

4794R Coax - 4K Ultra-High-Definition Coax Cable for 12G-SDI

For more Information
please call

1-800-Belden1



General Description:

12 GHz, 4K UHD Precision Video Cable, 75 Ohm, 16 AWG solid 0.051" silver-plated copper conductor, gas-injected foamed high-density polyethylene insulation, Duofoil® bonded to the core + tinned copper braid shield (95% coverage) plus Beldfoil® with shorting fold, PVC jacket.

Usage (Overall)

Suitable Applications: SMPTE 2082-1 12 Gb/s UHDTV, 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	SPC - Silver Plated 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 (%)	Description
1	Bonded Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100.000	Bonded to insulation
2		Braid	TC - Tinned Copper	95.000	
3	Bonded Beldfoil® with shorting fold	Tape	Polyester Tape-Aluminum Foil	100.000	Bonded to jacket

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

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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
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
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Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.299

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
50.856

Nominal Velocity of Propagation:

VP (%)
85.000

Nominal Delay:

Delay (ns/m)
3.937

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	0.853
3.580	1.411
5.000	1.641
6.000	1.706
7.000	1.805

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10.000	2.067
12.000	2.165
25.000	2.887
55.000	3.970
67.500	4.298
71.500	4.397
88.500	4.823
100.000	5.053
135.000	5.742
143.000	5.873
180.000	6.496
270.000	7.874
360.000	9.056
540.000	11.188
720.000	12.993
750.000	13.288
1000.000	15.421
1500.000	19.128
2000.000	22.311
2250.000	23.787
3000.000	27.823
4500.000	34.975
6000.000	40.914
12000.000	63.815

Max. Operating Voltage - UL:

Voltage
300 V RMS

Other Electrical Characteristic 1:

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	12000.000	15.000

Sweep Test

Sweep Testing:

Sweep tested 5 MHz to 12 GHz.

Notes (Overall)

Notes: Print legend includes sequential footage marks.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
4794R N3U1000	1,000 FT	60.000 LB	GREEN, MIL		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0021000	1,000 FT	60.000 LB	RED		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0031000	1,000 FT	60.000 LB	ORANGE		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0041000	1,000 FT	60.000 LB	YELLOW		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0061000	1,000 FT	60.000 LB	BLUE, LIGHT		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0071000	1,000 FT	60.000 LB	VIOLET		#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0091000	1,000 FT	60.000 LB	WHITE	C	#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0101000	1,000 FT	60.000 LB	BLACK	C	#16 LDPE/GIFHDL DPE SH FRPVC
4794R 0102500	2,500 FT	145.000 LB	BLACK	C Z	#16 LDPE/GIFHDL DPE SH FRPVC

Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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