



**Part Number: 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

Environmental Space:	Outdoor - Aerial
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
20	Solid	BC - Bare Copper	0.032 in	1

Conductor Count:	1
AWG Size:	20

#### Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.145 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	0.233 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
300V 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:	RG-59/U Type

#### 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 Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
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 - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

### Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4

### Part Number

Plenum (Y/N):	No
Plenum Number:	1506A
Related Parts:	1505BNCHD3

### Variants

Item #	Color	Footnote
1505A.00152	BLACK	
1505A.001525	BLACK	
1505A.00305	BLACK	
1505A 0101000	BLACK	C
1505A 010500	BLACK	C
1505A 0105000	BLACK	C N
1505A 010N1000	BLACK	
1505A 010N1000	BLACK	
1505A 0061000	BLUE, LIGHT	C
1505A 006500	BLUE, LIGHT	C
1505A 0065000	BLUE, LIGHT	C N
1505A 006N1000	BLUE, LIGHT	
1505A 006N1000	BLUE, LIGHT	
1505A.05152	BLUE, RAL 5015	
1505A.051525	BLUE, RAL 5015	
1505A.05305	BLUE, RAL 5015	
1505A 0011000	BROWN	C
1505A 0015000	BROWN	C N
1505A 001N1000	BROWN	
1505A 001N1000	BROWN	
1505A 0081000	GRAY	C
1505A 0085000	GRAY	C N
1505A 008N1000	GRAY	
1505A 008N1000	GRAY	
1505A.081525	GRAY, SLATE	
1505A.08305	GRAY, SLATE	
1505A.061525	GREEN	
1505A.06305	GREEN	
1505A N3U1000	GREEN, MIL	C
1505A N3U5000	GREEN, MIL	C N
1505A N3UN1000	GREEN, MIL	
1505A N3UN1000	GREEN, MIL	

1505A.031525	ORANGE	
1505A.03305	ORANGE	
1505A 0025000	ORANGE	C N
1505A 0031000	ORANGE	C
1505A 0035000	ORANGE	C N
1505A 003N1000	ORANGE	
1505A 003N1000	ORANGE	
1505A 0021000	RED	C
1505A 002500	RED	C
1505A 002N1000	RED	
1505A 002N1000	RED	
1505A.02152	RED, RAL 3000	
1505A.021525	RED, RAL 3000	
1505A.02305	RED, RAL 3000	
1505A.01152	VIOLET	
1505A.011525	VIOLET	
1505A.01305	VIOLET	
1505A 0071000	VIOLET	C
1505A 0075000	VIOLET	C N
1505A 007N1000	VIOLET	
1505A 007N1000	VIOLET	
1505A.071525	WHITE	
1505A.07305	WHITE	
1505A 0091000	WHITE	C
1505A 0095000	WHITE	C N
1505A 009N1000	WHITE	
1505A 009N1000	WHITE	
1505A 0041000	YELLOW	C
1505A 0045000	YELLOW	C N
1505A 004N1000	YELLOW	
1505A 004N1000	YELLOW	
1505A.041525	YELLOW, RAL 1021	
1505A.04305	YELLOW, RAL 1021	

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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