

4694R 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 Coax, RG-6/U Type, 75 Ohm, 18 AWG solid .040" silver plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to core + tinned copper braid shield (95% coverage), 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	18	Solid	SPC - Silver Plated Copper	1.016

Total Number of Conductors: 1

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	4.572

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100.000
2		Braid	TC - Tinned Copper	95.000

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 6.960 mm

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 61.016 Kg/Km

Max. Recommended Pulling Tension: 306.926 N

Min. Bend Radius/Minor Axis: 69.850 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

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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
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
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Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.347786

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
52.168

Nominal Velocity of Propagation:

VP (%)
84.500

Nominal Delay:

Delay (ns/m)
3.937

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
20.9984

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
9.187

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1.000	0.755
3.580	1.444
5.000	1.673
6.000	1.837
7.000	1.936
10.000	2.297

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12.000	2.461
25.000	3.412
67.500	5.184
71.500	5.315
88.500	5.840
100.000	6.201
135.000	6.890
143.000	7.087
180.000	8.006
270.000	9.745
360.000	11.319
540.000	14.108
720.000	16.405
750.000	16.733
1000.000	19.358
1500.000	23.951
2000.000	27.889
2250.000	29.857
3000.000	34.779
4500.000	43.309
6000.000	50.856
12000.000	75.463

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
4694R N3U1000	1,000 FT	44.000 LB	GREEN, MIL		#18 PE/GIFHLDPE SH FRPVC
4694R N3U10000	10,000 FT	450.000 LB	GREEN, MIL		#18 PE/GIFHLDPE SH FRPVC
4694R N3U5000	5,000 FT	215.000 LB	GREEN, MIL		#18 PE/GIFHLDPE SH FRPVC
4694R 0021000	1,000 FT	44.000 LB	RED		#18 PE/GIFHLDPE SH FRPVC
4694R 00210000	10,000 FT	450.000 LB	RED		#18 PE/GIFHLDPE SH FRPVC
4694R 0025000	5,000 FT	215.000 LB	RED		#18 PE/GIFHLDPE SH FRPVC
4694R 0031000	1,000 FT	44.000 LB	ORANGE		#18 PE/GIFHLDPE SH FRPVC
4694R 00310000	10,000 FT	450.000 LB	ORANGE		#18 PE/GIFHLDPE SH FRPVC
4694R 0035000	5,000 FT	215.000 LB	ORANGE		#18 PE/GIFHLDPE SH FRPVC
4694R 0041000	1,000 FT	44.000 LB	YELLOW		#18 PE/GIFHLDPE SH FRPVC
4694R 00410000	10,000 FT	440.000 LB	YELLOW		#18 PE/GIFHLDPE SH FRPVC
4694R 0045000	5,000 FT	215.000 LB	YELLOW		#18 PE/GIFHLDPE SH FRPVC
4694R 0061000	1,000 FT	44.000 LB	BLUE, LIGHT		#18 PE/GIFHLDPE SH FRPVC
4694R 00610000	10,000 FT	450.000 LB	BLUE, LIGHT		#18 PE/GIFHLDPE SH FRPVC
4694R 0065000	5,000 FT	215.000 LB	BLUE, LIGHT		#18 PE/GIFHLDPE SH FRPVC
4694R 0071000	1,000 FT	44.000 LB	VIOLET		#18 PE/GIFHLDPE SH FRPVC
4694R 00710000	10,000 FT	450.000 LB	VIOLET		#18 PE/GIFHLDPE SH FRPVC
4694R 0075000	5,000 FT	215.000 LB	VIOLET		#18 PE/GIFHLDPE SH FRPVC

METRIC MEASUREMENT VERSION

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4694R 0091000	1,000 FT	44.000 LB	WHITE	C	#18 PE/GIFHDLDPPE SH FRPVC
4694R 0095000	5,000 FT	215.000 LB	WHITE		#18 PE/GIFHDLDPPE SH FRPVC
4694R 0101000	1,000 FT	44.000 LB	BLACK		#18 PE/GIFHDLDPPE SH FRPVC
4694R 01010000	10,000 FT	450.000 LB	BLACK		#18 PE/GIFHDLDPPE SH FRPVC
4694R 0105000	5,000 FT	215.000 LB	BLACK		#18 PE/GIFHDLDPPE SH FRPVC

Notes:

C = CRATE REEL PUT-UP.

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