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

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

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

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
BNC RF Connectors and Assemblies

Specifications

REFERENCE INFORMATION
Packaging: Tray or Bag
BNC Cable Plug – 73171-6640
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

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

#### Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Description</th>
<th>Center contact</th>
<th>Frequency</th>
<th>Body</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>73171-6840</td>
<td>Straight Plug w/Belden 4794 R</td>
<td>Crimp or Solder</td>
<td>12 GHz</td>
<td>Beryllium Copper / Brass</td>
<td>Nickel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Description</th>
<th>Frequency</th>
<th>Body</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>89762-9290</td>
<td>Cable Assemblies with Straight Plug on Both Ends and Belden 4794R Cable</td>
<td>12 GHz</td>
<td>Beryllium Copper / Brass</td>
<td>Nickel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Description</th>
<th>Frequency</th>
<th>Body</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>89762-9291</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9293</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9294</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9295</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9296</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9297</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9298</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89762-9299</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[www.molex.com/link/bncrfconnectors.html](http://www.molex.com/link/bncrfconnectors.html)

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.