

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 8K 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) standard 2082-1

Surpasses serial data, transmission-performance requirements for leading 8K high-speed, high-definition TV (HD TV) video equipment and camera manufacturers. Allows for sizeable future bandwidth expansion without hardware changes

Right-angle, vertical, edge mount and bulkhead PCB configurations

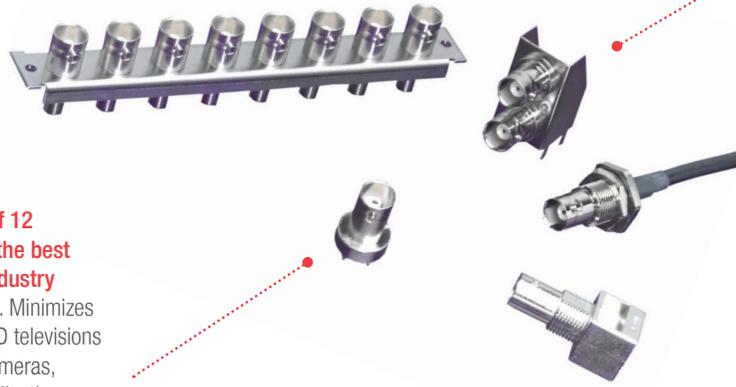
Provides a variety of options for design flexibility



BNC RF Connector, 12 GHz, 75 Ohms

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

Provides innovative performance. Minimizes signal reflection to support 8K HD televisions and video equipment such as cameras, monitors and switching gear applications, as well as real-time video transmission, AR/VR in future 5G applications



12 GHz BNC RF connectors and assemblies are available with 75 Ohm Belden 4794R cables

Meets or exceeds the targeted electrical performance level and can double the HD resolution for 8K HDTV, 8K HD video and various broadcast applications

12 GHz BNC RF Connectors in die-cast design for future high runner production

Offers new die-cast design for 8K HDTV products for the broadcast-television market

Applications

Consumer

- 8K HDTV
- 8K HD Video and Broadcast
- 8K Video Equipment
 - Professional Cameras
 - Recorders
 - Monitors
 - Switchers
 - Controllers

Real-Time Video

- 5G Systems
- Augmented Reality/Virtual Reality

Medical

- Telesurgery



Professional Video Camera



Video Controller



HDTV

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Specifications

REFERENCE INFORMATION

Packaging: Tray or Bag
 BNC Cable Plug – 73171-6840
 Mates With: BNC Jacks
 Straight- 73171-6590/-6730
 Edge Mount – 73171-6580
 Right Angle – 73171-6610/-6790/-6830/-6850
 Die-Cast Right Angle – 73171-6890
 Use With: 75 Ohm Belden 4794R cables
 RoHS: Yes

MECHANICAL

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

ELECTRICAL

Nominal Impedance: 75 Ohms
 Frequency Rating:
 DC to 12 GHz
 Insertion Loss: 0.5 dB
 Return Loss
Board Mount Connectors
 Straight Connector (6-12 GHz) - 25 dB
 PCB Launch (6-12 GHz) – 18 dB
 Right Angle Connector (6-12 GHz) - 20 dB
 PCB Launch (6 -12 GHz) – 16 dB
 Voltage: 1000V
 Center Contact Resistance
 Post Environment: 10.0 milli-Ohms max increase
 Outer Contact Resistance
 Post Environment: 20.0 milli-ohms max increase
 Dielectric Withstanding Voltage: 1,500 Vrms
 Insulation Resistance: 5,000 Mega-Ohms
Cable Connectors
 Straight Connector 6-12 GHz: 20 dB
 Connector with coaxial cable 6-12 GHz: 16 dB

PHYSICAL

75 Ohms 12 GHz Cable Plug
 Body: Beryllium copper and Brass
 Coupling Nut: Brass
 Plating: Nickel
 Contact: Brass
 Plating: Gold
 Insulator: Teflon
 Operating Temperature: -65°C to +165°C

Ordering Information

Series No.	Description	Frequency	Body	Plating
73171-6590	Straight Jack	12 GHz	Brass	Tin or Gold
73171-6730	Straight Jack Bulkhead w/Jam Nut and Washer			
73171-6580	Edge Mount Jack for 1.6mm thickness PCB			
73171-6610	Right-Angle Jack w/Jam Nut and Washer			
73171-6611	Right-Angle Jack w/Low-Profile Jam Nut and Washer			
73171-6612	Right-Angle Jack w/o Jam Nut and Washer			
73171-6616	Right-Angle Jack w/Jam Nut and Washer			
73171-6617	Right-Angle Jack w/Low-Profile Jam Nut and Washer			
73171-6618	Right-Angle Jack w/o Jam Nut and Washer			
73171-6790	Right-Angle Jack Signal SMT			
73171-6830	Right-Angle Jack SQ 1.20mm			
73171-6850	Right-Angle Jack			
73171-6890	Right-Angle Jack (Die-Cast)			

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Ordering Information

Series No.	Description	Center contact	Frequency	Body	Plating
73171-6840	Straight Plug w/Belden 4794 R	Crimp or Solder	12 GHz	Beryllium Copper / Brass	Nickel

Series No.	Description	Frequency	Body	Plating	Length (m)
89762-9290	Cable Assemblies with Straight Plug on Both Ends and Belden 4794R Cable	12 GHz	Beryllium Copper / Brass	Nickel	1.0
89762-9291					10.0
89762-9293					50.0
89762-9294					70.0
89762-9295					2.0
89762-9296					3.0
89762-9297					145.0
89762-9298					
89762-9299					

www.molex.com/link/bncrfconnectors.html

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