



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	Aluminum/Polyester/Aluminum		95 %
		TC - Tinned Copper		

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

Shielding:	Foil + Braid(s)
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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
RG / Series 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
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Variants

Item #	Color	Footnote
1505A N3U1640		
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.

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