



## KEY FEATURES

- Wideband, DC to 90 GHz
- Low Insertion Loss, 0.26 dB Typ.
- Excellent VSWR, 1.06:1 Typ.
- Straight Body



Generic photo used for illustration purposes only

## PRODUCT OVERVIEW

Mini-Circuits' 10F-135M+ is a coaxial 1.0 mm Female to 1.35 mm Male adapter supporting a wide range of applications from DC to 90 GHz. This model provides excellent VSWR and low insertion loss versus frequency. The 10F-135M+ features passivated stainless-steel construction and measures only 0.62" in length.

## ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		90	GHz
Insertion Loss	0.01-30	-	0.12	0.66	dB
	30-60	-	0.25	0.66	
	60-90	-	0.40	0.66	
VSWR	0.01-30	-	1.04	1.32	:1
	30-60	-	1.06	1.32	
	60-90	-	1.09	1.32	

ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

Operating Case Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C

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



COAXIAL

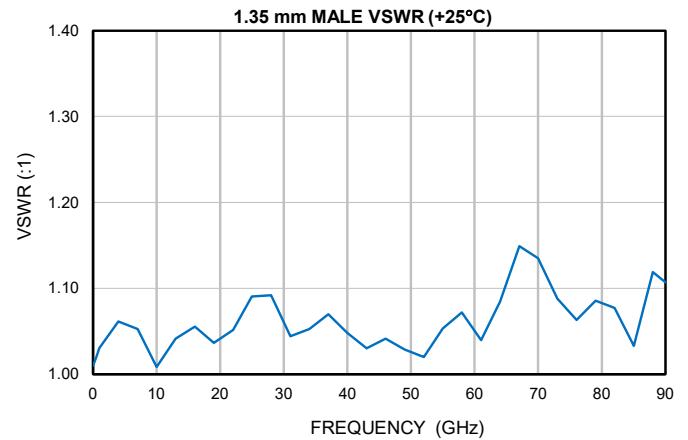
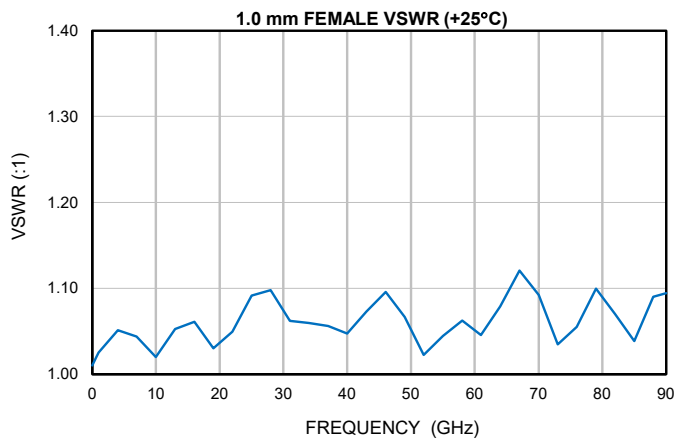
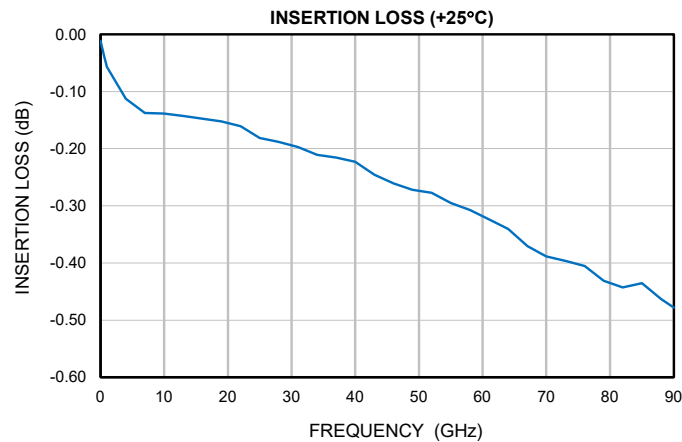
# Adapter

10F-135M+

Mini-Circuits

50 $\Omega$  DC to 90 GHz 1.0 mm-Female to 1.35 mm-Male

## TYPICAL PERFORMANCE GRAPHS





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# Adapter

**10F-135M+**

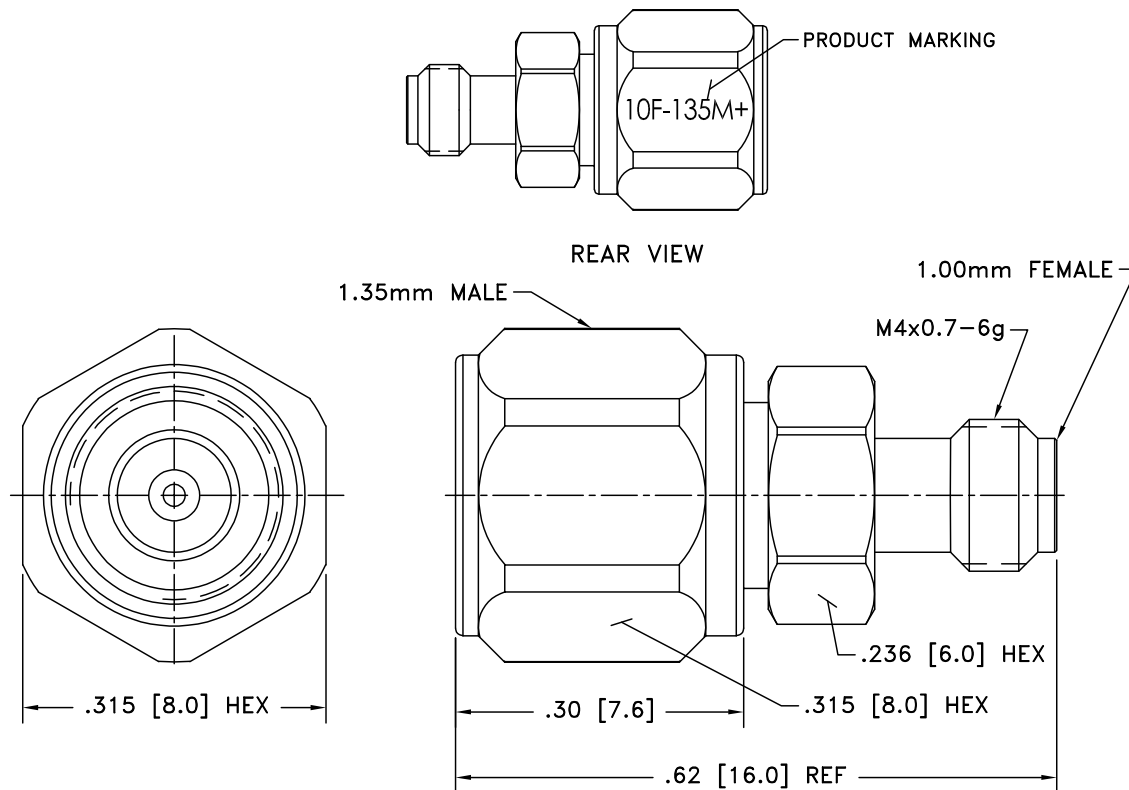
Mini-Circuits

50Ω DC to 90 GHz 1.0 mm-Female to 1.35 mm-Male

## CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	1.0 mm Female	1.35 mm Male
Orientation	Straight	Straight

## CASE STYLE DRAWING



Weight: 2.9 grams

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

**PRODUCT MARKING\*:** 10F-135M+

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





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	DJ3602-4
RoHS Status	Compliant
Environmental Ratings	ENV89

#### NOTES

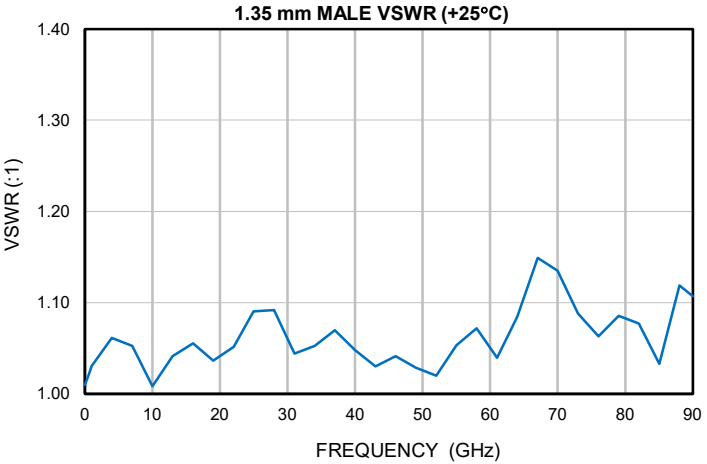
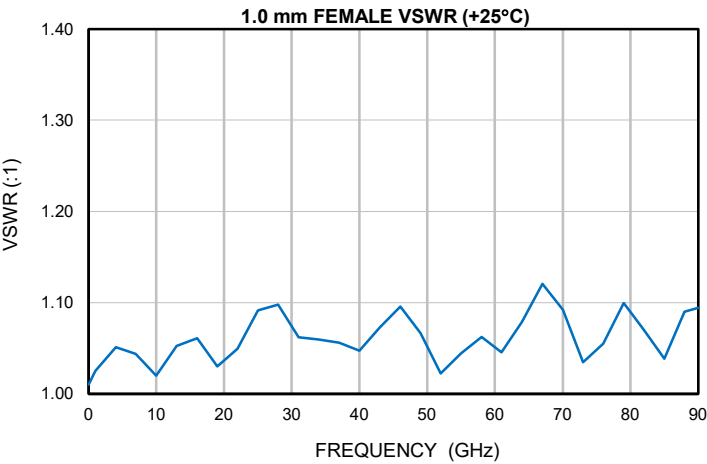
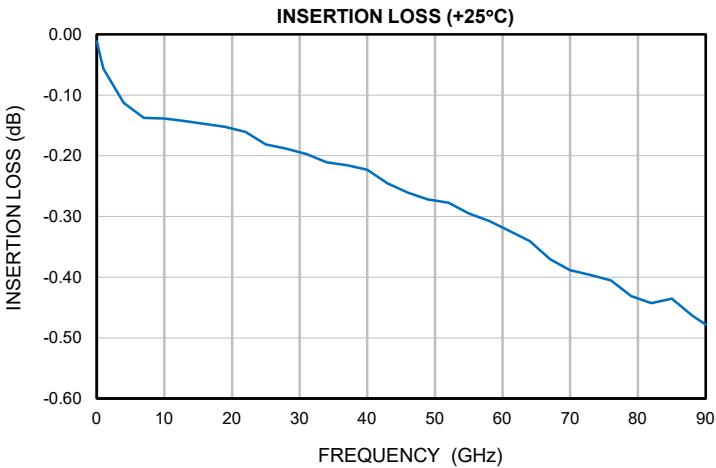
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- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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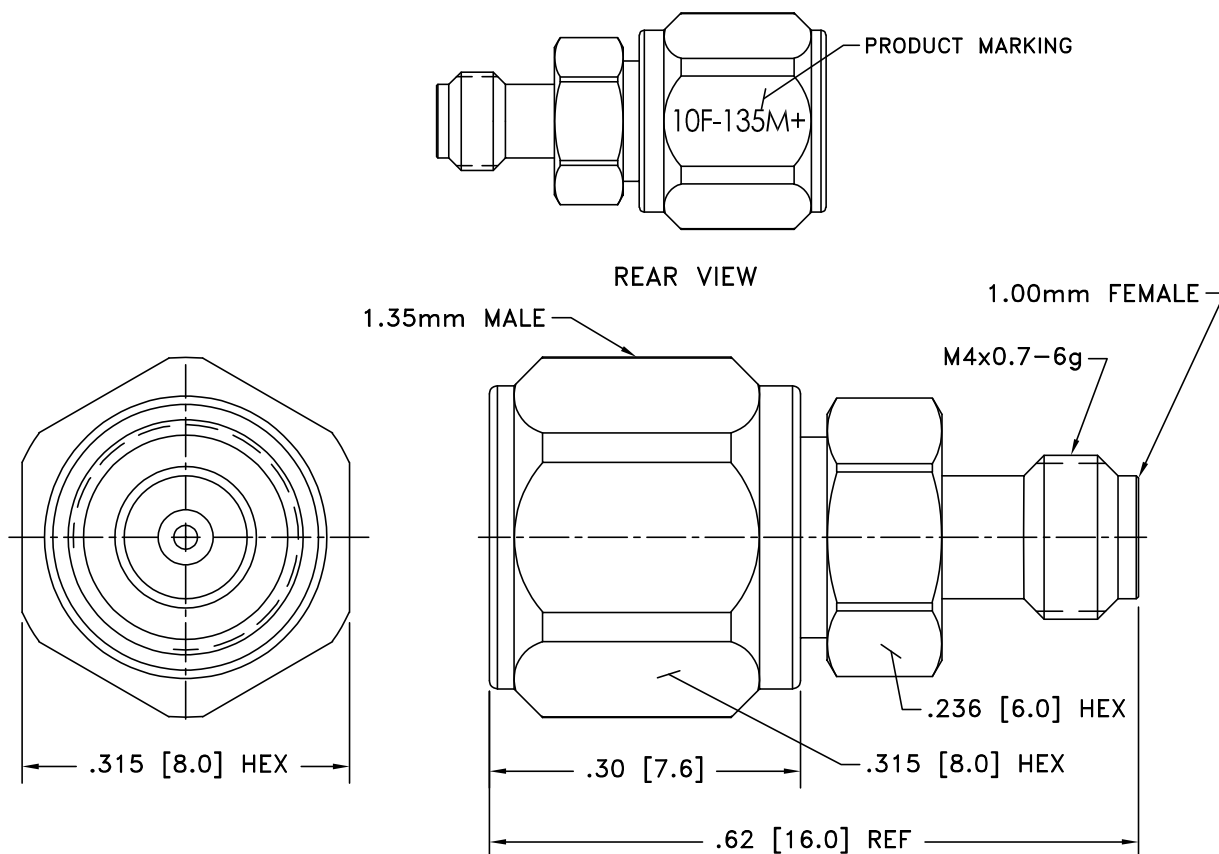


**Adaptor 1.0mm-Female to 1.35mm-Male****10F-135M+***Typical Performance Data (+25°C)*

FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR	1.35mm-MALE VSWR
(GHz)	(dB)	(:1)	(:1)
0.01	0.01	1.01	1.01
0.6	0.04	1.02	1.02
1.0	0.06	1.03	1.03
4.0	0.11	1.05	1.06
7.0	0.14	1.04	1.05
10.0	0.14	1.02	1.01
13.0	0.14	1.05	1.04
16.0	0.15	1.06	1.06
19.0	0.15	1.03	1.04
22.0	0.16	1.05	1.05
25.0	0.18	1.09	1.09
28.0	0.19	1.10	1.09
31.0	0.20	1.06	1.04
34.0	0.21	1.06	1.05
37.0	0.22	1.06	1.07
40.0	0.22	1.05	1.05
43.0	0.25	1.07	1.03
46.0	0.26	1.10	1.04
49.0	0.27	1.07	1.03
52.0	0.28	1.02	1.02
55.0	0.30	1.04	1.05
58.0	0.31	1.06	1.07
61.0	0.32	1.05	1.04
64.0	0.34	1.08	1.08
67.0	0.37	1.12	1.15
70.0	0.39	1.09	1.13
73.0	0.40	1.03	1.09
76.0	0.41	1.05	1.06
79.0	0.43	1.10	1.09
82.0	0.44	1.07	1.08
85.0	0.44	1.04	1.03
88.0	0.46	1.09	1.12
90.0	0.48	1.09	1.11

Typical Performance Curves





Weight: 2.9 grams

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

### Notes:

1. Case material: Stainless Steel.
2. Finish: Passivation.
3. Primary dimensions are in inches[millimeters]. Inch equivalents are calculated and subject to roundoff errors.



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° to 100° C or -55° to 85° C or -45° to 100° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition B except over - 55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12
Drop Test	1 meter height, 5 times	