



Part Number: 1694A

Serial Digital Coax, RG6, #18 Solid BC, Duofoil® + 95% TC braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, RG6 18 AWG solid bare copper conductor, foam HDPE core, Duobond® +95% tinned copper braid, PVC jacket

Technical Specifications

Product Overview

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

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
18	Solid	BC - Bare Copper	0.04 in	1

Total Number of Conductors:	1
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Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.18 in

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.274 in

Electrical Characteristics

Capacitance

Nom. Capacitance Conductor to Shield
16.2 pF/ft

Shielding:	Overall Foil + Braid
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Construction and Dimensions

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
6.4 Ohm/1000ft	2.8 Ohm/1000ft	2.8 Ohm/1000ft

Impedance

Nominal Characteristic Impedance
75 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.24 dB/100ft
3.58 MHz	0.44 dB/100ft
5 MHz	0.52 dB/100ft
6 MHz	0.57 dB/100ft
7 MHz	0.61 dB/100ft
10 MHz	0.71 dB/100ft
12 MHz	0.78 dB/100ft
25 MHz	1.08 dB/100ft
67.5 MHz	1.65 dB/100ft
71.5 MHz	1.69 dB/100ft
88.5 MHz	1.86 dB/100ft
100 MHz	1.95 dB/100ft
135 MHz	2.24 dB/100ft
143 MHz	2.3 dB/100ft
180 MHz	2.57 dB/100ft
270 MHz	3.17 dB/100ft
360 MHz	3.69 dB/100ft
540 MHz	4.5 dB/100ft
720 MHz	5.3 dB/100ft
750 MHz	5.4 dB/100ft
1000 MHz	6.3 dB/100ft
1500 MHz	7.8 dB/100ft
2000 MHz	9.2 dB/100ft
2250 MHz	9.8 dB/100ft
3000 MHz	11.5 dB/100ft
4500 MHz	14.5 dB/100ft
6000 MHz	17.7 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82 %

Inductance

Nominal Inductance
0.106 μ H/ft

Voltage

UL Voltage Rating
300V RMS

UV Resistance:	Yes
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Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CMG
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 Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CPR Euroclass:	Eca

CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Standards

NEC/(UL) Specification:	CMR
RG Type:	RG-6/U Type

Flame Test

CSA Flammability:	FT4
UL Flammability:	UL1666 Vertical Shaft

Safety

UL Voltage Rating:	300 V RMS
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Suitability

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

Mechanical Characteristics

Operating Temp Range:	-30°C To +75°C
Bulk Cable Weight:	41(lbs/1000ft)
Max Recommended Pulling Tension:	69(lbs)
Min Bend Radius/Minor Axis:	2.75(in)

Temperature Range

UL Temp Rating:	75°C
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Plenum/Non-Plenum

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

Part Number

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)
Related Parts:	1694ABHD3

History

Variants

Item #	Color
1694A 004N1000	
1694A 009N1000	
1694A 010N1000	
1694A N3UN1000	
1694R 0021000	
1694A.001000	BLACK
1694A.001372	BLACK
1694A.00152	BLACK
1694A.00305	BLACK

1694A.00500	BLACK
1694A 0101000	BLACK
1694A 010500	BLACK
1694A 0105000	BLACK
1694A 010N1000	BLACK
1694A 0061000	BLUE, LIGHT
1694A 0065000	BLUE, LIGHT
1694A.051372	BLUE, RAL 5015
1694A.05305	BLUE, RAL 5015
1694A 0011000	BROWN
1694A 0015000	BROWN
1694A.09500	CREAM
1694A 0081000	GRAY
1694A 0085000	GRAY
1694A.081372	GRAY, SLATE
1694A.08305	GRAY, SLATE
1694A.061219	GREEN
1694A.061372	GREEN
1694A.06152	GREEN
1694A.06305	GREEN
1694A.064000	GREEN
1694A N3U1000	GREEN, MIL
1694A N3U5000	GREEN, MIL
1694A N3UN1000	GREEN, MIL
1694A 0031000	ORANGE
1694A.031372	ORANGE, RAL 2003
1694A.03305	ORANGE, RAL 2003
1694A 0021000	RED
1694A 0025000	RED
1694A.011372	RED, RAL 3000
1694A.01305	RED, RAL 3000
1694A.021372	VIOLET
1694A.02305	VIOLET
1694A 0071000	VIOLET
1694A 0075000	VIOLET
1694A.021000	VIOLET
1694A 007N1000	VIOLET
1694A 007N1000	VIOLET
1694A.071372	WHITE
1694A.07305	WHITE
1694A 0091000	WHITE
1694A 009N1000	WHITE
1694A 0041000	YELLOW
1694A 004N1000	YELLOW
1694A.041372	YELLOW, RAL 1021
1694A.04305	YELLOW, RAL 1021

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