

Coaxial

# Adapter 2.92 mm-F to 2.4 mm-F with Bulkhead

**24B-KB+**

50Ω DC to 40 GHz

## The Big Deal

- Ultra-wideband, DC-40 GHz
- Flat response
- Low insertion loss, 0.16 dB@20 GHz
- Excellent VSWR, 1.07:1 @20 GHz



CASE STYLE: DJ3049

## Product Overview

Mini-Circuits' 24B-KB+ is a coaxial 2.92 mm-F to 2.4 mm-F with bulkhead 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 24B-KB+ features passivated stainless steel construction and measures only 0.74" (l) x 0.43" (dia.).

## Key Features

Feature	Advantages
Wideband, DC to 40 GHz	Wide frequency range provides application flexibility and makes this model ideal for broad-band and multi-band use.
Excellent VSWR, 1.07:1 @20 GHz	Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.
Low insertion loss, 0.16 dB @20 GHz	Provides excellent signal power transmission from input to output.
Bulkhead	Useful for installation on front panel of rack mount equipment.
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.

### 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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# Adapter 2.92 mm-F to 2.4 mm-F with Bulkhead

50Ω DC to 40 GHz

## 24B-KB+



CASE STYLE: DJ3049

Connectors	Model
2.92 mm-F to 2.4 mm-F	24B-KB+

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Maximum 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.

### Features

- flat response
- excellent VSWR, 1.07 typ. @ 20 GHz and 1.09 typ. up to 40 GHz
- low cost adapters, available from stock
- stainless steel body, passivated

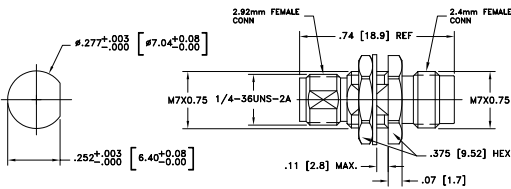
### Applications

- rack mount equipment
- lab nest

### Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		40	GHz
Insertion Loss	DC - 40	-	0.14	0.4	dB
VSWR	DC - 40		1.05	1.25	:1

### Outline Drawing

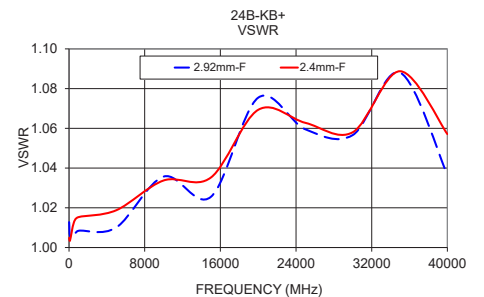
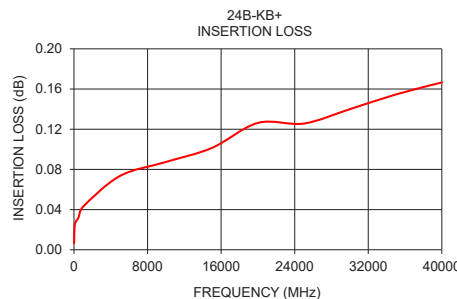


Weight: 4.3 grams

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

### Typical Performance Data

Frequency (GHz)	Insertion Loss (dB)	VSWR (:1)	
		2.92 mm-F	2.4 mm-F
10	0.01	1.01	1.00
100	0.03	1.01	1.00
500	0.03	1.01	1.01
1000	0.04	1.01	1.02
5000	0.07	1.01	1.02
10000	0.09	1.04	1.03
15000	0.10	1.03	1.04
20000	0.13	1.08	1.07
25000	0.13	1.06	1.06
30000	0.14	1.06	1.06
35000	0.15	1.09	1.09
40000	0.17	1.04	1.06



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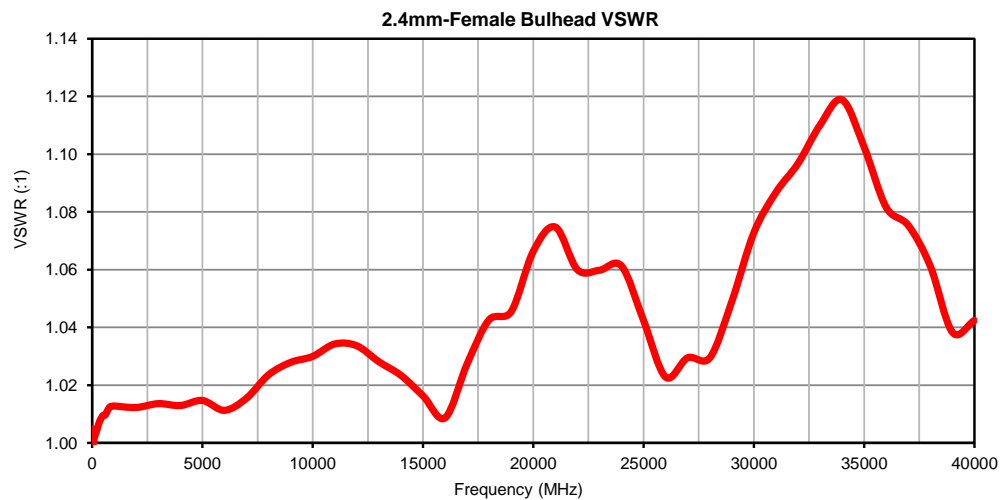
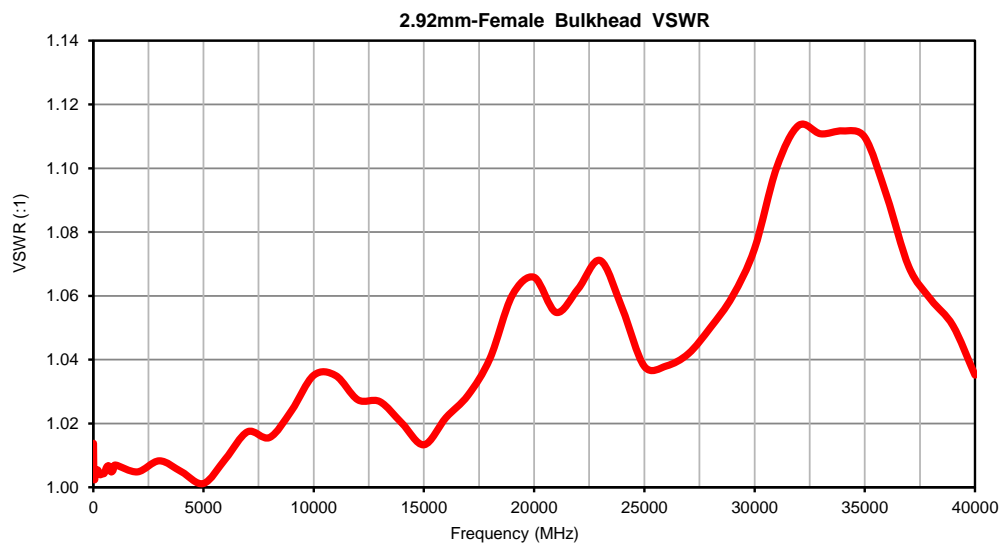
REV. OR  
ECO-003104  
24B-KB+  
CM/CP/AM  
200625

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	2.92mm-FEMALE BULKHEAD VSWR (:1)	2.4mm-FEMALE BULKHEAD VSWR (:1)
10	0.00	1.01	1.00
20	0.00	1.01	1.00
30	0.00	1.00	1.00
40	0.01	1.00	1.00
50	0.01	1.00	1.00
60	0.01	1.00	1.00
70	0.01	1.00	1.00
80	0.02	1.00	1.00
90	0.02	1.01	1.00
100	0.02	1.00	1.00
200	0.02	1.01	1.00
300	0.03	1.00	1.01
400	0.03	1.00	1.01
500	0.03	1.00	1.01
600	0.03	1.01	1.01
700	0.03	1.01	1.01
800	0.03	1.00	1.01
900	0.03	1.01	1.01
1000	0.03	1.01	1.01
2000	0.04	1.00	1.01
3000	0.07	1.01	1.01
4000	0.07	1.00	1.01
5000	0.07	1.00	1.01
6000	0.07	1.01	1.01
7000	0.07	1.02	1.02
8000	0.08	1.02	1.02
9000	0.08	1.02	1.03
10000	0.09	1.04	1.03
11000	0.09	1.04	1.03
12000	0.10	1.03	1.03
13000	0.10	1.03	1.03
14000	0.11	1.02	1.02
15000	0.11	1.01	1.02
16000	0.12	1.02	1.01
17000	0.13	1.03	1.03
18000	0.15	1.04	1.04
19000	0.16	1.06	1.05
20000	0.18	1.07	1.07
21000	0.18	1.05	1.07
22000	0.16	1.06	1.06
23000	0.15	1.07	1.06
24000	0.14	1.06	1.06
25000	0.13	1.04	1.04
26000	0.13	1.04	1.02
27000	0.12	1.04	1.03
28000	0.13	1.05	1.03
29000	0.13	1.06	1.05
30000	0.14	1.07	1.07
31000	0.15	1.10	1.09
32000	0.15	1.11	1.10
33000	0.16	1.11	1.11
34000	0.16	1.11	1.12
35000	0.16	1.11	1.10
36000	0.16	1.09	1.08
37000	0.16	1.07	1.08
38000	0.16	1.06	1.06
39000	0.16	1.05	1.04
40000	0.17	1.04	1.04



Typical Performance Curves

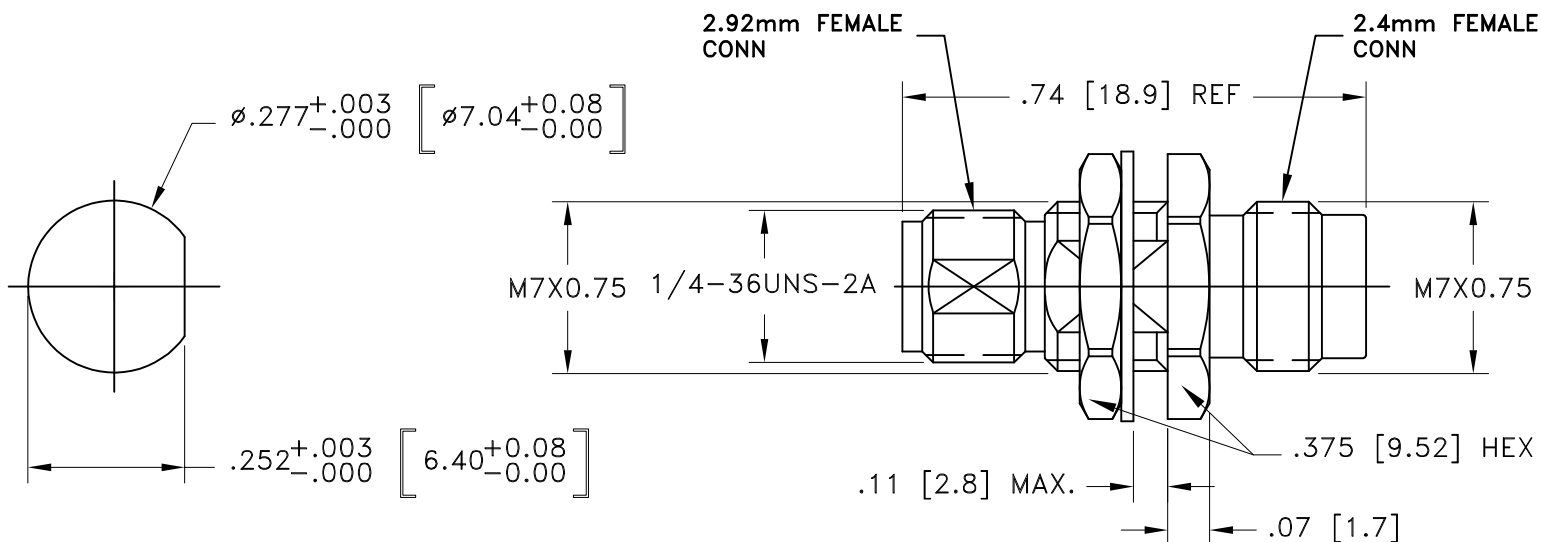


# Case Style

# DJ

## Outline Dimensions

### DJ3049



Weight: 4.3 grams

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

### Notes:

1. Case material: Stainless Steel.
2. Finish: Passivation.

 **Mini-Circuits**<sup>®</sup>  
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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 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, conditionB-3,except over -55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12