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 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

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.

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

Electrical specifications and plots measured with a 102 mm x 102 mm (4.00 in x 4.00 in) reference ground plane.

PRODUCT DIMENSIONS

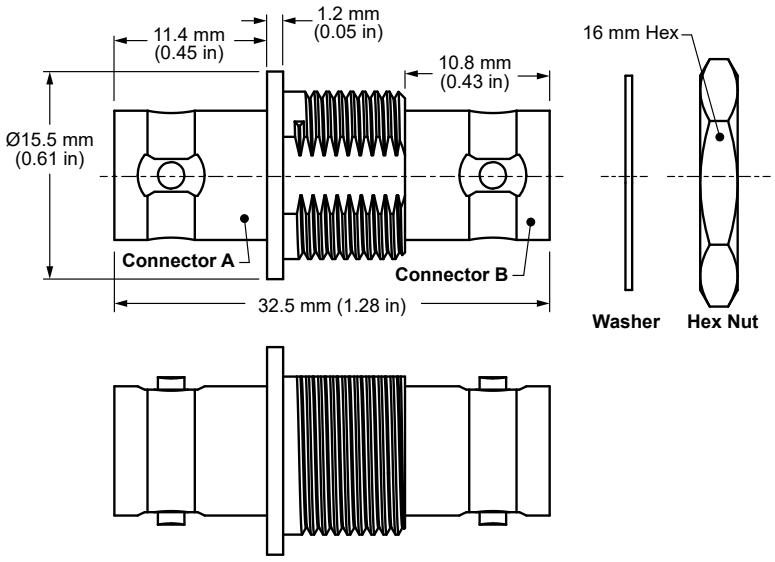

Figure 1. Product Dimensions for the ADP-BNCF-BNCF-B Adapter

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 Copper	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).

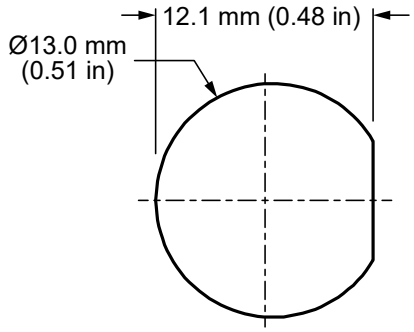

Figure 2. Recommended Enclosure Mounting Dimensions

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.

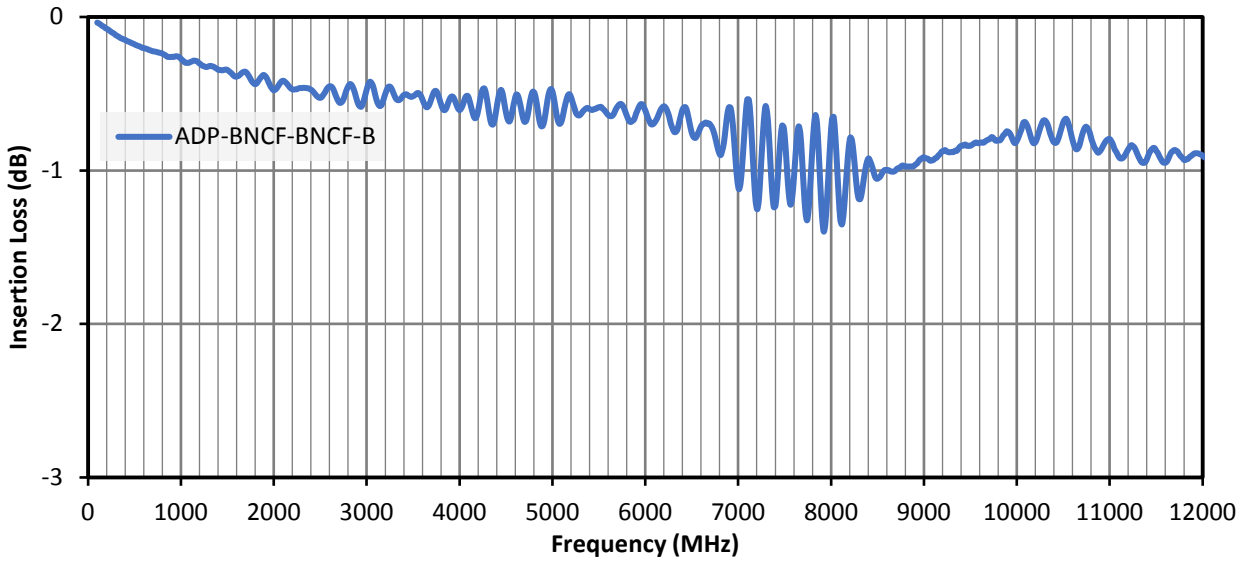

Figure 3. Insertion Loss for the ADP-BNCF-BNCF-B Adapter

VSWR

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

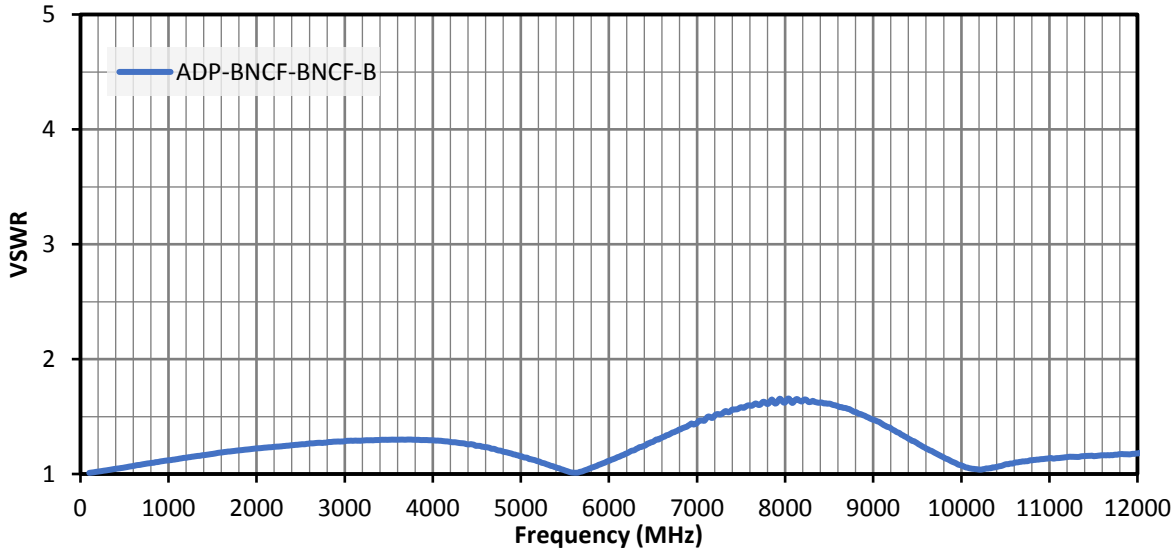

Figure 3. VSWR for the ADP-BNCF-BNCF-B Adapter

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 PT and the power transmitted to the load after the insertion of the component P_R .

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