

185F-KM+

Circuits 50Ω DC to 40 GHz 1.85 mm-Female to 2.92 mm-Male

THE BIG DEAL

- Ultra Wideband, DC to 40 GHz
- Flat Response

APPLICATIONS

• Low Insertion Loss, 0.11 dB typ.

Interconnection of RF cable and equipment

• Excellent VSWR, 1.04:1 typ.



Generic photo used for illustration purposes only

| Model No. | 185F-KM+ |
|------------|------------------------|
| Case Style | DJ2383-1 |
| Connectors | 1.85 mm-F to 2.92 mm-M |

+RoHS Compliant The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

PRODUCT OVERVIEW

Mini-Circuits' 185F-KM+ is a coaxial 1.85 mm-F to 2.92 mm-M adapter supporting a wide range of applications from DC to 40 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The 185F-KM+ features passivated stainless steel construction and measures only 0.79" in length.

KEY FEATURES

| Features | Advantages |
|--|--|
| Wideband, DC to 40 GHz | Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use. |
| Excellent VSWR, 1.04:1 | Provides good matching for 50 Ω systems and minimizes signal reflections across wide frequency range. |
| Low Insertion Loss, 0.11 dB | Provides excellent signal power transmission from input to output. |
| Passivated stainless steel construction. | Stands up to wear and tear in demanding environments and provides excellent reliability. |
| Very wide operating temperature range, -55 to +100 °C | Withstands extreme operating conditions and is suitable for use near high power componentry where heat rise is common. |



Adapter



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50Ω DC to 40 GHz 1.85 mm-Female to 2.92 mm-Male

| ELECTRICAL SPECIFICATIONS AT 25°C | | | | | | |
|-----------------------------------|-----------------|------|------|------|-------|--|
| Parameter | Condition (GHz) | Min. | Тур. | Max. | Units | |
| Frequency Range | | DC | | 40 | GHz | |
| Insertion Loss | DC - 8 | _ | 0.05 | 0.3 | dB | |
| | 8 - 18 | _ | 0.11 | 0.3 | | |
| | 18 - 26.5 | _ | 0.15 | 0.3 | | |
| | 26.5 - 40 | _ | 0.20 | 0.6 | | |
| VSWR | DC - 8 | _ | 1.01 | 1.15 | | |
| | 8 - 18 | _ | 1.04 | 1.15 | .1 | |
| | 18 - 26.5 | _ | 1.06 | 1.15 | :1 | |
| | 26.5 - 40 | _ | 1.05 | 1.15 | | |

ABSOLUTE MAXIMUM RATINGS

| Parameter | Ratings |
|-----------------------|-----------------|
| Operating Temperature | -55°C to +100°C |
| Storage Temperature | -55°C to +100°C |
| | |

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



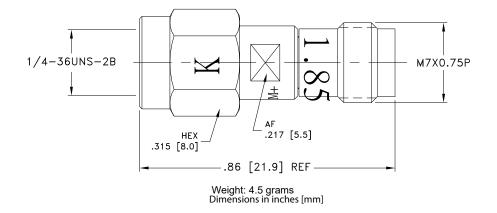
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COAXIAL CONNECTIONS

| Connector 1 | 1.85 mm-F |
|-------------|-----------|
| Connector 2 | 2.92 mm-M |

OUTLINE DRAWING





COAXIAL Adapter

185F-KM+

1.01

1.07

1.10

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50Ω

DC to 40 GHz 1.85 mm-Female to 2.92 mm-Male

1.01

1.08

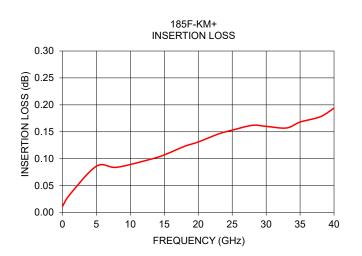
1.10

| TYPICAL PERFORMANCE DATA AND CHARTS | | | | | |
|-------------------------------------|------------------------|----------------|--------------|--|--|
| Frequency (GHz) | Insertion Loss (dB) | VSWR (:1) | | | |
| | | 1.85 mm-Female | 2.92 mm-Male | | |
| 0.01 | 0.02 | 1.01 | 1.02 | | |
| 0.03 | 0.01 | 1.01 | 1.00 | | |
| 1.0 | 0.03 | 1.01 | 1.01 | | |
| 5.0 | 0.09 | 1.01 | 1.02 | | |
| 8.0 | 0.08 | 1.03 | 1.03 | | |
| 13.0 | 0.10 | 1.05 | 1.04 | | |
| 15.0 | 0.11 | 1.04 | 1.03 | | |
| 18.0 | 0.12 | 1.02 | 1.02 | | |
| 20.0 | 0.13 | 1.05 | 1.04 | | |
| 23.0 | 0.15 | 1.06 | 1.05 | | |
| 25.0 | 0.15 | 1.05 | 1.04 | | |
| 28.0 | 0.16 | 1.06 | 1.06 | | |
| 30.0 | 0.16 | 1.08 | 1.05 | | |
| 33.0 | 0.16 | 1.04 | 1.04 | | |
| | | | | | |

0.17

0.18

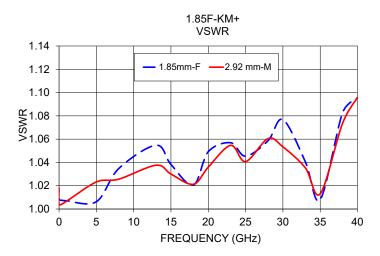
0.19



35.0

38.0

40.0



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.
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