

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. (mm)
1	18	Solid	BC - Bare 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	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: 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

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

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EU Directive 2002/95/EC (RoHS):	Yes
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EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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RG Type:	6/U
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Flame Test

UL Flame Test:	UL1666 Vertical Shaft
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CSA Flame Test:	FT4
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Suitability

Suitability - Indoor:	Yes
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Suitability - Outdoor:	Yes - Black only.
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Suitability - Aerial:	Yes - Black only, when supported by messenger wire.
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Suitability - Burial:	No
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Plenum Number:	1695A
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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)

53.1522

Nominal Velocity of Propagation:

VP (%)

82

Nominal Delay:

Delay (ns/m)

4.06844

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

20.9984

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

9.1868

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
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1.000	0.787
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3.580	1.444
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5.000	1.706
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6.000	1.870
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7.000	2.001
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10.000	2.330
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12.000	2.559
25.000	3.543
67.500	5.414
71.500	5.545
88.500	6.103
100.000	6.398
135.000	7.349
143.000	7.546
180.000	8.432
270.000	10.401
360.000	12.107
540.000	14.765
720.000	17.389
750.000	17.717
1000.000	20.670
1500.000	25.592
2000.000	30.185
2250.000	32.154
3000.000	37.732
4500.000	47.575
6000.000	58.074

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&#37; Sweep tested 5 MHz to 6 GHz.

Misc. Information (Overall)

Notes (Overall)

Notes: Print legend includes sequential footage marks. 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 N3U10000	10,000 FT	480.000 LB	GREEN, MIL		#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 002Z1000	1,000 FT	46.000 LB	RED		#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 003Z1000	1,000 FT	46.000 LB	ORANGE		#18 PE/GIFHDPE SH FR PVC
1694A 0031000	1,000 FT	45.000 LB	ORANGE	C	#18 PE/GIFHDPE SH FR PVC
1694A 00310000	10,000 FT	480.000 LB	ORANGE		#18 PE/GIFHDPE SH FR PVC
1694A 004N1000	1,000 FT	45.000 LB	YELLOW		#18 PE/GIFHDPE SH FR PVC
1694A 004Z1000	1,000 FT	46.000 LB	YELLOW		#18 PE/GIFHDPE SH FR PVC
1694A 0041000	1,000 FT	45.000 LB	YELLOW	C	#18 PE/GIFHDPE SH FR PVC

METRIC MEASUREMENT VERSION

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1694A 006Z1000	1,000 FT	46.000 LB	BLUE, LIGHT		#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 007N1000	1,000 FT	44.000 LB	VIOLET		#18 PE/GIFHDPE SH FR PVC
1694A 007Z1000	1,000 FT	46.000 LB	VIOLET		#18 PE/GIFHDPE SH FR PVC
1694A 0071000	1,000 FT	45.000 LB	VIOLET	C	#18 PE/GIFHDPE SH FR PVC
1694A 00710000	10,000 FT	480.000 LB	VIOLET		#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 00810000	10,000 FT	480.000 LB	GRAY		#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 009Z1000	1,000 FT	46.000 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 00910000	10,000 FT	480.000 LB	WHITE		#18 PE/GIFHDPE SH FR PVC
1694A 010N1000	1,000 FT	45.000 LB	BLACK		#18 PE/GIFHDPE SH FR PVC
1694A 010Z1000	1,000 FT	46.000 LB	BLACK		#18 PE/GIFHDPE SH FR PVC
1694A 010Z500	500 FT	24.500 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 01010000	10,000 FT	480.000 LB	BLACK		#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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