Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

1505A Coax - RG-59/U Type

For more Information please call

1-800-Belden1

General Description:

20 AWG solid .032" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

Usage (Overall)

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

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	20	Solid	BC - Bare Copper	.032

Total Number of Conductors:	1

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.145

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:	0.233 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	31 lbs/1000 ft.
Max. Recommended Pulling Tension:	52 lbs.
Min. Bend Radius/Minor Axis:	2.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes

Mil Order #39 (China RoHS):	Yes
RG Type:	59/U

Flame Test

UL Flame Test:	UL1666 Vertical Shaft
CSA Flame Test:	FT4

Suitability

Suitability - Indoor:	Yes

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/ft)
0.107

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.3

Nominal Velocity of Propagation:

VP (%)
82.000

Nominal Delay:

Delay (ns/ft)
1.240

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
10.0

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
3.8

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.300
3.600	0.600
5.000	0.630
6.000	0.690
7.000	0.740
10.000	0.900
12.000	0.910
25.000	1.300
67.500	2.050
71.500	2.100
88.500	2.200
100.000	2.300
135.000	2.700
143.000	2.800
180.000	3.100
270.000	3.800
360.000	4.400
540.000	5.500
720.000	6.400
750.000	6.500
1000.000	7.600
1500.000	9.500
2000.000	11.200
2250.000	11.900
3000.000	14.000
4500.000	17.500
6000.000	21.100

Max. Operating Voltage - UL:

Voltage
300 V RMS

Other Electrical Characteristic 1: TDR Impedance: 75 +/- 1.5 Ohms

Other Electrical Characteristic 2: Return Loss: Fixed bridge and termination.

Minimum Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5.000	1600.000	23.000
1600.000	4500.000	21.000
4500.000	6000.000	15.000

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 6 GHz.

Misc. Information (Overall)

Notes (Overall)

Notes: Also available in 4.5 GHz multi-coax bundled versions. See 7794A through 7796A, 7798A.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1505A N3UN1000	1,000 FT	36.000 LB	GREEN, MIL		#20 PE/GIFHDPE SH FRPVC
1505A N3U1000	1,000 FT	35.000 LB	GREEN, MIL	C	#20 PE/GIFHDPE SH FR PVC
1505A N3U5000	5,000 FT	165.000 LB	GREEN, MIL	C N	#20 PE/GIFHDPE SH FR PVC
1505A 001N1000	1,000 FT	36.000 LB	BROWN		#20 PE/GIFHDPE SH FRPVC
1505A 0011000	1,000 FT	35.000 LB	BROWN	C	#20 PE/GIFHDPE SH FR PVC
1505A 0015000	5,000 FT	165.000 LB	BROWN	C N	#20 PE/GIFHDPE SH FR PVC
1505A 002N1000	1,000 FT	36.000 LB	RED		#20 PE/GIFHDPE SH FRPVC
1505A 0021000	1,000 FT	35.000 LB	RED	C	#20 PE/GIFHDPE SH FR PVC
1505A 002500	500 FT	17.500 LB	RED	C	#20 PE/GIFHDPE SH FR PVC
1505A 0025000	5,000 FT	165.000 LB	ORANGE	C N	#20 PE/GIFHDPE SH FR PVC
1505A 003N1000	1,000 FT	36.000 LB	ORANGE		#20 PE/GIFHDPE SH FRPVC
1505A 0031000	1,000 FT	35.000 LB	ORANGE	C	#20 PE/GIFHDPE SH FR PVC
1505A 0035000	5,000 FT	165.000 LB	ORANGE	C N	#20 PE/GIFHDPE SH FR PVC
1505A 004N1000	1,000 FT	36.000 LB	YELLOW		#20 PE/GIFHDPE SH FRPVC
1505A 0041000	1,000 FT	35.000 LB	YELLOW	C	#20 PE/GIFHDPE SH FR PVC
1505A 0045000	5,000 FT	165.000 LB	YELLOW	C N	#20 PE/GIFHDPE SH FR PVC
1505A 006N1000	1,000 FT	36.000 LB	BLUE, LIGHT		#20 PE/GIFHDPE SH FRPVC
1505A 0061000	1,000 FT	35.000 LB	BLUE, LIGHT	C	#20 PE/GIFHDPE SH FR PVC
1505A 006500	500 FT	17.500 LB	BLUE, LIGHT	C	#20 PE/GIFHDPE SH FR PVC
1505A 0065000	5,000 FT	165.000 LB	BLUE, LIGHT	C N	#20 PE/GIFHDPE SH FR PVC
1505A 007N1000	1,000 FT	36.000 LB	VIOLET		#20 PE/GIFHDPE SH FRPVC
1505A 0071000	1,000 FT	35.000 LB	VIOLET	C	#20 PE/GIFHDPE SH FR PVC
1505A 0075000	5,000 FT	165.000 LB	VIOLET	C N	#20 PE/GIFHDPE SH FR PVC
1505A 008N1000	1,000 FT	36.000 LB	GRAY		#20 PE/GIFHDPE SH FRPVC
1505A 0081000	1,000 FT	35.000 LB	GRAY	C	#20 PE/GIFHDPE SH FR PVC
1505A 0085000	5,000 FT	165.000 LB	GRAY	C N	#20 PE/GIFHDPE SH FR PVC
1505A 009N1000	1,000 FT	36.000 LB	WHITE		#20 PE/GIFHDPE SH FRPVC
1505A 0091000	1,000 FT	35.000 LB	WHITE	C	#20 PE/GIFHDPE SH FR PVC
1505A 0095000	5,000 FT	165.000 LB	WHITE	C N	#20 PE/GIFHDPE SH FR PVC
1505A 010N1000	1,000 FT	36.000 LB	BLACK		#20 PE/GIFHDPE SH FRPVC
1505A 0101000	1,000 FT	35.000 LB	BLACK	C	#20 PE/GIFHDPE SH FR PVC
1505A 010500	500 FT	17.500 LB	BLACK	C	#20 PE/GIFHDPE SH FR PVC
1505A 0105000	5,000 FT	165.000 LB	BLACK	C N	#20 PE/GIFHDPE SH FR PVC

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

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