METRIC 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.

1

Physical Characteristics (Overall)

Conductor

AWG:

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

Total Number of Conductors:

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 Cable

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: 231.306 N Min. Bend Radius/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 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 |

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| 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 |
| me Test | |
| UL Flame Test: | UL1666 Vertical Shaft |
| CSA Flame Test: | FT4 |
| tability | |
| Suitability - Indoor: | Yes |
| num/Non-Plenum | |
| Plenum (Y/N): | No |
| Plenum Number: | 1506A |
| | EU Directive 2002/96/EC (WEEE): EU Directive 2003/11/EC (BFR): CA Prop 65 (CJ for Wire & Cable): MII Order #39 (China RoHS): RG Type: me Test UL Flame Test: CSA Flame Test: tability Suitability - Indoor: num/Non-Plenum Plenum (Y/N): |

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:

Capacitance (pF/m) 53.4803

Nominal Velocity of Propagation:



Nominal Delay:



Nom. Conductor DC Resistance:



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 |

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| 143.000 9.187 180.000 10.17 | |
|--------------------------------|----|
| 100 000 10 17 | |
| 180.000 10.17 | ′1 |
| 270.000 12.46 | 8 |
| 360.000 14.43 | 16 |
| 540.000 18.04 | 6 |
| 720.000 20.99 | 8 |
| 750.000 21.32 | 27 |
| 1000.000 24.93 | 16 |
| 1500.000 30.51 | 3 |
| 2000.000 35.76 | 3 |
| 2250.000 38.06 | 0 |
| 3000.000 43.96 | 55 |
| 4500.000 53.80 | 18 |

Max. Operating Voltage - UL:

Voltage 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:

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

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------------|-------|--------------------------|
| 1505A N3U1000 | 305 MT | 15.876 KG | GREEN, MIL | С | #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 | С | #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 | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 002500 | 152 MT | 7.938 KG | RED | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0025000 | 1,524 MT | 74.843 KG | ORANGE | CN | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0031000 | 305 MT | 15.876 KG | ORANGE | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0035000 | 1,524 MT | 74.843 KG | ORANGE | CN | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0041000 | 305 MT | 15.876 KG | YELLOW | С | #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 | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 006500 | 152 MT | 7.938 KG | BLUE, LIGHT | С | #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 | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0075000 | 1,524 MT | 74.843 KG | VIOLET | CN | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0081000 | 305 MT | 15.876 KG | GRAY | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0085000 | 1,524 MT | 74.843 KG | GRAY | CN | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0091000 | 305 MT | 15.876 KG | WHITE | С | #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 | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 010500 | 152 MT | 7.938 KG | BLACK | С | #20 PE/GIFHDPE SH FR PVC |
| 1505A 0105000 | 1,524 MT | 74.843 KG | BLACK | CN | #20 PE/GIFHDPE SH FR PVC |

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Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

Revision Number: 7 Revision Date: 08-01-2013

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