Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

4794R Coax - Low Loss Serial Digital Coax

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. (in.)
1	16	Solid	SPC - Silver Plated Copper	0.051

Total Number of Conductors:	1

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	0.225

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	
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:	0.320 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
Bulk Cable Weight:	59 lbs/1000 ft.
Max. Recommended Pulling Tension:	111 lbs.
Min. Bend Radius/Minor Axis:	3.250 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
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/ft)
0.091

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.100

Nominal Velocity of Propagation:

VP (%)
84.000

Nominal Delay:

Delay (ns/ft)
1.210

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
4.000

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
1.900

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.170
3.580	0.300
5.000	0.350
6.000	0.380
7.000	0.400
10.000	0.480
12.000	0.520
25.000	0.740
55.000	1.080
67.500	1.200
71.500	1.240
88.500	1.370
100.000	1.460
135.000	1.700
143.000	1.750
180.000	1.970
270.000	2.430
360.000	2.830
540.000	3.500
720.000	4.090
750.000	4.180
1000.000	4.890
1500.000	6.100
2000.000	7.200
2250.000	7.690
3000.000	9.080
4500.000	10.970
6000.000	13.000

12000.000	19.600

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	12000.000	15.000

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 12 GHz.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
4794R 0101000	1,000 FT	60.000 LB	BLACK	C	#16 LDPE/GIFHDLDPE SH FRPVC
4794R 0102500	2,500 FT	145.000 LB	BLACK	C Z	#16 LDPE/GIFHDLDPE 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.

Revision Number: 1 Revision Date: 07-15-2016