



COAXIAL

Adapter

KF-SF50+

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

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



Generic photo used for illustration purposes only

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

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 50Ω 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.





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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 ¹	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.



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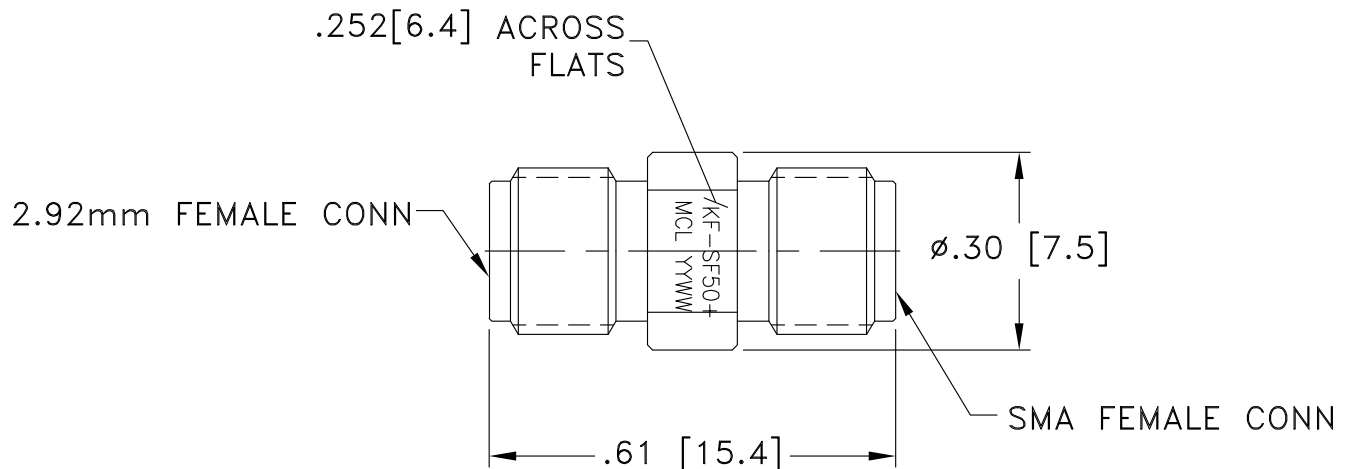
COAXIAL CONNECTIONS

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 Ω	50 Ω
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. ±.03; 3 Pl. ± .015



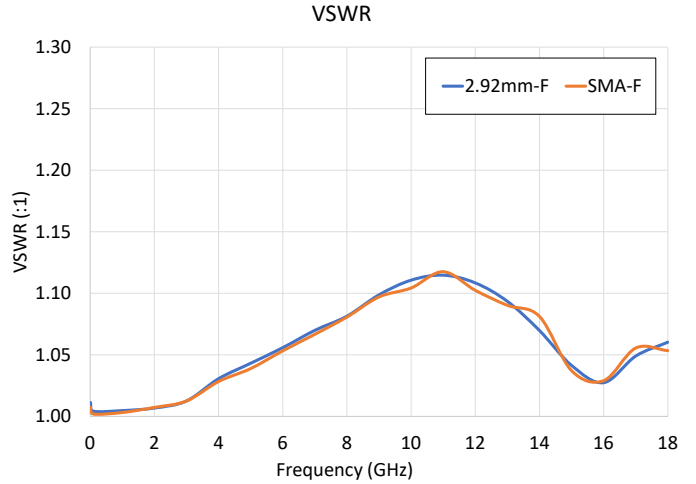
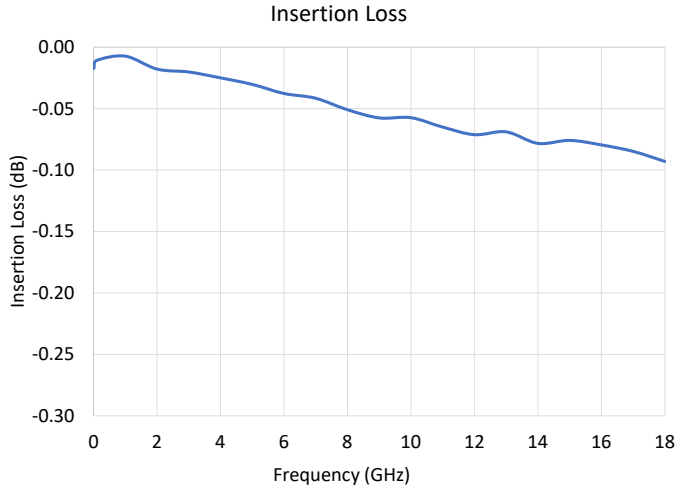
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TYPICAL PERFORMANCE CURVES



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/terms/viewterm.html



Adaptor 2.92mm-Female to SMA-Female

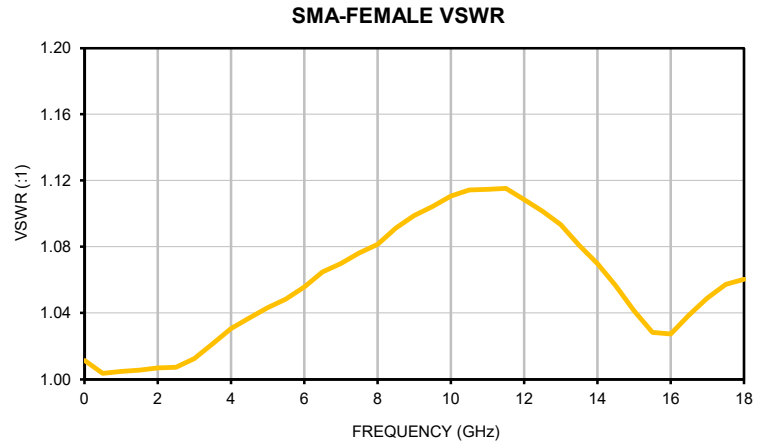
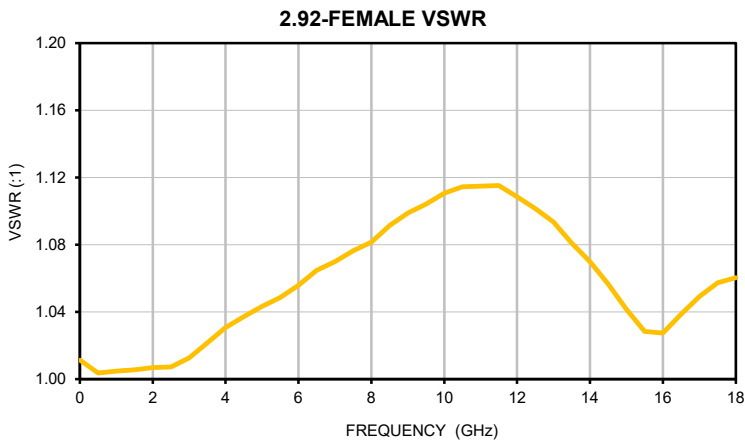
KF-SF50+

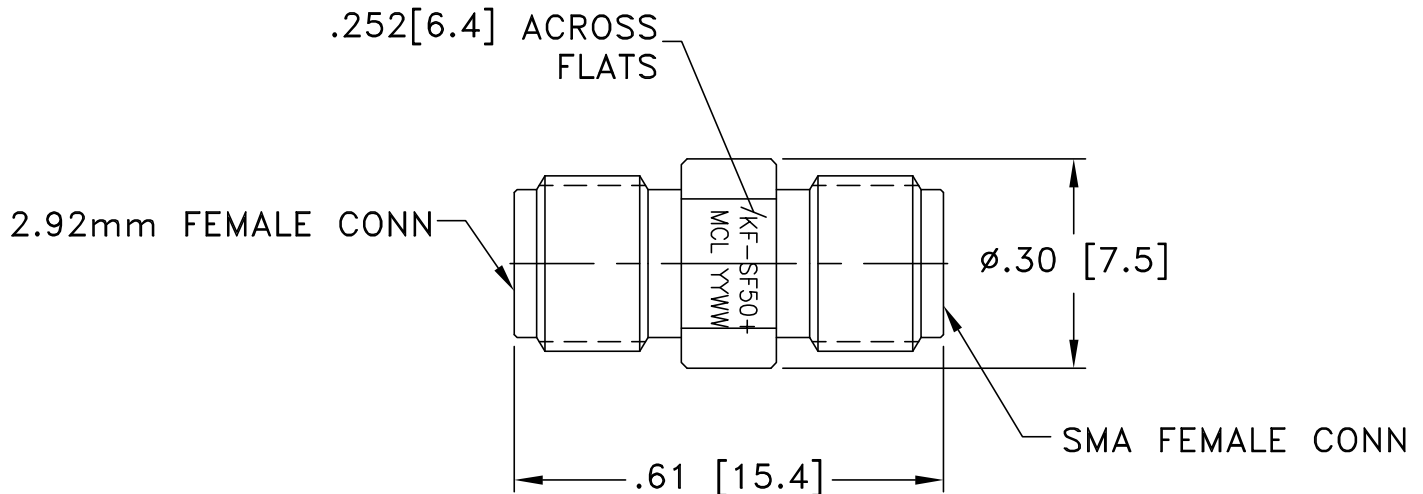
Typical Performance Data

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.

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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	