



COAXIAL

# Adapter

## KM-24F+

50Ω DC to 40 GHz 2.4 mm-Female to 2.92 mm-Male

### THE BIG DEAL

- Ultra-Wideband, DC to 40 GHz
- Low Insertion Loss, 0.15 dB Typ.
- Excellent VSWR, 1.05:1 Typ.
- Flat response



Generic photo used for illustration purposes only

### APPLICATIONS

- Interconnection of RF cable and equipment

|            |                               |
|------------|-------------------------------|
| Model No.  | KM-24F+                       |
| Case Style | DJ2383                        |
| Connectors | 2.4 mm Female to 2.92 mm Male |

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

### PRODUCT OVERVIEW

Mini-Circuits' KM-24F+ is a coaxial 2.4 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 KM-24F+ features passivated stainless steel construction and measures only 0.85" (l) x 0.36" (dia.).

### 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, 1.05:1 Typ.                           | Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.                  |
| Low Insertion Loss, 0.15 dB Typ.                      | 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 components where heat rise is common. |



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### ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter       | Frequency (GHz) | Min. | Typ. | Max. | Units |
|-----------------|-----------------|------|------|------|-------|
| Frequency Range | -               | DC   | -    | 40   | GHz   |
| Insertion Loss  | DC - 5          | -    | 0.05 | -    | dB    |
|                 | 5 - 10          | -    | 0.12 | -    |       |
|                 | 10 - 20         | -    | 0.15 | -    |       |
|                 | 20 - 40         | -    | 0.16 | 0.6  |       |
| VSWR            | DC - 5          | -    | 1.03 | 1.15 | :1    |
|                 | 5 - 10          | -    | 1.03 | 1.15 |       |
|                 | 10 - 20         | -    | 1.05 | 1.15 |       |
|                 | 20 - 40         | -    | 1.09 | 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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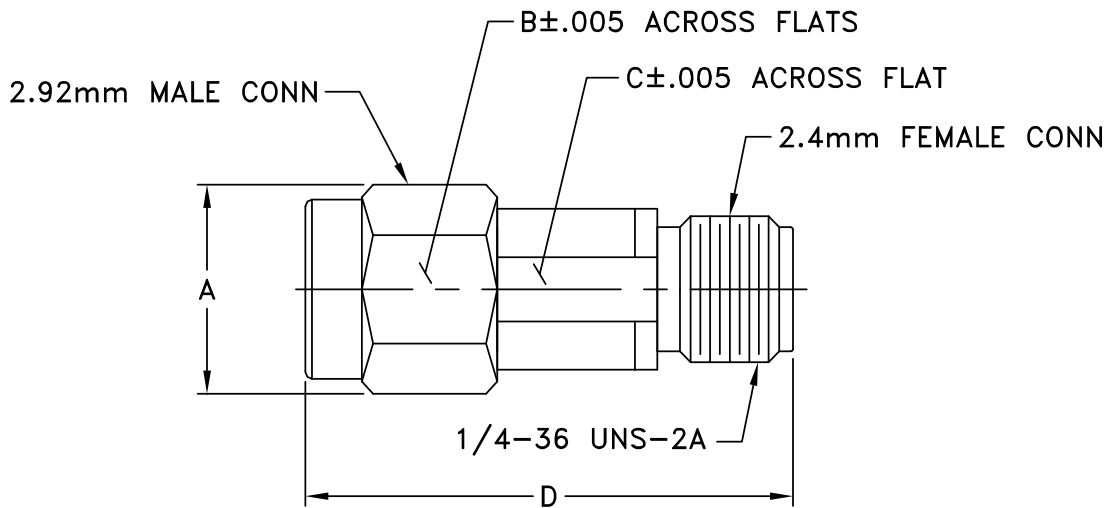
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### COAXIAL CONNECTIONS

|             |               |
|-------------|---------------|
| Connector 1 | 2.4 mm Female |
| Connector 2 | 2.92 mm Male  |

### OUTLINE DRAWING



### OUTLINE DIMENSIONS (Inches/mm)

| A    | B     | C     | D     | E  | wt    |
|------|-------|-------|-------|----|-------|
| 0.36 | 0.312 | 0.236 | 0.850 | -- | grams |
| 9.14 | 7.93  | 5.99  | 21.59 | -- | 3.8   |



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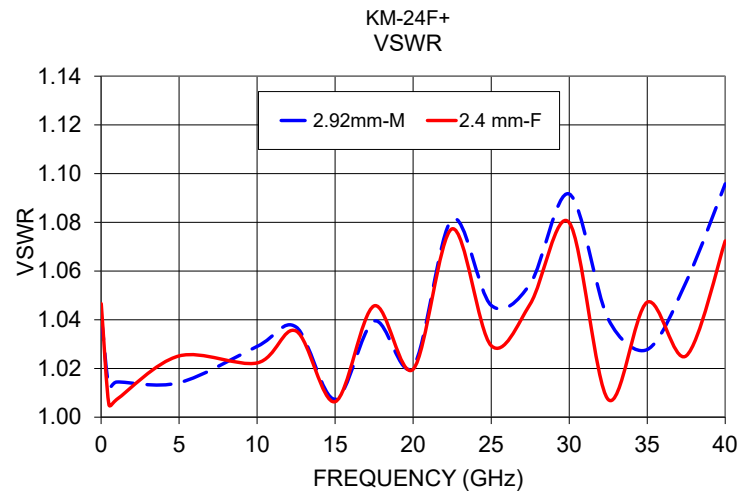
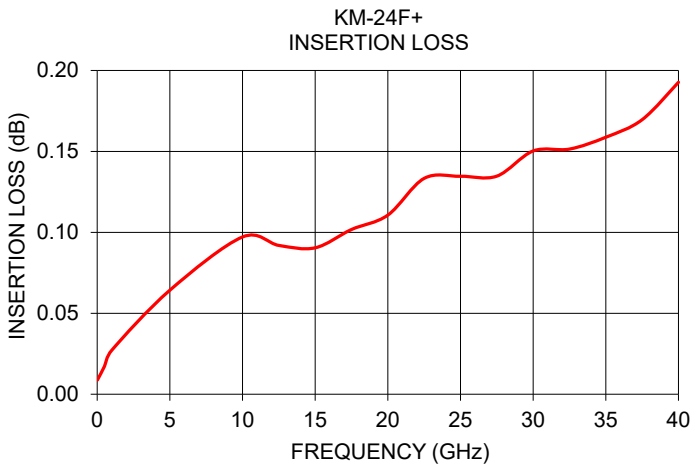
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### TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (GHz) | Insertion Loss (dB) | VSWR (:1)    |             |
|-----------------|---------------------|--------------|-------------|
|                 |                     | 2.4mm Female | 2.92mm Male |
| 0.01            | 0.01                | 1.04         | 1.05        |
| 0.5             | 0.02                | 1.01         | 1.01        |
| 1.0             | 0.03                | 1.01         | 1.01        |
| 5.0             | 0.06                | 1.01         | 1.03        |
| 10.0            | 0.10                | 1.03         | 1.02        |
| 12.5            | 0.09                | 1.04         | 1.04        |
| 15.0            | 0.09                | 1.01         | 1.01        |
| 17.5            | 0.10                | 1.04         | 1.05        |
| 20.0            | 0.11                | 1.02         | 1.02        |
| 22.5            | 0.13                | 1.08         | 1.08        |
| 25.0            | 0.13                | 1.05         | 1.03        |
| 27.5            | 0.13                | 1.05         | 1.05        |
| 30.0            | 0.15                | 1.09         | 1.08        |
| 32.5            | 0.15                | 1.04         | 1.01        |
| 35.0            | 0.16                | 1.03         | 1.05        |
| 37.5            | 0.17                | 1.06         | 1.03        |
| 40.0            | 0.19                | 1.10         | 1.07        |



#### 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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