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	

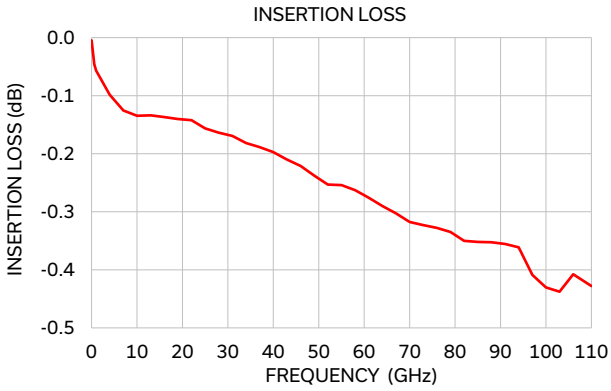
Absolute Maximum Ratings are on page 3.

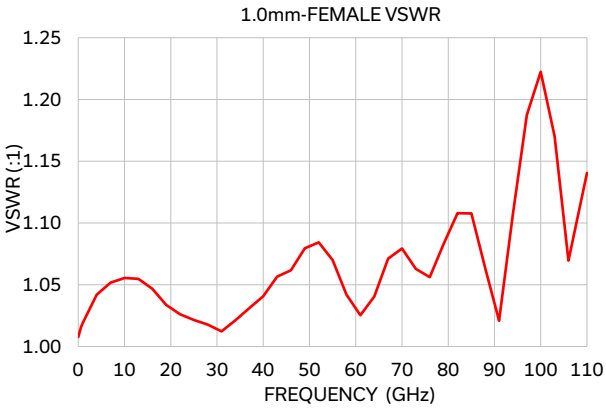
Adapter

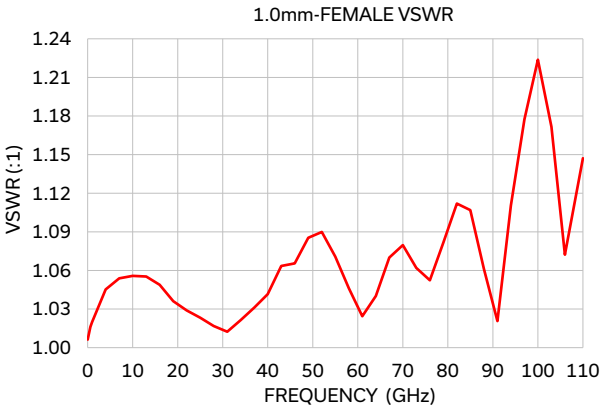
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50Ω DC to 110 GHz 1.0 mm-Female to 1.0 mm-Female

TYPICAL PERFORMANCE GRAPHS







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ABSOLUTE MAXIMUM RATINGS[1]

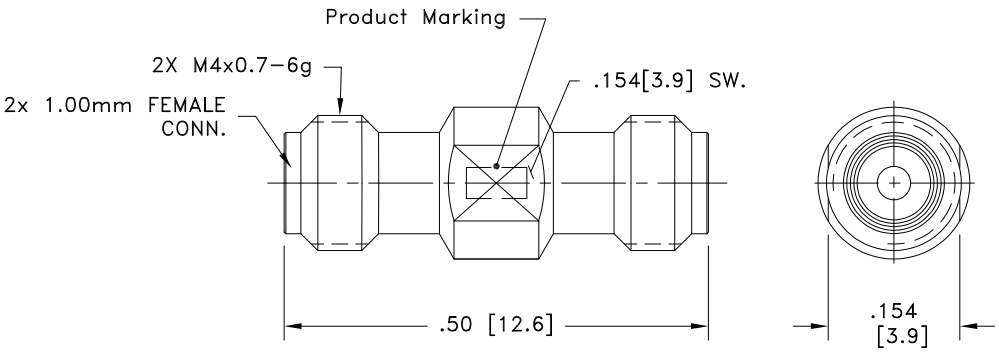
Parameter	Ratings
Operating Case Temperature	+10 °C to +40 °C
Storage Temperature	+10 °C to +40 °C

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

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

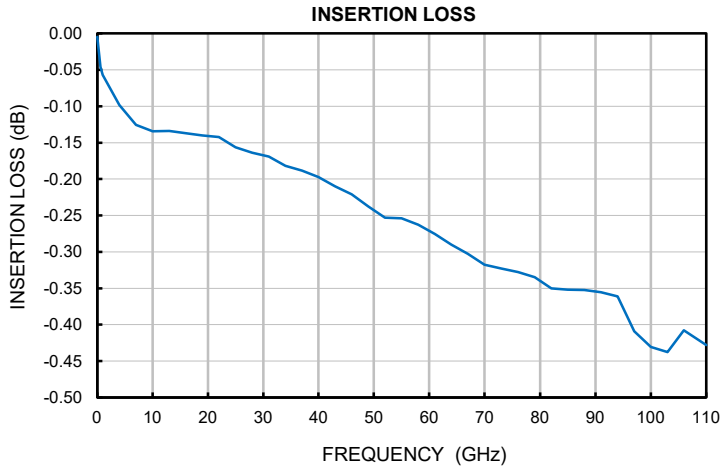
Adaptor 1.0mm-Female to 1.0mm-Female 10F-10F+

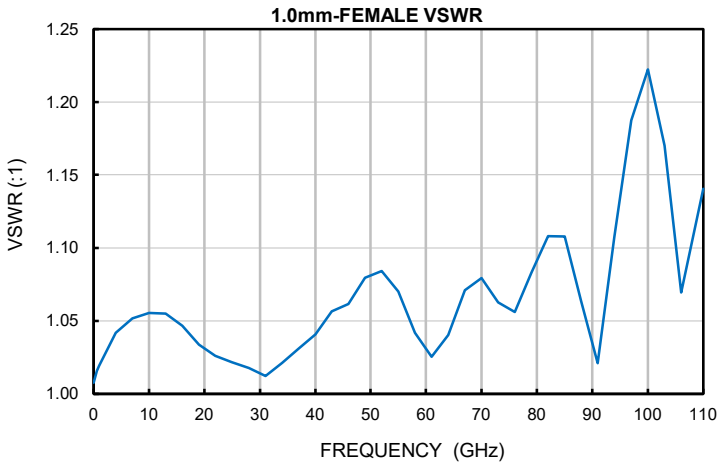
Typical Performance Data

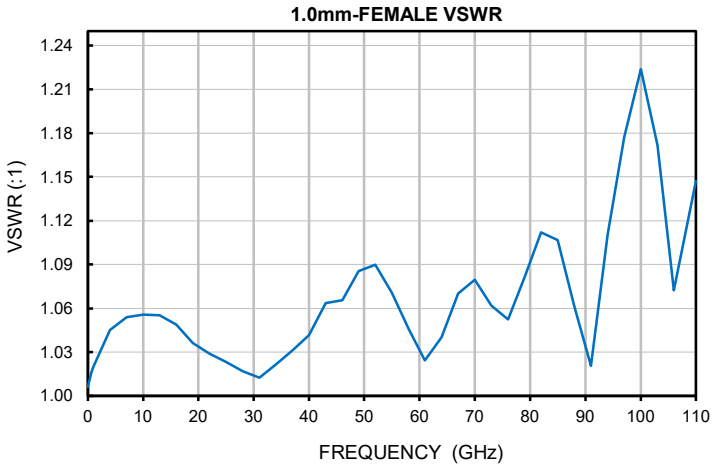
FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR	1.0mm-FEMALE VSWR
(GHz)	(dB)	(:1)	(:1)
0.01	0.00	1.01	1.01
0.6	0.05	1.02	1.02
1.0	0.06	1.02	1.02
4.0	0.10	1.04	1.05
7.0	0.13	1.05	1.05
10.0	0.13	1.06	1.06
13.0	0.13	1.05	1.06
16.0	0.14	1.05	1.05
19.0	0.14	1.03	1.04
22.0	0.14	1.03	1.03
25.0	0.16	1.02	1.02
28.0	0.16	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

Adaptor 1.0mm-Female to 1.0mm-Female 10F-10F+

Typical Performance Curves

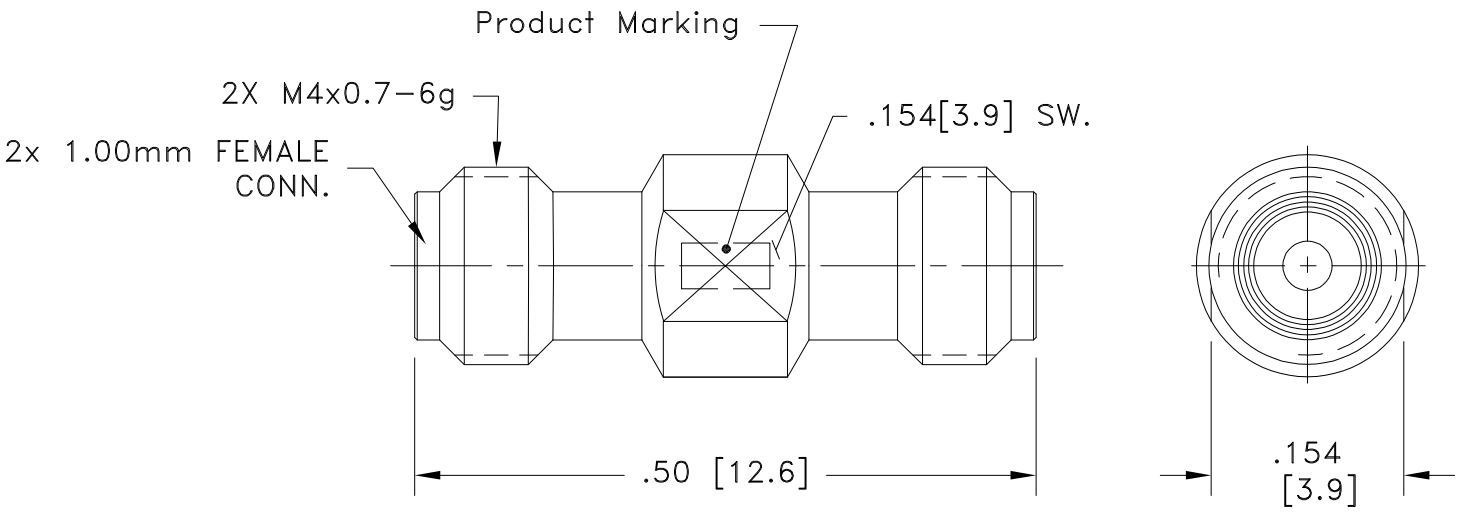






Case Style DJ

Outline Dimensions DJ3474



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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Environmental Specifications ENV127T1

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	+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

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