

LAIRD RTBNC-4694F-XXX DATASHEET

The Laird RTBNC-4694F UHD BNC Cable Assembly is specifically designed for high-performance 12G-2K video applications. It features Neutrik rearTWIST UHD BNC connectors and Belden RG6 4694F cable, providing extended bandwidth. The innovative rear twist technology simplifies the insertion and removal of connectors, ensuring an easy interface with patch bays without the need for special removal tools. The cable's construction includes a solid bare copper conductor, gas-injected foam HDPE insulation, dual tinned copper braid shield, and a PVC jacket. Belden's certified max transmission distance: 12G Signal up to 184ft, 6G up to 284ft, 3G up to 426ft. Laird's certified max transmission distance: 125ft for 12G/4K.

** Laird certified lengths are defined as max transmission where signal integrity remains 100% functional without any CRC errors, your 12GSDI 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:

- Neutrik rearTWIST UHD BNC designed for UHD-data Transmissions
- Fully compatible with conventional BNC Chassis connectors
- Improved return loss values at high frequency
- Swiss Antraloy Plating
- Flexible 4K UHD Coax Cable
- Indoor Rated
- UL1685 (UL loading)
- Suitable applications SMPTE
2082-1 12 Gb/s UHDTV, SMPTE
2081-1 6 Gb/s UHDTV, SMPTE
424M 3 Gb/s HD-SDI 1080P



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Specifications:

- **Cable Type:** RG6
- **AWG:** 18
- **Conductor Stranding:** Solid
- **Number of Coax:** 1
- **Conductor Material:** Silvered Copper (SC)
- **Conductor Nom Diameter:** 0.040in (1.016mm)
- **Outer Jacket Material:** Polyvinyl Chloride (PVC)
- **Outer Jacket Nom Diameter:** 0.276in (7.010mm)
- **Insulation:** Gas Injected PE-Polyethylene (Foam)
- **Insulation Nom Diameter:** 0.180in (4.572 mm)
- **Outer Shield layer 1 Type:** Braid
- **Outer Shield layer 1 Material:** Tinned Copper (TC) 95% coverage
- **Outer Shield layer 2 Type:** Braid
- **Outer Shield layer 2 Material:** Tinned Copper (TC) 95% coverage
- **Outer Jacket Material:** Polyvinyl Chloride (PVC)
- **Outer Jacket Nom Diameter:** 0.276in (7.010mm)
- **Nom Impedance:** 75 Ohm
- **Nom Inductance:** 0.106 μ H/ft
- **Nom Capacitance Conductor Shield:** 15.9 pF/ft (52.2 pF/m)
- **Nom Velocity of Propagation:** 85%
- **Nom Delay:** 1.20 ns/ft
- **Nom Conductor DC resistance:** 6.4 Ohm/1000ft (21 Ohm/km)
- **Nom Outer Shield DC resistance:** 1.5 Ohm/1000ft (4.9 Ohm/km)
- **Return Loss:**
 - 5 MHz - 1600 MHz: 23 dB
 - 1600 MHz - 4500 MHz: 21 dB
 - 4500 MHz - 12000 MHz: 15 dB
- **Min Bend Radius:** 2.75in (69.9mm)
- **Max Pull Tension:** 80lbs (36kg)
- **Max Operating Voltage:** 300 V RMS
- **Operating Temperature:** -22°F to 167°F (-30°C To +75°C)
- **Weight:** 0.048lbs/ft

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Specifications:

Neutrik rearTWIST UHD BNC Connector:

- **Connection Type:** BNC
- **Shell:** Brass
- **Shell plating:** Antraloxy
- **Insertion Force:** <25 N
- **Lifetime:** >1000 Mating Cycles
- **Contacts:** Brass 0.2 μ m AuCo (center contact)
- **Contact Resistance Inner:** ≤ 3 m Ω
- **Contact Resistance outer:** ≤ 2 m Ω
- **Dielectric Strength:** 1.5 kVdc