

1794A Coax - Low Loss Serial Digital Coax



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. (in.)
1	16	Solid	BC - Bare 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 (%)
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:

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

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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	3.600
720.000	4.200
750.000	4.300
1000.000	5.000
1500.000	6.200
2000.000	7.400
2250.000	7.800
3000.000	9.200
4500.000	11.700
6000.000	13.770

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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% 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		#16 LDPE/GIFHDLDP SH FRPVC
1794A 010I1000	1,000 FT	59.000 LB	BLACK	C	#16 LDPE/GIFHDLDP SH FRPVC

Notes:

C = CRATE REEL PUT-UP.

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