

1694A Coax - Low Loss Serial Digital Coax



For more Information
please call

1-800-Belden1



General Description:

RG-6/U Type, 18 AWG solid .040" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

Usage (Overall)

Suitable Applications: SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 1 | 18 | Solid | BC - Bare Copper | .040 |

Total Number of Conductors: 1

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---|------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | .180 |

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---------|-------------------------|-------|--|--------------|
| 1 | Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100 |
| 2 | | Braid | TC - Tinned Copper | 95 |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Overall Cable

Overall Nominal Diameter: 0.274 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

Bulk Cable Weight: 41 lbs/1000 ft.

Max. Recommended Pulling Tension: 69 lbs.

Min. Bend Radius/Minor Axis: 2.750 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

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RG Type: 6/U

Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black only.

Suitability - Aerial: Yes - Black only, when supported by messenger wire.

Suitability - Burial: No

Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 1695A

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.106

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.2

Nominal Velocity of Propagation:

VP (%)

82

Nominal Delay:

Delay (ns/ft)

1.24

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

6.4

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.8

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 1.000 | 0.240 |
| 3.580 | 0.440 |
| 5.000 | 0.520 |
| 6.000 | 0.570 |
| 7.000 | 0.610 |
| 10.000 | 0.710 |
| 12.000 | 0.780 |
| 25.000 | 1.080 |
| 67.500 | 1.650 |
| 71.500 | 1.690 |
| 88.500 | 1.860 |
| 100.000 | 1.950 |
| 135.000 | 2.240 |
| 143.000 | 2.300 |
| 180.000 | 2.570 |
| 270.000 | 3.170 |
| 360.000 | 3.690 |
| 540.000 | 4.500 |
| 720.000 | 5.300 |
| 750.000 | 5.400 |
| 1000.000 | 6.300 |
| 1500.000 | 7.800 |
| 2000.000 | 9.200 |
| 2250.000 | 9.800 |
| 3000.000 | 11.500 |

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| | |
|----------|--------|
| 4500.000 | 14.500 |
| 6000.000 | 17.700 |

Max. Operating Voltage - UL:

| |
|----------------|
| Voltage |
| 300 V RMS |

Other Electrical Characteristic 1: TDR Impedance: 75 +/- 1.5 Ohms

Other Electrical Characteristic 2: Return Loss: Fixed bridge and termination.

Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5.000 | 1600.000 | 23.000 |
| 1600.000 | 4500.000 | 21.000 |
| 4500.000 | 6000.000 | 15.000 |

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 6 GHz.

Misc. Information (Overall)

Notes (Overall)

Notes: Also available in 4.5 GHz multi-coax bundled versions. See 7710A through 7713A.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------------|-------|--------------------------|
| 1694A N3UN1000 | 1,000 FT | 45.000 LB | GREEN, MIL | | #18 PE/GIFHDPE SH FR PVC |
| 1694A N3U1000 | 1,000 FT | 45.000 LB | GREEN, MIL | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A N3U5000 | 5,000 FT | 225.000 LB | GREEN, MIL | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0011000 | 1,000 FT | 45.000 LB | BROWN | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0015000 | 5,000 FT | 225.000 LB | BROWN | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0021000 | 1,000 FT | 45.000 LB | RED | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0025000 | 5,000 FT | 225.000 LB | RED | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0031000 | 1,000 FT | 45.000 LB | ORANGE | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 004N1000 | 1,000 FT | 45.000 LB | YELLOW | | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0041000 | 1,000 FT | 45.000 LB | YELLOW | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0061000 | 1,000 FT | 45.000 LB | BLUE, LIGHT | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0065000 | 5,000 FT | 225.000 LB | BLUE, LIGHT | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0071000 | 1,000 FT | 45.000 LB | VIOLET | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0075000 | 5,000 FT | 225.000 LB | VIOLET | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0081000 | 1,000 FT | 45.000 LB | GRAY | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0085000 | 5,000 FT | 225.000 LB | GRAY | C N | #18 PE/GIFHDPE SH FR PVC |
| 1694A 009N1000 | 1,000 FT | 45.000 LB | WHITE | | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0091000 | 1,000 FT | 45.000 LB | WHITE | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 010N1000 | 1,000 FT | 45.000 LB | BLACK | | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0101000 | 1,000 FT | 45.000 LB | BLACK | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 010500 | 500 FT | 22.500 LB | BLACK | C | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0105000 | 5,000 FT | 225.000 LB | BLACK | C N | #18 PE/GIFHDPE SH FR PVC |

Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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