

HDBNC4794 SERIES DATASHEET

The Laird HDBNC4794 series of 12G SDI Cables is designed for 12GHz, 4K UHD signal transmission and is terminated with Amphenol BNC connectors. Amphenol's RF line of BNC and HD-BNC products is optimized for 4K Ultra HD Broadcast, providing crystal clear signal transmission on a single channel. The low-loss Belden 16AWG precision coax cable features a PVC jacket and a silver-plated copper conductor with gas-injected foamed HD polyethylene insulation. Designed for high-resolution camera systems, these sturdy cable assemblies provide extremely secure equipment connections and can be used for most broadcast environments, ENG camera crews, and studios. Available in BNC-to-BNC and HDBNC-to-BNC.

12G-SDI Maximum Distance

Laird Certifies this cable to work at a Max Transmission Distance of 225 Feet for 12G-SDI, even though Belden may show this distance as 321 Feet. To meet the Laird max transmission standard, signal integrity must remain 100% functional without any CRC errors. Your 12G-SDI ST 2082 signals may function at or beyond the manufacturer-certified lengths without issues; however, when CRC errors are present, there could be drops in audio, video, meta, and ancillary data. In most circumstances, video integrity remains intact at OEM distance

Features:

- 12GHz, 4K UHD Signal Transmission
- Durable 16AWG, Precision Coax Cable
- 12G SDI Optimized Amphenol BNC Connectors
- Superior Pull Strength for Secure Connections
- Maximize broadcast signal integrity
- Meets SMPTE 259, 292, 424, 425, 2081-1, 2082-1 Standards



HDBNC-MMxx



HDBNC-Bxx

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Specifications:

Belden 4794R Cable:

- **RG Type:** Series 7
- **Conductor Size:** 16AWG
- **Conductor Stranding:** Solid
- **Conductor Nom. Diameter:** 0.051in (1.29mm)
- **Conductor Material:** Silvered Copper - SC
- **Insulation Material:** Polyethylene (Foam) - PE
- **Insulation Nom. Diameter:** 0.225in (5.72mm)
- **Outer Shield Layer 1 Material/Coverage%:** Tri-Laminate Tape/100%
- **Outer Shield Layer 2 Material/Coverage%:** Tinned Copper (TC) Braid/95%
- **Outer Shield Layer 3 Material/Coverage%:** Bi-Laminate Tape/100%
- **Outer Jacket Material:** Polyvinyl Chloride - PVC
- **Outer Jacket Nom. Diameter:** 0.320in (8.13mm)
- **Overall Cable Diameter:** 0.320in (8.13mm)
- **Return Loss:**
 - 5 - 1600 MHz 23 dB
 - 1600 - 4500 MHz 21 dB
 - 4500 - 12000 MHz 15 dB
- **Attenuation:**
 - 100 MHz 1.54 dB/100ft
 - 720 MHz 3.96 dB/100ft
 - 2250 MHz 7.25 dB/100ft
 - 12000 MHz 19.45 dB/100ft
- **Nom. Conductor DCR:** 4.0 Ohm/1000ft
- **Nom. Outer Shield DCR:** 1.8 Ohm/1000ft (5.9 Ohm/km)
- **Nom. Capacitance Cond-to-Shield:** 16.0 pF/ft (52.5 pF/m)
- **Nom. Characteristic Impedance:** 75 Ohm
- **Nom. Velocity of Prop%:** 85%
- **Voltage Rating:** 300 V (CMR, CMG)
- **Bend Radius:** 3.2in (81 mm)
- **Max Pull Tension:** 84 lbs (38 kg)
- **Temperature:** -4°F to 167°F (-20°C to +75°C)

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Specifications:

Amphenol Connectors:

- **Body Finish:** Nickel
- **Body Material:** Brass
- **Contact Finish:** Gold
- **Contact Material:**
 - BNC: Brass
 - HD-BNC: Phosphor Bronze
- **Frequency (Max GHz):**
 - BNC: 12
 - HD-BNC: 18
- **Impedance (Ohms):** 75
- **Insulator Material:** PTFE
- **Lifetime:** 500 Matings