

COAXIAL

# Adapter

## 10F-10F+

50Ω DC to 110 GHz 1.0 mm-Female to 1.0 mm-Female

### KEY FEATURES

- Ultra-wideband, DC to 110 GHz
- Low Insertion Loss, 0.27 dB Typ.
- Straight Body
- Excellent VSWR, 1.07:1 Typ.



Generic photo used for illustration purposes only

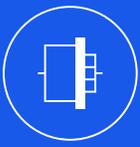
### PRODUCT OVERVIEW

Mini-Circuits' 10F-10F+ is a coaxial 1.0mm Female to 1.0mm Female adapter supporting a wide range of applications from DC to 110 GHz. This model provides excellent VSWR and low insertion loss versus frequency. The 10F-10F+ features passivated stainless-steel construction and measures only 0.5" in length.

### ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		110	GHz
Insertion Loss	0.01-30	—	0.12	0.68	dB
	30-60	—	0.22	0.68	
	60-90	—	0.32	0.68	
	90-110	—	0.41	0.68	
VSWR	0.01-30	—	1.03	1.25	:1
	30-60	—	1.05	1.25	
	60-90	—	1.07	1.25	
	90-110	—	1.12	1.40	

Absolute Maximum Ratings are on page 3.



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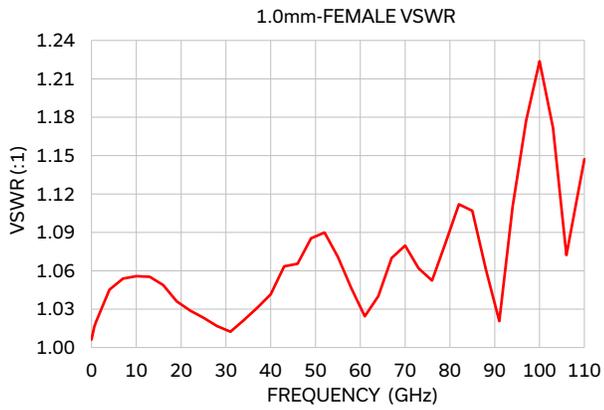
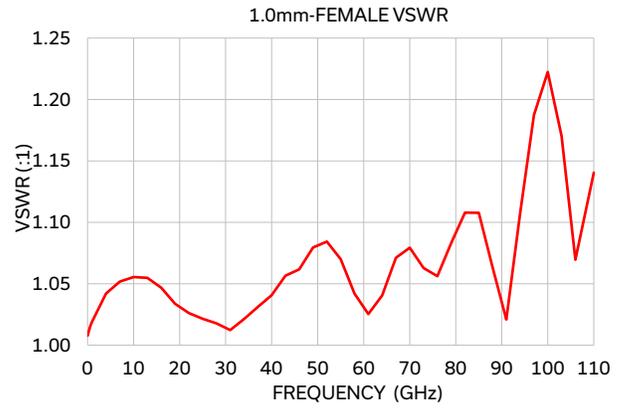
# Adapter

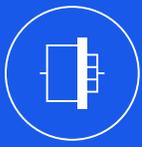
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## TYPICAL PERFORMANCE GRAPHS





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# Adapter

# 10F-10F+

50Ω DC to 110 GHz 1.0 mm-Female to 1.0 mm-Female

### ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

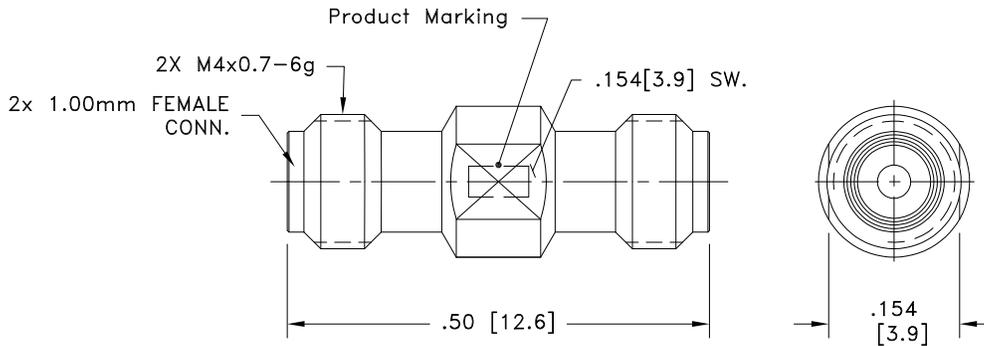
Parameter	Ratings
Operating Case Temperature	+10 °C to +40 °C
Storage Temperature	+10 °C to +40 °C

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

### CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	1.0mm Female	1.0mm Female
Orientation	Straight	Straight

### CASE STYLE DRAWING



Weight: 0.8 grams

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

### PRODUCT MARKING\*: 10F-10F+

\*Marking may contain other features or characters for internal lot control.

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

<b>Performance</b>	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
<b>Case Style</b>	DJ3474
<b>RoHs Status</b>	Compliant
<b>Environmental Ratings</b>	ENV127T1

#### 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](http://www.minicircuits.com/terms/viewterm.html)



# Adaptor 1.0mm-Female to 1.0mm-Female

# 10F-10F+

## Typical Performance Data

FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR	1.0mm-FEMALE VSWR
(GHz)	(dB)	(:1)	(:1)
0.01	0.00	1.01	1.01
0.6	0.05	1.02	1.02
1.0	0.06	1.02	1.02
4.0	0.10	1.04	1.05
7.0	0.13	1.05	1.05
10.0	0.13	1.06	1.06
13.0	0.13	1.05	1.06
16.0	0.14	1.05	1.05
19.0	0.14	1.03	1.04
22.0	0.14	1.03	1.03
25.0	0.16	1.02	1.02
28.0	0.16	1.02	1.02
31.0	0.17	1.01	1.01
34.0	0.18	1.02	1.02
37.0	0.19	1.03	1.03
40.0	0.20	1.04	1.04
43.0	0.21	1.06	1.06
46.0	0.22	1.06	1.07
49.0	0.24	1.08	1.09
52.0	0.25	1.08	1.09
55.0	0.25	1.07	1.07
58.0	0.26	1.04	1.05
61.0	0.28	1.03	1.02
64.0	0.29	1.04	1.04
67.0	0.30	1.07	1.07
70.0	0.32	1.08	1.08
73.0	0.32	1.06	1.06
76.0	0.33	1.06	1.05
79.0	0.33	1.08	1.08
82.0	0.35	1.11	1.11
85.0	0.35	1.11	1.11
88.0	0.35	1.06	1.06
91.0	0.36	1.02	1.02
94.0	0.36	1.11	1.11
97.0	0.41	1.19	1.18
100.0	0.43	1.22	1.22
103.0	0.44	1.17	1.17
106.0	0.41	1.07	1.07
110.0	0.43	1.14	1.15



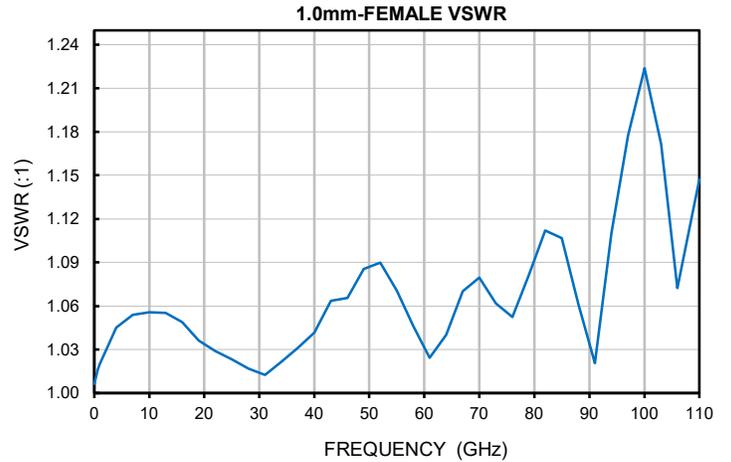
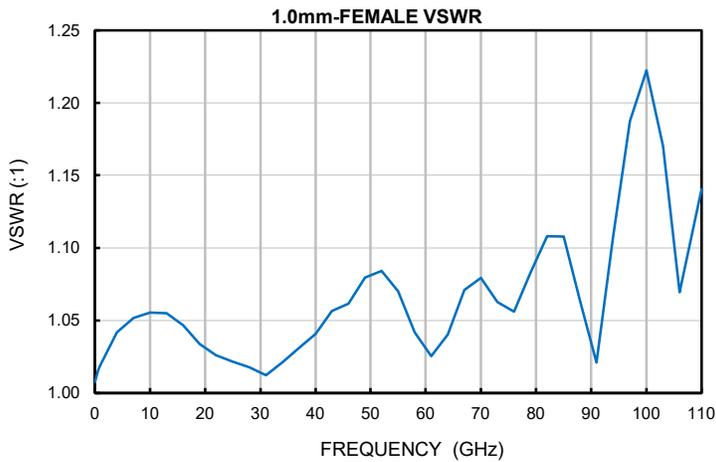
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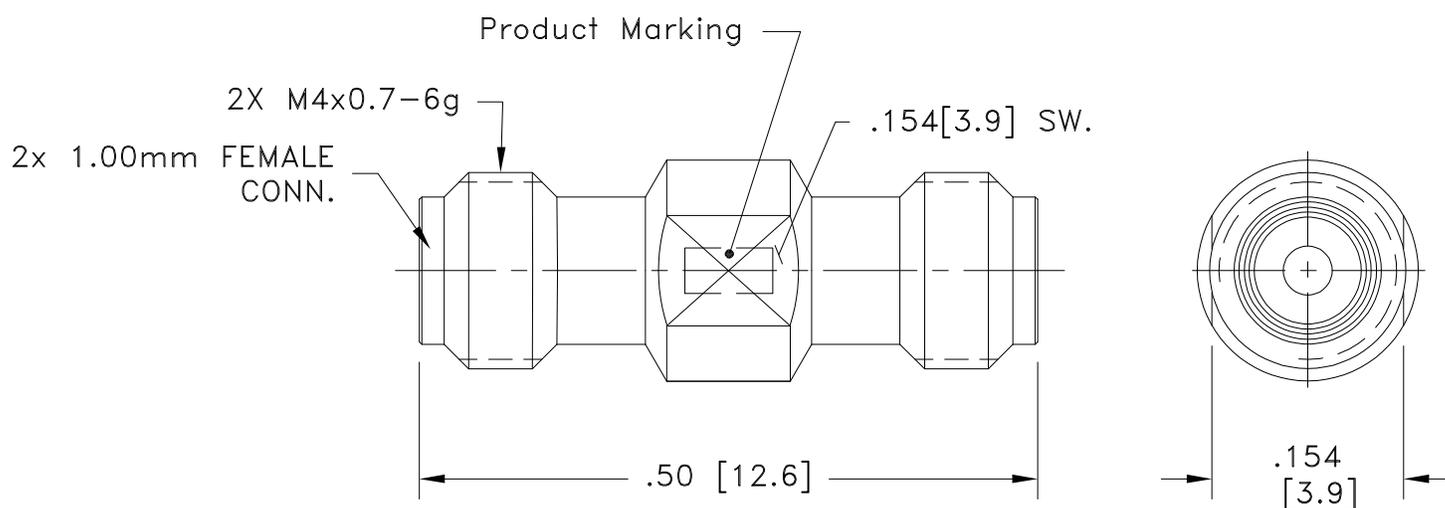


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IF/RF MICROWAVE COMPONENTS

## Typical Performance Curves





Weight: 0.8 grams

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

Notes:

1. Case material: Stainless Steel
2. Case Finish: Passivation



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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.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
Operating Temperature	+10° to +40° C	Individual Model Data Sheet
Storage Temperature	+10° to +40° C	Individual Model Data Sheet
Thermal shock	+10° C to +40° C, 5 cycles, 15 min dwell time	MIL-STD-202, Method 107
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12