

**KEY FEATURES**

- Wideband, DC to 90 GHz
- Low Insertion Loss, 0.27 dB Typ.
- Excellent VSWR, 1.08:1 Typ.
- Straight Body



Generic photo used for illustration purposes only

PRODUCT OVERVIEW

Mini-Circuits' 10F-135F+ is a coaxial 1.0 mm Female to 1.35 mm Female 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-135F+ features passivated stainless-steel construction and measures only 0.66" in length.

ELECTRICAL SPECIFICATIONS AT +25°C

| Parameter | Frequency (GHz) | Min. | Typ. | Max. | Units |
|-----------------|-----------------|------|------|------|-------|
| Frequency Range | | DC | | 90 | GHz |
| Insertion Loss | 0.01-30 | - | 0.13 | 0.66 | dB |
| | 30-60 | - | 0.28 | 0.66 | |
| | 60-90 | - | 0.41 | 0.66 | |
| VSWR | 0.01-30 | - | 1.06 | 1.32 | :1 |
| | 30-60 | - | 1.07 | 1.32 | |
| | 60-90 | - | 1.11 | 1.32 | |

ABSOLUTE MAXIMUM RATINGS¹

| | |
|----------------------------|-----------------|
| 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

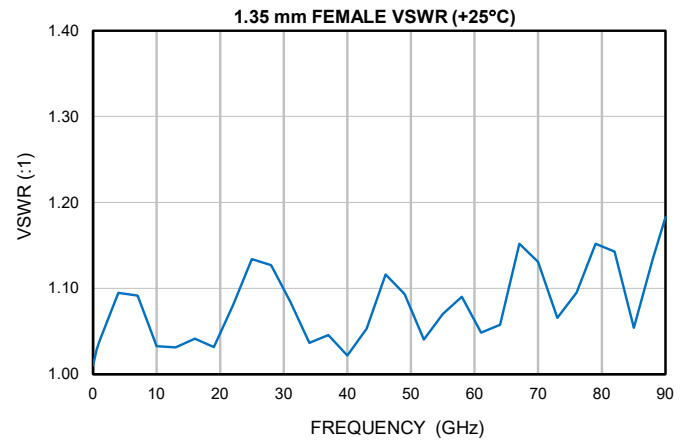
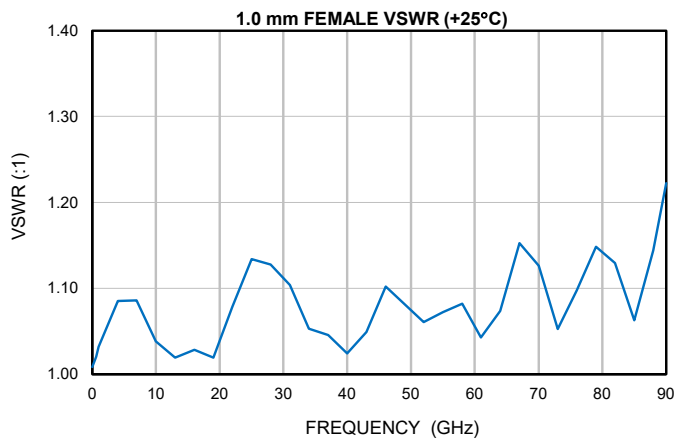
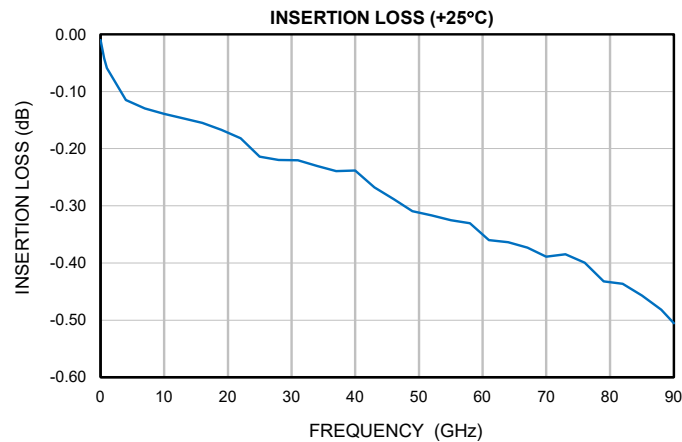
Adapter

10F-135F+

Mini-Circuits

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

TYPICAL PERFORMANCE GRAPHS





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Adapter

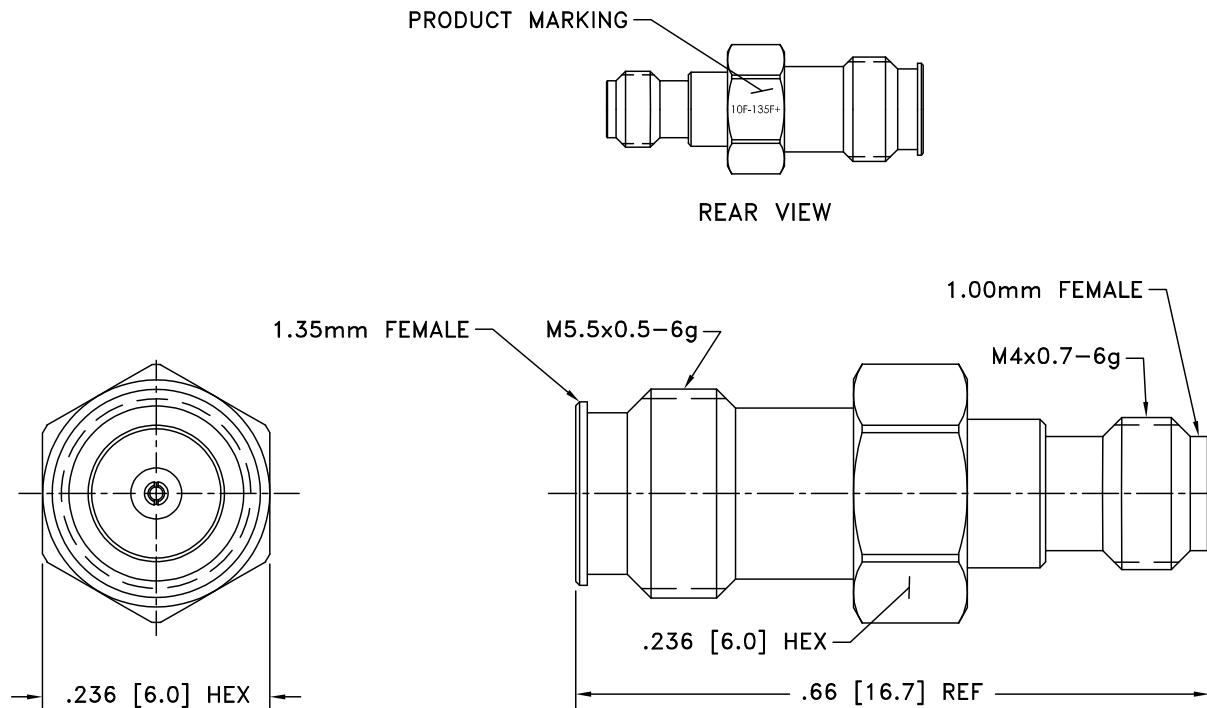
10F-135F+

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

CONNECTOR SPECIFICATIONS

| Description | Connector 1 | Connector 2 |
|----------------|---------------|----------------|
| Connector Type | 1.0 mm Female | 1.35 mm Female |
| Orientation | Straight | Straight |

CASE STYLE DRAWING



Weight: 1.8 grams

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

PRODUCT MARKING*: 10F-135F+

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





COAXIAL

Adapter

10F-135F+

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

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

| | |
|---------------------------|--|
| Performance Data & Graphs | Data |
| | Graphs |
| | S-Parameter (S2P Files) Data Set (.zip file) |
| Case Style | DJ3602-3 |
| RoHS Status | Compliant |
| Environmental Ratings | ENV89 |

NOTES

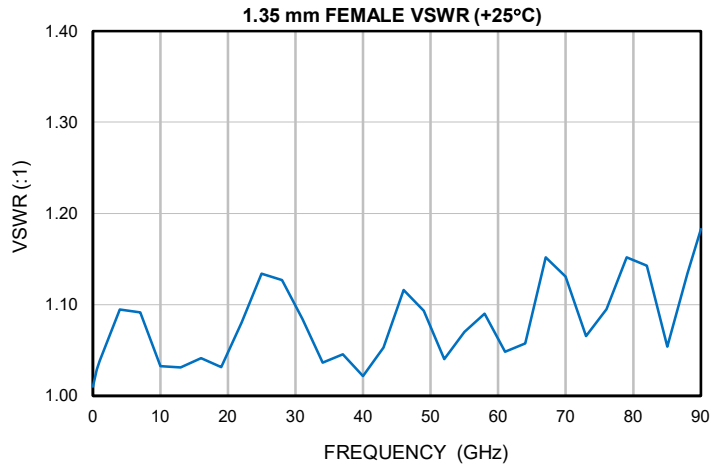
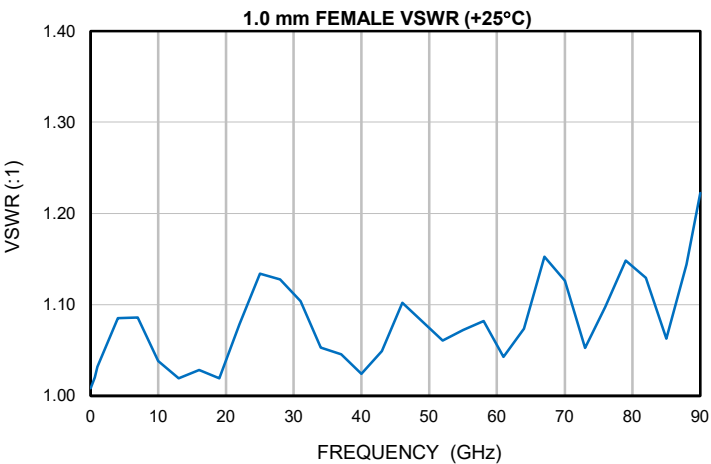
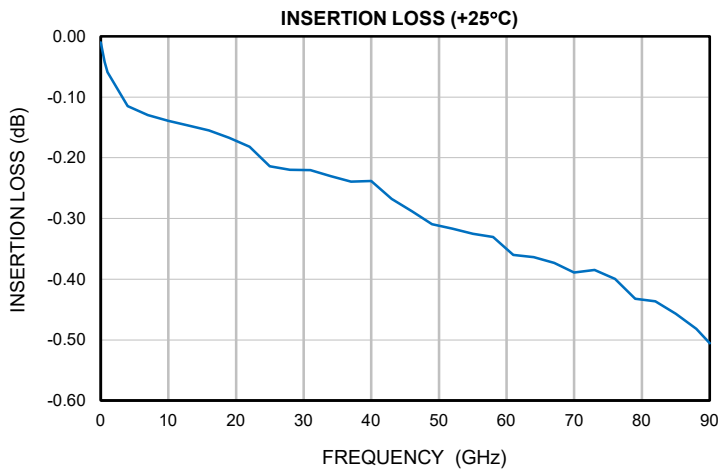
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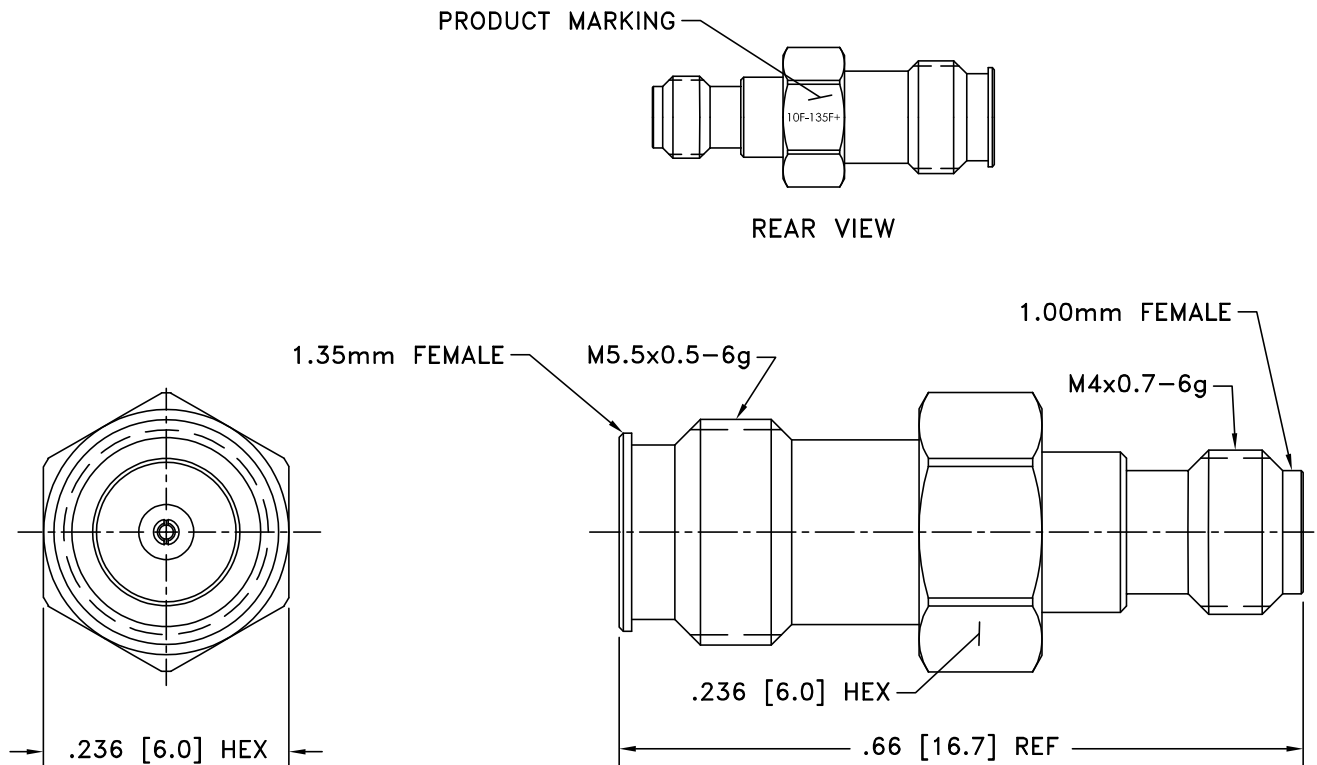


Adaptor 1.0mm-Female to 1.35mm-Female**10F-135F+***Typical Performance Data (+25°C)*

| FREQ. | INSERTION LOSS | 1.0mm-FEMALE VSWR | 1.35mm-FEMALE VSWR |
|-------|----------------|----------------------|-----------------------|
| (GHz) | (dB) | (:1) | (:1) |
| 0.01 | 0.01 | 1.01 | 1.01 |
| 0.6 | 0.04 | 1.02 | 1.03 |
| 1.0 | 0.06 | 1.03 | 1.04 |
| 4.0 | 0.11 | 1.09 | 1.09 |
| 7.0 | 0.13 | 1.09 | 1.09 |
| 10.0 | 0.14 | 1.04 | 1.03 |
| 13.0 | 0.15 | 1.02 | 1.03 |
| 16.0 | 0.15 | 1.03 | 1.04 |
| 19.0 | 0.17 | 1.02 | 1.03 |
| 22.0 | 0.18 | 1.08 | 1.08 |
| 25.0 | 0.21 | 1.13 | 1.13 |
| 28.0 | 0.22 | 1.13 | 1.13 |
| 31.0 | 0.22 | 1.10 | 1.08 |
| 34.0 | 0.23 | 1.05 | 1.04 |
| 37.0 | 0.24 | 1.05 | 1.05 |
| 40.0 | 0.24 | 1.02 | 1.02 |
| 43.0 | 0.27 | 1.05 | 1.05 |
| 46.0 | 0.29 | 1.10 | 1.12 |
| 49.0 | 0.31 | 1.08 | 1.09 |
| 52.0 | 0.32 | 1.06 | 1.04 |
| 55.0 | 0.32 | 1.07 | 1.07 |
| 58.0 | 0.33 | 1.08 | 1.09 |
| 61.0 | 0.36 | 1.04 | 1.05 |
| 64.0 | 0.36 | 1.07 | 1.06 |
| 67.0 | 0.37 | 1.15 | 1.15 |
| 70.0 | 0.39 | 1.13 | 1.13 |
| 73.0 | 0.39 | 1.05 | 1.07 |
| 76.0 | 0.40 | 1.10 | 1.10 |
| 79.0 | 0.43 | 1.15 | 1.15 |
| 82.0 | 0.44 | 1.13 | 1.14 |
| 85.0 | 0.46 | 1.06 | 1.05 |
| 88.0 | 0.48 | 1.14 | 1.13 |
| 90.0 | 0.51 | 1.22 | 1.18 |

Typical Performance Curves





Weight: 1.8 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

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 | |