Datasheet

ADP-BNCF-BNCF-B
BNC Jack to BNC Jack Adapter

The ADP-BNCF-BNCF-B is a BNC jack to BNC bulkhead jack adapter. Operating from 0 Hz to 12 GHz, the ADP-BNCF-BNCF-B combines superior performance, compact size, and a convenient bayonet-style mating interface to provide a reliable, easy-to-use adapter. Additionally, all Linx BNC adapters meet RoHS lead free standards and are tested to meet requirements for corrosion resistance, vibration, mechanical and thermal shock.

Features

- 0 Hz to 12 GHz operation
- BNC jack (female socket) connection
  - Nickel plated brass body
  - Gold plated phosphor bronze center contact
- BNC bulkhead jack (female socket) connection
  - Nickel plated brass body
  - Gold plated phosphor bronze center contact
  - Nickel plated brass washer and hex nut provided

Applications

- Audio/Video
- Broadcasting
- Test Equipment
- Surveillance Systems
- Ethernet
- Industrial, Commercial, Enterprise

Table 1. Electrical Specifications

Parameter	Value
Impedance	50 Ω
Frequency Range	0 Hz to 12 GHz
Contact Resistance	Center: ≤ 3.0 mΩ Outer: ≤ 2.0 mΩ
Insertion Loss (dB max.)	1.4
VSWR (max.)	1.7

Ordering Information

Part Number	Description
ADP-BNCF-BNCF-B	BNC jack (female socket) to BNC bulkhead jack (female socket) adapter

Available from Linx Technologies and select distributors and representatives.

Product Dimensions

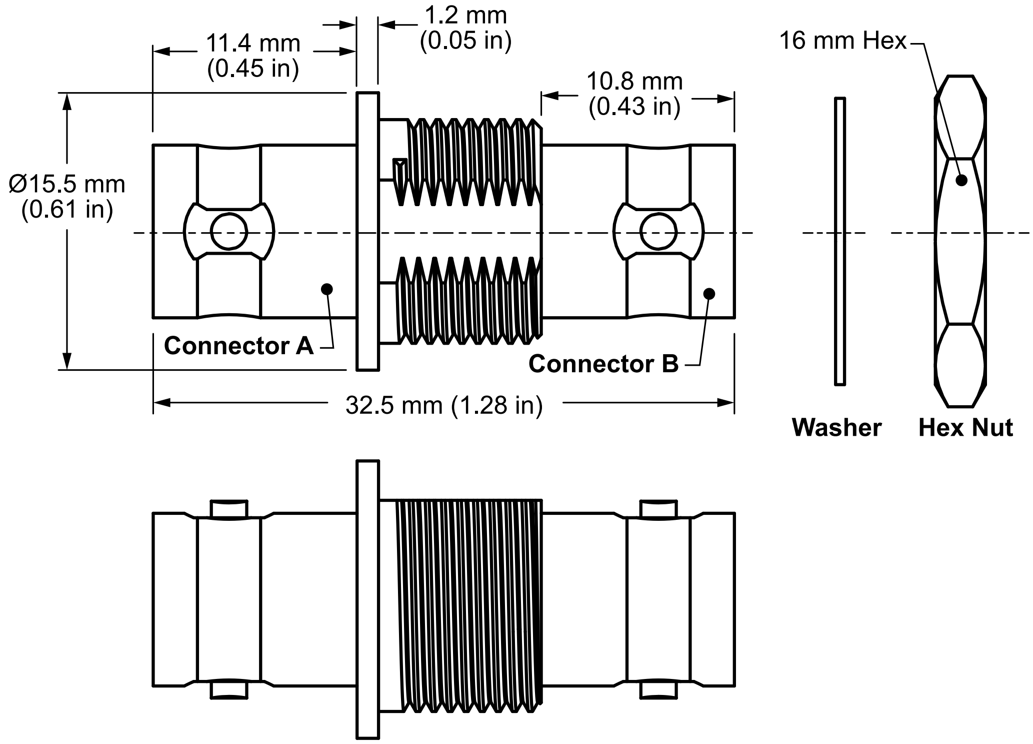

Figure 1. Product Dimensions for the ADP-BNCF-BNCF-B Adapter

Table 2. Adapter Components

ADP-BNCF-BNCF-B	Connector A BNC jack (female socket)		Connector B BNC bulkhead jack (female socket)	
Connector Part	**Material**	**Finish**	**Material**	**Finish**
Body	Brass	Nickel	Brass	Nickel
Center Contact	Phosphor bronze	Gold	Phosphor bronze	Gold
Insulator	POM	–	POM	–

Recommended Mounting Diagram

The recommended enclosure mounting dimensions for the ADP-BNCF-BNCF-B are shown in Figure 2. The enclosure wall thickness should not exceed 4.0 mm (0.156 in). Installation of the washer and hex nut should not exceed a torque value of 0.56 Nm (5 in/lbs).

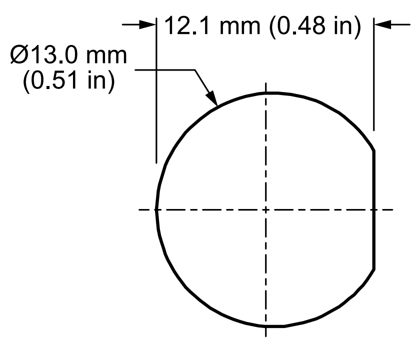

Figure 2. Recommended Enclosure Mounting Dimensions

Table 3. Mechanical Specifications

ADP-BNCF-BNCF-B	Connector A BNC jack (female socket)	Connector B BNC bulkhead jack (female socket)
Mounting Type	Bulkhead Mount	
Fastening Type	Bayonet-style Coupling (Push/Twist)	Bayonet-style Coupling (Push/Twist)
Interface in Accordance with	MIL-STD-348B	MIL-STD-348B
Durability	500 cycles min.	500 cycles min.
Weight	11.6 g (0.41 oz)	

Table 4. Environmental Specifications

MIL-STD, Method, Test Condition	
Corrosion (Salt spray)	MIL-STD-202 Method 101 test condition B
Thermal Shock	MIL-STD-202 Method 107 test condition C
Vibration	MIL-STD-202 Method 204 test condition B
Mechanical Shock	MIL-STD-202 Method 213 test condition B
Moisture Resistance	MIL-STD-202 Method 106 test condition D
Temperature Range	-65 °C to +165 ° C
Environmental Compliance	RoHS

Insertion Loss

Figure 3 shows the Insertion Loss for the ADP-BNCF-BNCF-B adapter. Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line.

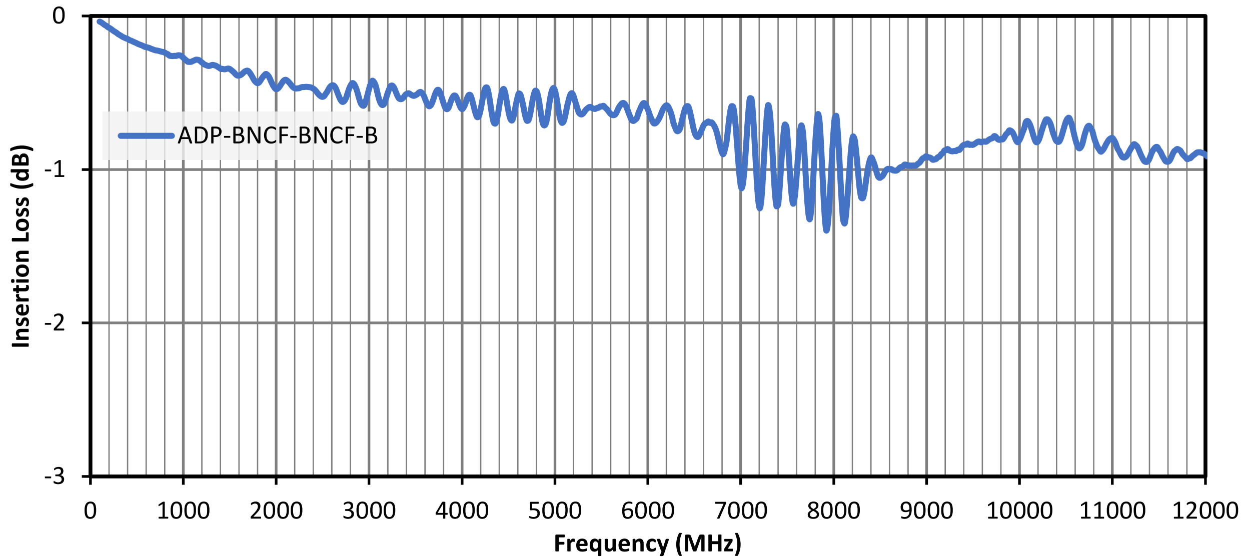

Figure 3. Insertion Loss for the ADP-BNCF-BNCF-B Adapter

VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the adapter's bandwidth for the ADP-BNCF-BNCF-B adapter. VSWR describes how efficiently power is transmitted. A lower VSWR value indicates better performance at a given frequency.

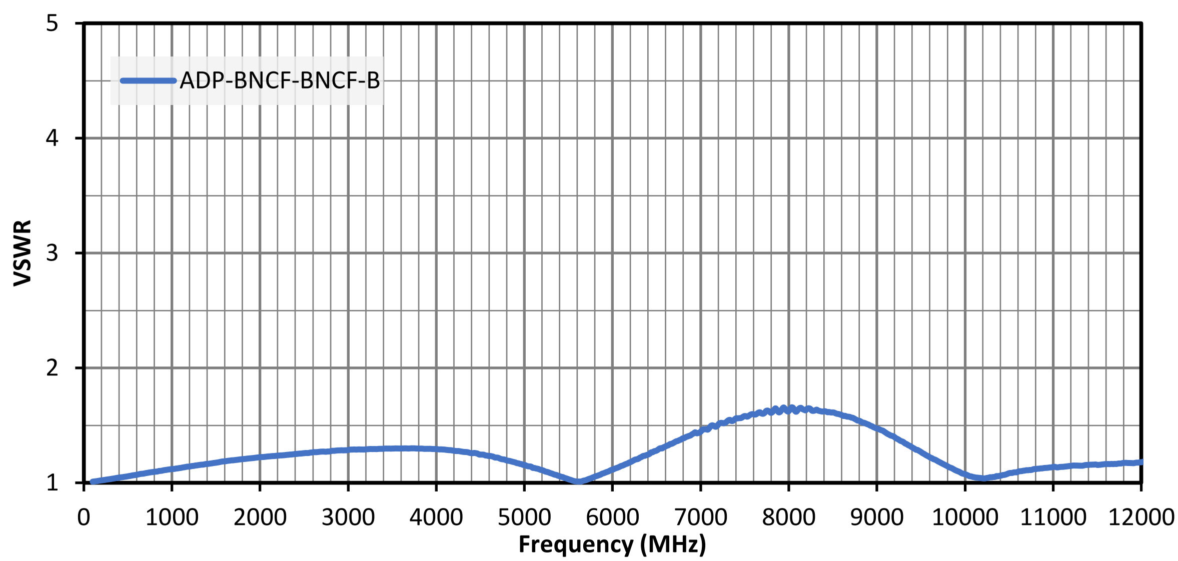

Figure 4. VSWR for the ADP-BNCF-BNCF-B Adapter

Packaging Information

The ADP-BNCF-BNCF-B adapter is individually placed in a clear polyethylene bag. 25 pcs are packaged in a larger protective bag. 750 pcs are packaged in a shipping carton (370 mm x 330 mm x 240 mm). Distribution channels may offer alternative packaging options.

Connector & Adapter Definitions and Useful Formulas

VSWR - Voltage Standing Wave Ratio. VSWR is a unitless ratio that describes how efficiently power is transmitted through the connector. A lower VSWR value indicates better performance at a given frequency. VSWR is easily derived from Return Loss.

$$\mathrm{VSWR} = \frac{10^{\left[\frac{\mathrm{Return\ \ Loss}}{20}\right]} + 1}{10^{\left[\frac{\mathrm{Return\ \ Loss}}{20}\right]} - 1}$$

Insertion Loss - The loss of signal power (gain) resulting from the insertion of a device in a transmission line. Insertion loss can be derived from the power transmitted to the load before the insertion of the component P_T and the power transmitted to the load after the insertion of the component P_R.

$$Insertion\ Loss\ (\mathrm{dB}) = 10\log_{10}\frac{P_T}{P_R}$$

Website: http://linxtechnologies.com
Linx Offices: 159 Ort Lane, Merlin, OR, US 97532
Phone: +1 (541) 471-6256
E-MAIL: info@linxtechnologies.com

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