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1-800-Belden1



### General Description:

20 AWG solid .032" bare copper conductor, plenum, foam FEP insulation, Duofoil® + tinned copper braid shield (95% coverage), Flammarrest® jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	20	Solid	BC - Bare Copper	0.8128

Total Number of Conductors: 1

#### Insulation

##### Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (mm)
Teflon®	FFEP - Foam Fluorinated Ethylene Propylene	3.3782

#### 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 Trade Name	Outer Jacket Material
Flammarrest®	PVC - Polyvinyl Chloride

#### Overall Cable

Overall Nominal Diameter: 4.978 mm

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	43.158 Kg/Km
Max. Recommended Pulling Tension:	231.306 N
Min. Bend Radius/Minor Axis:	50.800 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
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):	04/01/2005

EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
RG Type:	59/U

**Flame Test**

UL Flame Test:	NFPA 262
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**Suitability**

Suitability - Indoor:	Yes
Suitability - Outdoor:	No

**Plenum/Non-Plenum**

Plenum (Y/N):	Yes
Non-Plenum Number:	1505A

**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

Impedance (Ohm)
75

**Nom. Inductance:**

Inductance (μH/m)
0.318257

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/m)
52.8241

**Nominal Velocity of Propagation:**

VP (%)
84

**Nominal Delay:**

Delay (ns/m)
3.97001

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/km)
32.81

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/km)
10.4992

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100m)
1	0.95149
3.58	2.03422
5	2.2967
7	2.69042
10	3.44505
67.5	7.2182
71.5	7.38225
100	8.8587
135	10.4992
143	10.6633
180	11.9757
270	14.9286
360	17.2252
540	20.9984

720	23.9513
750	24.6075
1000	30.8414
1500	41.9968
2250	57.4175
3000	71.8539

**Max. Operating Voltage - UL:**

<b>Voltage</b>
300 V RMS

**Other Electrical Characteristic 1:**

Impedance tested in accordance with ASTM D-4566 paragraph 48.2, option 2 using a 75 Ohm fixed bridge and termination.

**Other Electrical Characteristic 2:**

Return Loss tested in accordance with ASTM D-4566 paragraph 50.3, using a 75 Ohm 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

**Sweep Test****Sweep Testing:**

100% Sweep tested 5 MHz to 3 GHz.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1506A N3U1000	305 MT	14.061 KG	GREEN, MIL	C Z	#20 FFEP SH FLMRST
1506A 0011000	305 MT	14.061 KG	BROWN	C Z	#20 FFEP SH FLMRST
1506A 0021000	305 MT	14.061 KG	RED	C Z	#20 FFEP SH FLMRST
1506A 0031000	305 MT	14.061 KG	ORANGE	Z	#20 FFEP SH FLMRST
1506A 0041000	305 MT	14.061 KG	YELLOW	Z	#20 FFEP SH FLMRST
1506A 0061000	305 MT	14.061 KG	BLUE, LIGHT	C Z	#20 FFEP SH FLMRST
1506A 0071000	305 MT	14.061 KG	VIOLET	C Z	#20 FFEP SH FLMRST
1506A 0081000	305 MT	14.061 KG	GRAY	Z	#20 FFEP SH FLMRST
1506A 0101000	305 MT	14.061 KG	BLACK	C	#20 FFEP SH FLMRST
1506A 010500	152 MT	7.484 KG	BLACK	C Z	#20 FFEP SH FLMRST
1506A 8771000	305 MT	14.061 KG	NATURAL	C	#20 FFEP SH FLMRST
1506A 877500	152 MT	7.484 KG	NATURAL	C Z	#20 FFEP SH FLMRST

**Notes:**

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

**Test Reports****a) UL**

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

**b) CSA**

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

\* other test data may be available if requested at time of order.

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## **1506A Coax - RG-59/U Type**

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