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1-800-Belden1



## Description:

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

## Physical Characteristics (Overall)

### Conductor

#### AWG:

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

### Insulation

#### Insulation Material:

| Insulation Material                                 | Dia. (mm) |
|---|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 3.683     |

### 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 Cabling

Overall Nominal Diameter: 5.918 mm

## Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 46.134 Kg/Km

Max. Recommended Pulling Tension: 209.065 N

Min. Bend Radius (Install)/Minor Axis: 63.500 mm

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

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

MII Order #39 (China RoHS): Yes

RG Type: 59/U

### Flame Test

UL Flame Test: UL1666 Vertical Shaft

### Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black only

Suitability - Aerial: Yes - Black only, when supported by a messenger wire

### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 1506A

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

75

### Nom. Inductance:

Inductance (µH/m)

0.351067

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

53.4803

### Nominal Velocity of Propagation:

VP (%)

83

### Nominal Delay:

Delay (ns/m)

4.00282

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

32.81

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

12.4678

### Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100m)

1.000 0.984

3.600 1.969

5.000 2.067

6.000 2.264

7.000 2.428

10.000 2.953

12.000 2.986

25.000 4.265

67.500 6.726

71.500 6.890

88.500 7.218

100.000 7.546

135.000 8.859

143.000 9.187

|          |        |
|----------|--------|
| 180.000  | 10.171 |
| 270.000  | 12.468 |
| 360.000  | 14.436 |
| 540.000  | 18.046 |
| 720.000  | 20.998 |
| 750.000  | 21.327 |
| 1000.000 | 24.936 |
| 1500.000 | 30.513 |
| 2000.000 | 35.763 |
| 3000.000 | 43.965 |
| 2250.000 | 38.060 |
| 4500.000 | 53.808 |

**Max. Operating Voltage - UL:**

|                |
|----------------|
| <b>Voltage</b> |
| 300 V RMS      |

**Other Electrical Characteristic 1:** Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 1.5 Ohms

**Other Electrical Characteristic 2:** Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a 75 Ohm fixed bridge and termination.

**Minimum Return Loss:**

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5                 | 1600             | 23           |
| 1600              | 4500             | 21           |

**Sweep Test**

**Sweep Testing:** 100% Sweep tested 5 MHz to 4.5 GHz.

**Misc. Information (Overall)**

**Notes (Overall)**

**Notes:** Also available in bundled versions. See 7794A through 7798A.

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc                |
|---------------|----------|-------------|-------------|-------|--------------------------|
| 1505A N3U1000 | 305 MT   | 15.876 KG   | GREEN, MIL  | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A N3U5000 | 1,524 MT | 74.843 KG   | GREEN, MIL  | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0011000 | 305 MT   | 15.876 KG   | BROWN       | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0015000 | 1,524 MT | 74.843 KG   | BROWN       | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0021000 | 305 MT   | 15.876 KG   | RED         | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 002500  | 152 MT   | 7.031 KG    | RED         | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0025000 | 1,524 MT | 74.843 KG   | ORANGE      | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0031000 | 305 MT   | 15.876 KG   | ORANGE      | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0035000 | 1,524 MT | 74.843 KG   | ORANGE      | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0041000 | 305 MT   | 15.876 KG   | YELLOW      | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0045000 | 1,524 MT | 74.843 KG   | YELLOW      | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0061000 | 305 MT   | 15.876 KG   | BLUE, LIGHT | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 006500  | 152 MT   | 7.031 KG    | BLUE, LIGHT | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0065000 | 1,524 MT | 74.843 KG   | BLUE, LIGHT | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0071000 | 305 MT   | 15.876 KG   | VIOLET      | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0075000 | 1,524 MT | 74.843 KG   | VIOLET      | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0081000 | 305 MT   | 15.876 KG   | GRAY        | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0085000 | 1,524 MT | 74.843 KG   | GRAY        | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0091000 | 305 MT   | 15.876 KG   | WHITE       | C     | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0095000 | 1,524 MT | 74.843 KG   | WHITE       | C N   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0101000 | 305 MT   | 15.876 KG   | BLACK       | C     | #20 PE/GIFHDPE SH FR PVC |

## METRIC MEASUREMENT VERSION

### 1505A Coax - RG-59/U Type

|               |          |           |       |     |                          |
|---------------|----------|-----------|-------|-----|--------------------------|
| 1505A 010500  | 152 MT   | 7.031 KG  | BLACK | C   | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0105000 | 1,524 MT | 74.843 KG | 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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