



**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

<b>Suitable Applications:</b>	SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p
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## Construction and Dimensions

### Conductor:

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

<b>Total Number of Conductors:</b>	1
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### Insulation:

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

### Outershield 1:

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

### Outerjacket 1:

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.32 in

## Electrical Characteristics

### Conductor DCR:

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

**Capacitance:**

Nom. Capacitance Conductor to Shield
16.1 pF/ft

Other Electrical Characteristic 1:	Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 3 Ohms
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Other Electrical Characteristic 2:	Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a 75 Ohm fixed bridge and termination.
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Sweep Testing:	100% Sweep tested 5 MHz to 6 GHz.
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**Impedance:**

Nominal Characteristic Impedance
75 Ohm

**High Frequency (Nominal/Typical):**

Frequency [MHz]	Norm. Insertion Loss
1 MHz	0.17 dB/100ft
3.58 MHz	0.3 dB/100ft
5 MHz	0.35 dB/100ft
6 MHz	0.38 dB/100ft
7 MHz	0.4 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	1.2 dB/100ft
71.5 MHz	1.24 dB/100ft
88.5 MHz	1.37 dB/100ft
100 MHz	1.46 dB/100ft
135 MHz	1.7 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	3.5 dB/100ft
720 MHz	4.09 dB/100ft
750 MHz	4.18 dB/100ft
1000 MHz	4.89 dB/100ft
1500 MHz	6.1 dB/100ft
2000 MHz	7.2 dB/100ft
2250 MHz	7.69 dB/100ft
3000 MHz	9.08 dB/100ft
4500 MHz	11.53 dB/100ft
6000 MHz	13.77 dB/100ft

**Delay:**

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

**High Freq:**

Min. RL (Return Loss) [dB]
23 dB
21 dB

**Inductance:**

#### Nominal Inductance

0.091  $\mu$ H/ft

#### Voltage:

#### UL Voltage Rating

300V RMS V

#### Use

Suitability - Indoor:

Yes

Max Recommended Pulling Tension:

111 lbs

#### Safety

CSA Flammability:

FT4

UL Flammability:

UL1666 Vertical Shaft

#### Temperature Range

Operating Temp Range:

-30°C To +75°C °C

#### Mechanical Characteristics

Min Bend Radius/Minor Axis:

3.25 in

#### Part Number

Plenum (Y/N):

No

Suggested Connectors:

AMP 221185-1 Dual Crimp Gold Pin BNC (75 Ohms); Amphenol 31-70000 Dual Crimp Gold Pin BNC (75 Ohms); Kings 2065-10-9 Dual Crimp Gold Pin (75 Ohms); Trompeter UPL220-20 Dual Crimp Gold Pin BNC (75 Ohm); ADC BNC-1694D Dual Crimp Gold Pin BNC (75 Ohm)

#### Standards

CA Prop 65 (CJ for Wire & Cable):

Yes

CEC/C(UL) Specification:

CMG

MII Order #39 (China RoHS):

Yes

NEC/(UL) Specification:

CMR

Series Type:

Series 7

EU Directive Compliance:

EU Directive 2003/11/EC (BFR)

EU CE Mark:

Yes

## Product Variants

Part Number	Color	Put-Up Type	Length
1794A	BROWN	Reel	1000 ft
1794A 0011000	BROWN	Reel	1000 ft
1794A	RED	Reel	1000 ft
1794A 0021000	RED	Reel	1000 ft
1794A	ORANGE	Reel	1000 ft
1794A 0031000	ORANGE	Reel	1000 ft
1794A	YELLOW	Reel	1000 ft
1794A 0041000	YELLOW	Reel	1000 ft
1794A	BLUE, LIGHT	Reel	1000 ft
1794A	BLUE, LIGHT	Reel	305 m
1794A 0061000	BLUE, LIGHT	Reel	1000 ft
1794A	VIOLET	Reel	1000 ft
1794A	PURPLE	Reel	305 m
1794A 0071000	VIOLET	Reel	1000 ft
1794A	GRAY	Reel	1000 ft
1794A	GRAY	Reel	305 m
1794A 0081000	GRAY	Reel	1000 ft
1794A	WHITE	Reel	1000 ft
1794A	WHITE	Reel	305 m
1794A 0091000	WHITE	Reel	1000 ft
1794A	BLACK	Reel	1000 ft
1794A	BLACK	Reel	305 m
1794A 0101000	BLACK	Reel	1000 ft
1794A	BLACK	Reel	762 m
1794A			
1794A			
1794A	GREEN, MIL	Reel	1000 ft
1794A	MIL GREEN	Reel	305 m
1794A N3U1000	GREEN, MIL	Reel	1000 ft
1794A			

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