BELDEN
SENDING ALL THE RIGHT SIGNALS

Part Number: 1794A



Serial Digital Coax, RG7 Type, #16 Solid BC, Foil + 95% TC braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, 16 AWG solid bare copper conductor, foam HDPE core, Beldfoil, +95% tinned copper braid, Duofoil, PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor/Outdoor
Suitable Applications:	SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
16	Solid	BC - Bare Copper	0.051 in	1

Conductor Count:	1

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.225 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester/Aluminum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		95 %
Tape	3	Aluminum/Polyester	Beldfoil® with shorting fold	100 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.32 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
4.0 Ohm/1000ft	1.9 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.1 pF/ft

Inductance

Nominal Inductance
0.091 µH/ft

Impedance

Nominal Characteristic Impedance
75 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5-1600 MHz	23 dB
1600-4500 MHz	21 dB
4500-6000 MHz	15 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.17 dB/100ft
3.58 MHz	0.30 dB/100ft
5 MHz	0.35 dB/100ft
6 MHz	0.38 dB/100ft
7 MHz	0.40 dB/100ft
10 MHz	0.48 dB/100ft
12 MHz	0.52 dB/100ft
25 MHz	0.74 dB/100ft
55 MHz	1.08 dB/100ft
67.5 MHz	1.20 dB/100ft
71.5 MHz	1.24 dB/100ft
88.5 MHz	1.37 dB/100ft
100 MHz	1.46 dB/100ft
135 MHz	1.70 dB/100ft
143 MHz	1.75 dB/100ft
180 MHz	1.97 dB/100ft
270 MHz	2.43 dB/100ft
360 MHz	2.83 dB/100ft
540 MHz	3.60 dB/100ft
720 MHz	4.20 dB/100ft
750 MHz	4.30 dB/100ft
1000 MHz	5.00 dB/100ft
1500 MHz	6.20 dB/100ft
2000 MHz	7.40 dB/100ft
2250 MHz	7.80 dB/100ft
3000 MHz	9.20 dB/100ft
4500 MHz	11.70 dB/100ft
6000 MHz	13.77 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.21 ns/ft	84 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	TDR Impedance: 75 +/- 3 Ohms
Other Electrical Characteristic 2:	Return Loss: Fixed bridge and termination

Temperature Range

Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	59 lbs/1000ft
Max Recommended Pulling Tension:	111 lbs
Min Bend Radius/Minor Axis:	3.25 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca

RG Type:	7/U Type
Series Type:	Series 7

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	UPC	Length	Footnote
1794A 0101000	Black	612825357582	1,000 ft	C
1794A 010N1000	Black		1,000 ft	
1794A 0102500	Black	612825438212	2,500 ft	
1794A 0061000	Blue, Light	612825358619	1,000 ft	C
1794A 0011000	Brown	612825357513	1,000 ft	C
1794A 0081000	Gray	612825357568	1,000 ft	C
1794A N3U1000	Green, Mil	612825357506	1,000 ft	C
1794A 0031000	Orange	612825357537	1,000 ft	C
1794A 0021000	Red	612825357520	1,000 ft	C
1794A 0071000	Violet	612825357551	1,000 ft	C
1794A 0091000	White	612825357575	1,000 ft	C
1794A 0041000	Yellow	612825357544	1,000 ft	C

Footnote:	C - CRATE REEL PUT-UP.

Product Notes

Notes:	Also availible in multi-coax bundled version. See 2177A. Print legend includes sequential footage marks.

History

Update and Revision:	Revision Number: 0.268 Revision Date: 08-22-2019

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