

BNC RF Connectors and Assemblies



BNC Radio Frequency (RF) Connectors and Assemblies transmit signals up to 12 GHz and exceed performance requirements of serial-data transmission for high-speed, high-definition TV (HDTV), HD video and broadcast applications

Features and Benefits

Low return-loss performance that exceeds the Society of Motion Picture Television Engineers (SMPTE) standards

Surpasses serial data, transmission-performance requirements for high-speed, high-definition (HD) video and broadcast. Allows for sizeable future bandwidth expansion without hardware changes

75 Ohm connectors capable of 12 GHz signal transmission with the best impedance matching in the industry

Provides cutting-edge performance. Minimizes signal reflection to support ultra HD video applications

Right-angle, vertical, through-hole and bulkhead PCB configurations

Provides a variety of options for design flexibility

BNC plug style assemblies available with 75 Ohm Belden 1694A cables

Offers a complete radio frequency (RF) solution from single supplier, eliminating assembly time

Available in 50 and 75 Ohms

Meets the connector needs for a variety of RF applications

Meets MIL-PRF-39012 requirements

Appropriate for aerospace / defense applications



BNC RF Connectors



BNC RF 75 Ohm 12 GHz Connector

Applications

Consumer

- High-Speed, High Definition TV(HDTV)
- HD Video and Broadcast Applications
- Professional Cameras
- Servers
- Recorders
- Monitors
- Switchers
- Controllers



Broadcast Control Panel



Professional Camera



Monitor

Networking / Telecommunications

Aerospace / Defense

Specifications

REFERENCE INFORMATION

Packaging: Tray or Bag
 Mates With: 73171-6690 BNC Plug STR
 Use With: 75 Ohm Belden 1694A cables
 Designed In: Millimeters
 RoHS: Yes

MECHANICAL

Coupling Nut Retention Force (Axial): 444.82N
 Force to Engage/Disengage:
 Engagement Force (Typical)
 Axial – 13.345N
 Radial – 11.12N
 Disengagement Force
 Axial – 13.345N
 Radial – 11.12N

ELECTRICAL

Nominal Impedance: 50 and 75 Ohms
 Frequency Rating:
 50 Ohms: DC to 10 GHz (max.)
 DC to 4 GHz (Optimum)
 DC to 2 GHz (Commercial)
 75 Ohms: 12 GHz
 DC to 4 GHz (max.)
 DC to 2 GHz (Optimum)
 DC to 2 GHz (Commercial)

Insertion Loss (max.): 12 GHz – 0.5 dB
 Return Loss (max.): 0 to 6 GHz – 30 dB
 6 to 8 GHz - 25dB
 8 to 12 GHz - 20 dB

Voltage (max.): 1000V – 50 and 75 Ohms
 12 GHz Design

Center Contact Resistance: 1.5 Megohms
 Outer Contact Resistance: 1.0 Megohms
 Dielectric Withstanding Voltage: 1,500 Vrm
 Insulation Resistance: 5,000 Megohms

PHYSICAL

50 Ohms
 Body: Brass or Zinc Alloy
 Plating: Nickel
 Center Contact: Phosphor Bronze
 Plating: Gold
 Insulator: Teflon

75 Ohms 3 GHz
 Body: Zinc Alloy or Brass
 Plating: Nickel or Gold
 Center Contact: Beryllium Copper, Phosphor
 Bronze or Brass
 Plating: Gold
 Insulator: Teflon

75 Ohms 12 GHz
 Body: Brass
 Plating: Tin
 Contact: Beryllium Copper or Brass
 Plating: Gold
 Insulator: Teflon

Operating Temperature: -65 to +165°C
 -65 to +95°C (Commercial)

Ordering Information

BNC RF Jacks, 75 Ohms, 12 GHz

Series No.	Description	Impedance (Ohms)	Frequency	Body	Plating
73171-6610	Right-Angle Jack w/ Jam Nut and Washer	75	12 GHz	Brass	Tin
73171-6611	Right-Angle Jack w/ Low-Profile Jam Nut and Washer				
73171-6612	Right-Angle Jack w/o Jam Nut and Washer				
73171-6590	Straight Jack				

BNC RF Jacks and Plugs, 50 and 75 Ohms

Series No.	Description	Impedance (Ohms)	Frequency	Style
73171	BNC Straight, Edge-Mount, Right-Angle Jacks and Plugs	50, 75	DC to 4 GHz DC to 10 GHz DC to 2 GHz 3 GHz	Miniature

75 Ohm Cable Assemblies

Series No.	Description
Call Molex	75 Ohm Belden 1694A terminated BNC plug style cable assemblies

www.molex.com/link/bncrfconnectors.html