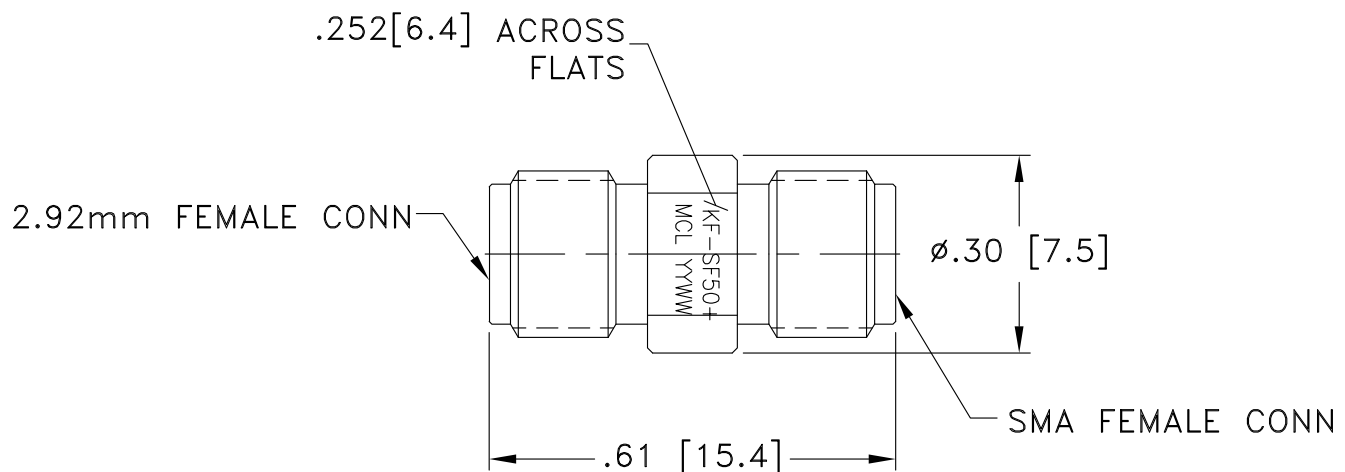
## CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	2.92mm-F	SMA-F
Orientation	Straight	Straight
Mounting Type	Standard	Standard
Impedance	50 $\Omega$	50 $\Omega$

## MECHANICAL INFORMATION

Body	Brass Alloy, Tri-Metal Plated
Pin	Gold-Plated Beryllium Copper
Insulator	Teflon (PTFE)

## OUTLINE DRAWING



Weight: 2.33 grams Max.

Dimensions are in inches [mm]. Tolerances: 2 Pl.  $\pm$ .03; 3 Pl.  $\pm$ .015



COAXIAL

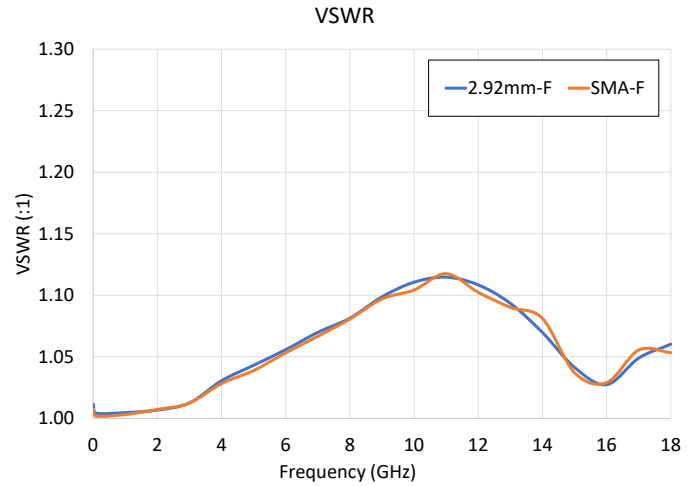
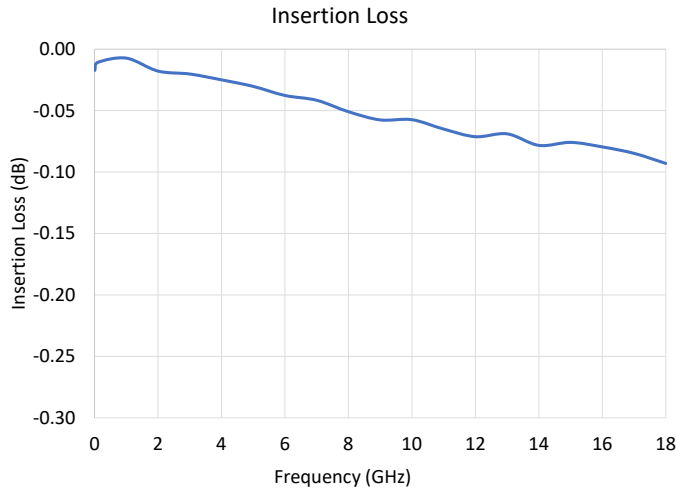
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## TYPICAL PERFORMANCE CURVES



### NOTES

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)

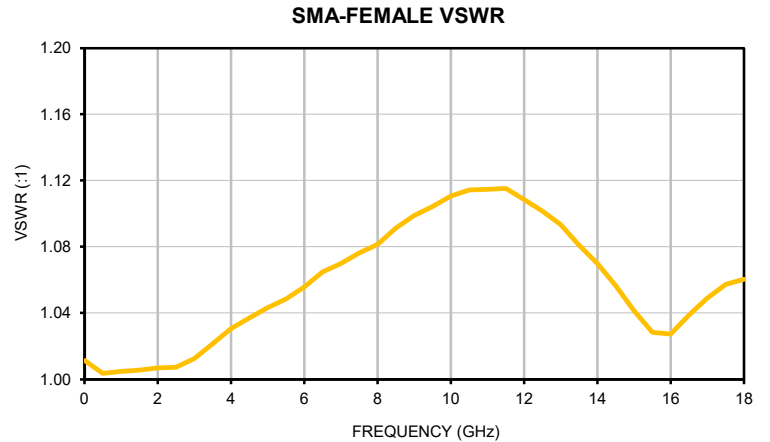
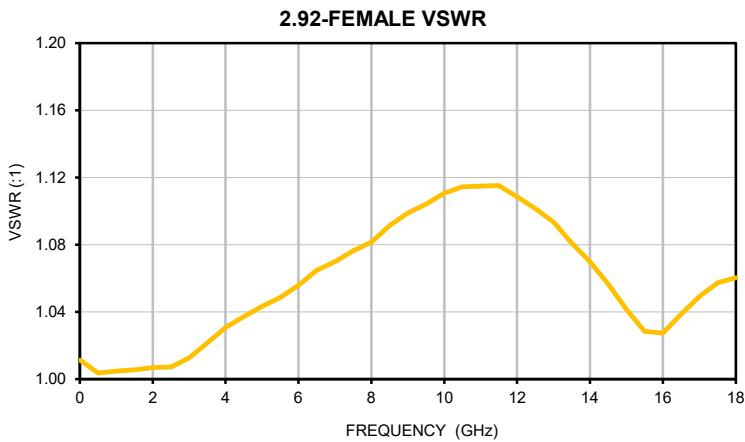


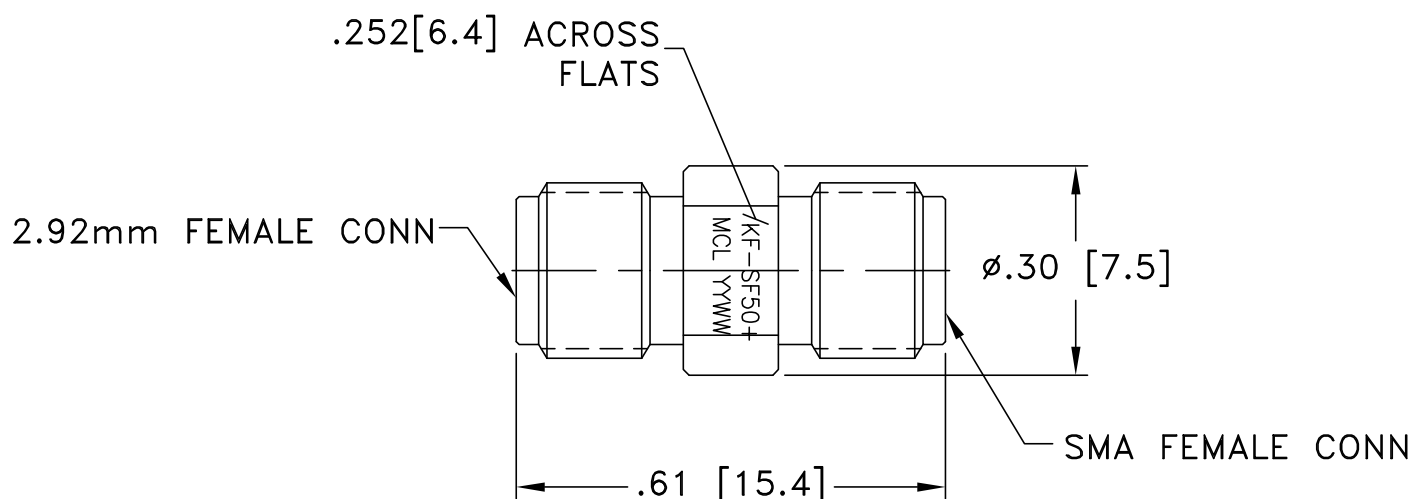
**Adaptor 2.92mm-Female to SMA-Female****KF-SF50+***Typical Performance Data*

FREQ.	INSERTION LOSS	2.92mm-FEMALE VSWR	SMA-FEMALE VSWR
(GHz)	(dB)	(:1)	(:1)
0.01	0.02	1.01	1.01
0.5	0.00	1.01	1.01
1.0	0.01	1.01	1.01
1.5	0.02	1.02	1.02
2.0	0.02	1.02	1.02
2.5	0.02	1.02	1.02
3.0	0.02	1.01	1.01
3.5	0.02	1.02	1.02
4.0	0.02	1.03	1.03
4.5	0.03	1.04	1.04
5.0	0.03	1.04	1.04
5.5	0.03	1.05	1.05
6.0	0.04	1.06	1.06
6.5	0.04	1.06	1.06
7.0	0.04	1.07	1.07
7.5	0.05	1.08	1.08
8.0	0.05	1.08	1.08
8.5	0.05	1.09	1.09
9.0	0.06	1.10	1.10
9.5	0.06	1.10	1.10
10.0	0.06	1.11	1.11
10.5	0.06	1.11	1.11
11.0	0.07	1.11	1.11
11.5	0.07	1.12	1.12
12.0	0.07	1.11	1.11
12.5	0.07	1.10	1.10
13.0	0.07	1.09	1.09
13.5	0.07	1.08	1.08
14.0	0.08	1.07	1.07
14.5	0.08	1.06	1.06
15.0	0.08	1.04	1.04
15.5	0.08	1.03	1.03
16.0	0.08	1.03	1.03
16.5	0.08	1.04	1.04
17.0	0.08	1.05	1.05
17.5	0.09	1.06	1.06
18.0	0.09	1.06	1.06



Typical Performance Curves





Weight: 2.53 grams MAX

Dimensions are in inches (mm). Tolerances: 2 Pl.±.030; 3 Pl. ±.015

Notes:

Case material: Brass.  
Case Finish: Tri metal alloy plating.



ISO 9001 ISO 14001 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS





All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° C to 120° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° C to 120° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° C to 120° C, 30 min dwell. 5 cycles	MIL-STD-202, Method 107
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12
Drop Test	1 meter height, 5 times	