



Product: [1694A](#)

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

Product Description

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

Technical Specifications

Product Overview

Suitable Applications:	SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p
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Physical Characteristics (Overall)

Conductor

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

Conductor Count:	1
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Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.18 in

Insulation, Table Note:	Gas Injected
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Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		95.0 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.274 in

Electrical Characteristics

Conductor DCR

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

Capacitance

Nom. Capacitance Conductor to Shield
16.2 pF/ft

Inductance

Nominal Inductance
0.106 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	0.24 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 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination
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Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	41 lbs/1000ft
Max Recommended Pulling Tension:	69 lbs
Min Bend Radius/Minor Axis:	2.75 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca
RG Type:	6/U Type

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
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
MII Order #39 (China RoHS):	Yes

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

Flammability, LSOH, 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
Plenum Number:	1695A

Part Number

Related Parts:	1694ABHD1, 1694ABHD3, 1694ABHDL
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Variants

Item #	Color	Putup Type	Length	UPC/EAN
1694A.00152	Black	Reel	152 m	8719605003317
1694A.00305	Black	Reel	305 m	8719605003324
1694A 010500	Black	Reel	500 ft	612825358169
1694A 010Z500	Black	Reel/Tuff Box	500 ft	612825434726
1694A.00500	Black	Reel	500 m	8719605003331
1694A 0101000	Black	Reel	1,000 ft	612825358190
1694A 010N1000	Black	Reel w/Small Barrel	1,000 ft	
1694A 010Z1000	Black	Reel/Tuff Box	1,000 ft	612825434702
1694A.001000	Black	Reel	1,000 m	8719605003294
1694A.001372	Black	Reel	1,372 m	8719605003300
1694A 0105000	Black	Reel	5,000 ft	612825358183
1694A 01010000	Black	Reel	10,000 ft	612825435631
1694A.05305	Blue	Reel	305 m	8719605003447
1694A.051372	Blue	Reel	1,372 m	8719605003430
1694A 0061000	Blue, Light	Reel	1,000 ft	612825358220
1694A 006Z1000	Blue, Light	Reel/Tuff Box	1,000 ft	612825434597
1694A 0065000	Blue, Light	Reel	5,000 ft	612825356189
1694A 00610000	Blue, Light	Reel	10,000 ft	612825440352
1694A 0011000	Brown	Reel	1,000 ft	612825358268
1694A 0015000	Brown	Reel	5,000 ft	612825356240
1694A 00110000	Brown	Reel	10,000 ft	612825440369
1694A.09500	Cream	Reel	500 m	8719605003546
1694A 0081000	Gray	Reel	1,000 ft	612825356165
1694A 0085000	Gray	Reel	5,000 ft	612825356158
1694A 00810000	Gray	Reel	10,000 ft	612825435617
1694A.08305	Gray, Slate	Reel	305 m	8719605003539

1694A.081372	Gray, Slate	Reel	1,372 m	8719605003522
1694A.06152	Green	Reel	152 m	8719605003478
1694A.06305	Green	Reel	305 m	8719605003485
1694A.061219	Green	Reel	1,219 m	8719605003454
1694A.061372	Green	Reel	1,372 m	8719605003461
1694A.064000	Green	Reel	4,000 m	8719605003492
1694A N3U1000	Green, Mil	Reel	1,000 ft	612825358275
1694A N3UN1000	Green, Mil	Reel w/Small Barrel	1,000 ft	
1694A N3U5000	Green, Mil	Reel	5,000 ft	612825356257
1694A N3U10000	Green, Mil	Reel	10,000 ft	612825435648
1694A.03305	Orange	Reel	305 m	8719605003409
1694A 0031000	Orange	Reel	1,000 ft	612825358251
1694A 003Z1000	Orange	ReelTuff Box	1,000 ft	612825434535
1694A.031372	Orange	Reel	1,372 m	8719605003393
1694A 00310000	Orange	Reel	10,000 ft	612825435655
1694A.01305	Red	Reel	305 m	8719605003355
1694A 0021000	Red	Reel	1,000 ft	612825358244
1694A 002Z1000	Red	ReelTuff Box	1,000 ft	612825434443
1694A.011372	Red	Reel	1,372 m	8719605003348
1694A 0025000	Red	Reel	5,000 ft	612825356264
1694A 00210000	Red	Reel	10,000 ft	612825440376
1694A.02305	Violet	Reel	305 m	8719605003386
1694A 0071000	Violet	Reel	1,000 ft	612825358213
1694A 007N1000	Violet	Reel w/Small Barrel	1,000 ft	612825366966
1694A 007Z1000	Violet	ReelTuff Box	1,000 ft	612825434665
1694A.021000	Violet	Reel	1,000 m	8719605003362
1694A.021372	Violet	Reel	1,372 m	8719605003379
1694A 0075000	Violet	Reel	5,000 ft	612825356172
1694A 00710000	Violet	Reel	10,000 ft	612825435303
1694A.07305	White	Reel	305 m	8719605003515
1694A 0091000	White	Reel	1,000 ft	612825358206
1694A 009N1000	White	Reel w/Small Barrel	1,000 ft	
1694A 009Z1000	White	ReelTuff Box	1,000 ft	612825434672
1694A.071372	White	Reel	1,372 m	8719605003508
1694A 00910000	White	Reel	10,000 ft	612825435624
1694A.04305	Yellow	Reel	305 m	8719605003423
1694A 0041000	Yellow	Reel	1,000 ft	612825358237
1694A 004N1000	Yellow	Reel w/Small Barrel	1,000 ft	
1694A 004Z1000	Yellow	ReelTuff Box	1,000 ft	612825434542
1694A.041372	Yellow	Reel	1,372 m	8719605003416
1694A 00410000	Yellow	Reel	10,000 ft	612825440383

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

History

Update and Revision:	Revision Number: 0.338 Revision Date: 04-28-2020
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