



Product: [1505A](#) 

Serial Digital Coax, RG59, #20 Solid BC, Foil + 95% TC Braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, RG59 20 AWG solid bare copper conductor, foam HDPE core, Duofoil®+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
20	Solid	BC - Bare Copper	0.032 in	1

Conductor Count:	1
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Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.145 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 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.233 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
10 Ohm/1000ft	3.8 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.3 pF/ft

Inductance

Nominal Inductance
0.107 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	0.3 dB/100ft
3.6 MHz	0.6 dB/100ft
5 MHz	0.63 dB/100ft
6 MHz	0.69 dB/100ft
7 MHz	0.74 dB/100ft
10 MHz	0.9 dB/100ft
12 MHz	0.91 dB/100ft
25 MHz	1.3 dB/100ft
67.5 MHz	2.05 dB/100ft
71.5 MHz	2.1 dB/100ft
88.5 MHz	2.2 dB/100ft
100 MHz	2.3 dB/100ft
135 MHz	2.7 dB/100ft
143 MHz	2.8 dB/100ft
180 MHz	3.1 dB/100ft
270 MHz	3.8 dB/100ft
360 MHz	4.4 dB/100ft
540 MHz	5.5 dB/100ft
720 MHz	6.4 dB/100ft
750 MHz	6.5 dB/100ft
1000 MHz	7.6 dB/100ft
1500 MHz	9.5 dB/100ft
2000 MHz	11.2 dB/100ft
2250 MHz	11.9 dB/100ft
3000 MHz	14.0 dB/100ft
4500 MHz	17.5 dB/100ft
6000 MHz	21.1 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:	TDR Impedance: 75 +/- 1.5 Ohms
Other Electrical Characteristic 2:	Return Loss: Fixed bridge and termination

Temperature Range

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

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	31 lbs/1000ft
Max Recommended Pulling Tension:	52 lbs
Min Bend Radius/Minor Axis:	2.5 in

Standards

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

RG Type:	59/U Type
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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):	2005-01-01
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, 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
Plenum Number:	1506A

Part Number

Related Parts:	1505BNCHD3
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Variants

Item #	Color	Putup Type	Length	UPC/EAN
1505A.00152	Black	Reel	152 m	8719605001115
1505A.00305	Black	Reel	305 m	8719605001139
1505A 010500	Black	Reel	500 ft	612825358732
1505A 0101000	Black	Reel	1,000 ft	612825358282
1505A 010N1000	Black	Reel w/Small Barrel	1,000 ft	
1505A.001525	Black	Reel	1,525 m	8719605001122
1505A 0105000	Black	Reel	5,000 ft	612825356301
1505A 01010000	Black	Reel	10,000 ft	612825440475
1505A.05152	Blue	Reel	152 m	8719605001245
1505A.05305	Blue	Reel	305 m	8719605001269
1505A.051525	Blue	Reel	1,525 m	8719605001252
1505A 006500	Blue, Light	Reel	500 ft	612825356271
1505A 0061000	Blue, Light	Reel	1,000 ft	612825358305
1505A 006N1000	Blue, Light	Reel w/Small Barrel	1,000 ft	
1505A 0065000	Blue, Light	Reel	5,000 ft	612825356356
1505A 00610000	Blue, Light	Reel	10,000 ft	612825435822
1505A 0011000	Brown	Reel	1,000 ft	612825358381
1505A 001N1000	Brown	Reel w/Small Barrel	1,000 ft	
1505A 0015000	Brown	Reel	5,000 ft	612825358350
1505A 0081000	Gray	Reel	1,000 ft	612825356332
1505A 008N1000	Gray	Reel w/Small Barrel	1,000 ft	
1505A 0085000	Gray	Reel	5,000 ft	612825356325
1505A 00810000	Gray	Reel	10,000 ft	612825435846
1505A.08305	Gray, Slate	Reel	305 m	8719605001320
1505A.081525	Gray, Slate	Reel	1,525 m	8719605001313

1505A.06305	Green	Reel	305 m	8719605001283
1505A.061525	Green	Reel	1,525 m	8719605001276
1505A N3U1000	Green, Mil	Reel	1,000 ft	612825358374
1505A N3UN1000	Green, Mil	Reel w/Small Barrel	1,000 ft	
1505A N3U5000	Green, Mil	Reel	5,000 ft	612825356516
1505A N3U10000	Green, Mil	Reel	10,000 ft	612825435860
1505A.03305	Orange	Reel	305 m	8719605001214
1505A 0031000	Orange	Reel	1,000 ft	612825356394
1505A 003N1000	Orange	Reel w/Small Barrel	1,000 ft	
1505A.031525	Orange	Reel	1,525 m	8719605001207
1505A 0025000	Orange	Reel	5,000 ft	612825358329
1505A 0035000	Orange	Reel	5,000 ft	612825356387
1505A 00310000	Orange	Reel	10,000 ft	612825435808
1505A.02152	Red	Reel	152 m	8719605001177
1505A.02305	Red	Reel	305 m	8719605001191
1505A 002500	Red	Reel	500 ft	612825358336
1505A 0021000	Red	Reel	1,000 ft	612825358343
1505A 002N1000	Red	Reel w/Small Barrel	1,000 ft	
1505A.021525	Red	Reel	1,525 m	8719605001184
1505A 00210000	Red	Reel	10,000 ft	612825435792
1505A.01152	Violet	Reel	152 m	8719605001146
1505A.01305	Violet	Reel	305 m	8719605001160
1505A 0071000	Violet	Reel	1,000 ft	612825356400
1505A 007N1000	Violet	Reel w/Small Barrel	1,000 ft	
1505A.011525	Violet	Reel	1,525 m	8719605001153
1505A 0075000	Violet	Reel	5,000 ft	612825356349
1505A 00710000	Violet	Reel	10,000 ft	612825435839
1505A.07305	White	Reel	305 m	8719605001306
1505A 0091000	White	Reel	1,000 ft	612825358299
1505A 009N1000	White	Reel w/Small Barrel	1,000 ft	
1505A.071525	White	Reel	1,525 m	8719605001290
1505A 0095000	White	Reel	5,000 ft	612825356318
1505A 00910000	White	Reel	10,000 ft	612825435853
1505A.04305	Yellow	Reel	305 m	8719605001238
1505A 0041000	Yellow	Reel	1,000 ft	612825358312
1505A 004N1000	Yellow	Reel w/Small Barrel	1,000 ft	
1505A.041525	Yellow	Reel	1,525 m	8719605001221
1505A 0045000	Yellow	Reel	5,000 ft	612825356370
1505A 00410000	Yellow	Reel	10,000 ft	612825435815

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

Product Notes

Notes:	Also available in 4.5 GHz multi-coax bundled versions. See 7794A through 7798A. Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.300 Revision Date: 04-28-2020
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