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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 UHD TV, SMPTE 424M 3 Gb/s HD-SDI 1080p

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	16	Solid	BC - Bare 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 (%)
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: 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

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
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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)
52.824

Nominal Velocity of Propagation:

VP (%)
84.000

Nominal Delay:

Delay (ns/m)
3.970

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	0.558
3.580	0.984
5.000	1.148
6.000	1.247
7.000	1.312
10.000	1.575
12.000	1.706
25.000	2.428
55.000	3.543
67.500	3.937

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71.500	4.068
88.500	4.495
100.000	4.790
135.000	5.578
143.000	5.742
180.000	6.464
270.000	7.973
360.000	9.285
540.000	11.812
720.000	13.780
750.000	14.108
1000.000	16.405
1500.000	20.342
2000.000	24.279
2250.000	25.592
3000.000	30.185
4500.000	38.388
6000.000	45.179

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#37; 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 0101000	1,000 FT	59.000 LB	BLACK	C	#16 LDPE/GIFHDLDP SH FRPVC
1794A 0102500	2,500 FT	157.500 LB	BLACK		#16 LDPE/GIFHDLDP SH FRPVC

Notes:

C = CRATE REEL PUT-UP.

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1794A Coax - Low Loss Serial Digital Coax

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