

KB-KB50+

Mini-Circuits

DC to 40 GHz 2.92 mm-Female to 2.92 mm-Female with Bulkhead

THE BIG DEAL

- Ultra-Wideband, DC to 40 GHz
- Flat Response

APPLICATIONS

Lab Test

- Low Insertion Loss, 0.14 dB at 20 GHz
- Excellent VSWR, 1.05:1 at 20 GHz



Generic photo used for illustration purposes only

Model No.	Model No. KB-KB50+	
Case Style	DJ3050	
Connectors	2.92 mm-F to 2.92 mm-F	

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

PRODUCT OVERVIEW

Rack Mount Equipment

Mini-Circuits' KB-KB50+ is a coaxial 2.92mm-F to 2.92mm-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 KB-KB50+ features rugged, passivated stainless steel construction and measures only 0.88" (I) x 0.43" (dia.).

KEY FEATURES

Features	Advantages
Ultra-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 at 20 GHz	Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.
Low Insertion Loss, 0.14 dB at 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 componentry where heat rise is common.



Adapter

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50Ω DC to 40 GHz 2.92 mm-Female to 2.92 mm-Female with Bulkhead

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Тур.	Max.	Units
Frequency Range	-	DC	-	40	GHz
Insertion Loss	DC-40	-	0.15	0.4	dB
VSWR	DC-40	-	1.03	1.25	:1

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.



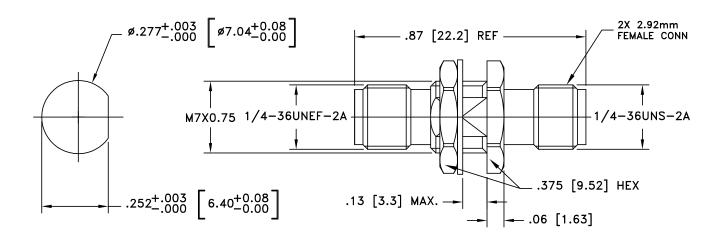
50Ω DC to 40 GHz 2.92 mm-Female to 2.92 mm-Female with Bulkhead

KB-KB50+

COAXIAL CONNECTIONS

Connector 1	2.92 mm-F	
Connector 2	2.92 mm-F with Bulkhead	

OUTLINE DRAWING



 $\label{eq:Weight: 4.55 grams} \\ \mbox{Dimensions are in inches [mm]. Tolerances: 2 Pl. \pm .03; 3 Pl. \pm .015} \\$



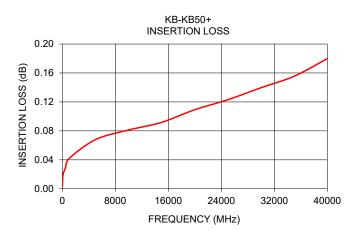
Adapter

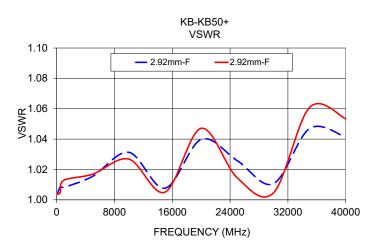
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Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)		
		2.92 mm-Female	2.92 mm-Female	
10	0.00	1.00	1.00	
100	0.02	1.00	1.00	
500	0.03	1.01	1.00	
1000	0.04	1.01	1.01	
5000	0.07	1.02	1.02	
10000	0.08	1.03	1.03	
15000	0.09	1.01	1.01	
20000	0.11	1.04	1.05	
25000	0.12	1.03	1.01	
30000	0.14	1.01	1.00	
35000	0.16	1.05	1.06	
40000	0.18	1.04	1.05	

TYPICAL PERFORMANCE DATA AND CHARTS





KB-KB50+

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/terms/viewterm.html

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