



**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
Conductor Size:	20 AWG

**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/Polyester/Aluminum	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
----------	-----------

### 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
UL voltage rating:	300 V RMS

### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1506A

### Part Number

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 N3U1640	Mil Green	
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.
--------	---

© 2019 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.