



For more Information
please call

1-800-Belden1



General Description:

RG-7 Type 16 AWG solid 0.051" bare copper conductor, gas-injected foamed high-density polyethylene insulation, Duofoil® + tinned copper braid shield (95% coverage) plus Beldfoil® with shorting fold, 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. (mm) |
|--------|-----|-----------|--------------------|-----------|
| 1 | 16 | Solid | BC - Bare Copper | 1.295 |

Total Number of Conductors: 1

Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|---|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 5.715 |

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---------|------------------------------|-------|--|--------------|
| 1 | Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100.000 |
| 2 | | Braid | TC - Tinned Copper | 95.000 |
| 3 | Beldfoil® with shorting fold | Tape | Polyester Tape-Aluminum Foil | 100.000 |

Outer Jacket

Outer Jacket Material:

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

Overall Cable

Overall Nominal Diameter: 8.128 mm

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 87.804 Kg/Km

Max. Recommended Pulling Tension: 493.750 N

Min. Bend Radius/Minor Axis: 82.550 mm

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 |
| Series Type: | Series 7 |

Flame Test

| | |
|-----------------|-----------------------|
| UL Flame Test: | UL1666 Vertical Shaft |
| CSA Flame Test: | FT4 |

Suitability

| | |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

| |
|-----------------|
| Impedance (Ohm) |
| 75 |

Nom. Inductance:

| |
|-------------------|
| Inductance (µH/m) |
| 0.299 |

Nom. Capacitance Conductor to Shield:

| |
|--------------------|
| Capacitance (pF/m) |
| 52.824 |

Nominal Velocity of Propagation:

| |
|--------|
| VP (%) |
| 84.000 |

Nominal Delay:

| |
|--------------|
| Delay (ns/m) |
| 3.970 |

Nom. Conductor DC Resistance:

| |
|---------------------|
| DCR @ 20°C (Ohm/km) |
| 13.124 |

Nominal Outer Shield DC Resistance:

| |
|---------------------|
| DCR @ 20°C (Ohm/km) |
| 6.234 |

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1.000 | 0.558 |
| 3.580 | 0.984 |
| 5.000 | 1.148 |
| 6.000 | 1.247 |
| 7.000 | 1.312 |
| 10.000 | 1.575 |
| 12.000 | 1.706 |
| 25.000 | 2.428 |
| 55.000 | 3.543 |
| 67.500 | 3.937 |
| 71.500 | 4.068 |
| 88.500 | 4.495 |
| 100.000 | 4.790 |
| 135.000 | 5.578 |
| 143.000 | 5.742 |
| 180.000 | 6.464 |
| 270.000 | 7.973 |
| 360.000 | 9.285 |
| 540.000 | 11.812 |
| 720.000 | 13.780 |
| 750.000 | 14.108 |
| 1000.000 | 16.405 |
| 1500.000 | 20.342 |
| 2000.000 | 24.279 |
| 2250.000 | 25.592 |
| 3000.000 | 30.185 |
| 4500.000 | 38.388 |
| 6000.000 | 45.179 |

METRIC MEASUREMENT VERSION

1794A Coax - Low Loss Serial Digital Coax

Max. Operating Voltage - UL:

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

Other Electrical Characteristic 1: TDR Impedance: 75 +/- 3 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#37; Sweep tested 5 MHz to 6 GHz.

Notes (Overall)

Notes: Also available in 4.5 GHz multi-coax bundled version. See 2177A.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------------|-------|----------------------------|
| 1794A N3U1000 | 1,000 FT | 59.000 LB | GREEN, MIL | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0011000 | 1,000 FT | 59.000 LB | BROWN | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0021000 | 1,000 FT | 59.000 LB | RED | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0031000 | 1,000 FT | 59.000 LB | ORANGE | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0041000 | 1,000 FT | 59.000 LB | YELLOW | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0061000 | 1,000 FT | 59.000 LB | BLUE, LIGHT | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0071000 | 1,000 FT | 59.000 LB | VIOLET | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0081000 | 1,000 FT | 59.000 LB | GRAY | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0091000 | 1,000 FT | 59.000 LB | WHITE | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 010N1000 | 1,000 FT | 60.000 LB | BLACK | C | #16 LDPE/GIFHDLDP SH FRPVC |
| 1794A 0101000 | 1,000 FT | 59.000 LB | BLACK | C | #16 LDPE/GIFHDLDP SH FRPVC |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 4 Revision Date: 06-17-2016

© 2016 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).