# **Detailed Specifications & Technical Data**



### METRIC MEASUREMENT VERSION

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

For more Information please call

1-800-Belden1



#### **General Description:**

22 AWG stranded (7x29) .031" bare compacted copper conductor, gas-injected foam HDPE insulation, tinned copper double braid shield (95% coverage), PVC jacket.

| ysical Characteristics (Overall)<br>anductor<br>AWG:<br># Coax AWG Stranding Conductor Material Dia. (r<br>1 22 7x29 BCC - Bare Compacted Copper 0.7874<br>Total Number of Conductors: | mm)            |
|--|----------------|
| # Coax AWG Stranding Conductor Material Dia. (r   1 22 7x29 BCC - Bare Compacted Copper 0.7874   | mm)            |
| 1 22 7x29 BCC - Bare Compacted Copper 0.7874   |                |
| Total Number of Conductors:  |                |
|  | 1              |
| sulation   |                |
| nsulation Material:  | _              |
| Insulation Material Dia. (mm<br>Gas-injected FHDPE - Foam High Density Polyethylene 3.683  | <b>1)</b>      |
|  |                |
| iter Shield<br>Duter Shield Material:  |                |
| Layer # Type Outer Shield Material Coverage (%)  |                |
| 1 Braid TC - Tinned Copper 95.000   2 Braid TC - Tinned Copper 95.000  |                |
|  |                |
| iter Jacket<br>Duter Jacket Material:  |                |
| Outer Jacket Material  |                |
| PVC - Polyvinyl Chloride   |                |
| rerall Cable   |                |
| Overall Nominal Diameter:  | 6.147 mm       |
| chanical Characteristics (Overall)   |                |
| Operating Temperature Range:   | -35°C To +75°C |
| UL Temperature Rating:   | 75°C           |
| Bulk Cable Weight:   | 61.016 Kg/Km   |
| Max. Recommended Pulling Tension:  | 391.442 N      |
| Min. Bend Radius/Minor Axis:   | 63.500 mm      |
| plicable Specifications and Agency Compliance (  | (Overall)      |
| plicable Standards & Environmental Programs  |                |
| NEC/(UL) Specification:  | CM             |
| CEC/C(UL) Specification:   | CM             |
| 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            |
|  | Yes            |
| MII Order #39 (China RoHS):  |                |

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| Fla | ame Test              |                                |                   |
|-----|-----------------------|--------------------------------|-------------------|
|     | UL Flame              | Test:                          | UL1685 UL Loading |
| S   | itability             |                                |                   |
| 00  | Suitability           | Indoor                         | Yes               |
|     |                       |                                | 165               |
| Pl  | enum/Non-             |                                |                   |
|     | Plenum (Y             | /N):                           | No                |
| Ele | otrical Ck            | naracteristics (Ove            |                   |
| No  | m. Character          | ristic Impedance:              | 1011)             |
|     | Impedance (           |                                |                   |
|     | 75                    | ()                             |                   |
| No  | m. Inductand          |                                |                   |
|     | Inductance (          |                                |                   |
|     | 0.308414              | (                              |                   |
| No  |                       | nce Conductor to Shield        |                   |
| NU  | Capacitance           |                                |                   |
|     | 55.777                |                                |                   |
|     |                       |                                |                   |
|     |                       | ty of Propagation:             |                   |
|     | <b>VP (%)</b><br>80   |                                |                   |
|     |                       |                                |                   |
| NO  | minal Delay:          |                                |                   |
|     | Delay (ns/m<br>4.2653 | /                              |                   |
|     |                       |                                |                   |
|     | DCR @ 20°C            | or DC Resistance:              |                   |
|     | 40.0282               |                                |                   |
|     |                       |                                |                   |
|     | DCR @ 20°C            | Shield DC Resistance:          |                   |
|     | 7.8744                |                                |                   |
|     |                       |                                |                   |
|     | m. Attenuati          |                                |                   |
|     | 1.000                 | Attenuation (dB/100m)<br>0.656 |                   |
|     | 3.600                 | 1.641                          |                   |
|     | 5.000                 | 1.969                          |                   |
|     |                       | 2.198                          |                   |
|     | 7.000                 | 2.395                          |                   |
|     | 10.000                | 2.953                          |                   |
|     | 12.000                | 3.215                          |                   |
|     |                       | 4.725                          |                   |
|     |                       | 7.874                          |                   |
|     | 71.500<br>88.500      | 8.203<br>9.187                 |                   |
|     | 100.000               | 9.187<br>9.843                 |                   |
|     | 135.000               | 11.484                         |                   |
|     | 143.000               | 11.812                         |                   |
|     | 180.000               | 13.452                         |                   |
|     | 270.000               | 16.733                         |                   |
|     | 360.000               | 19.686                         |                   |
|     |                       | 24.279                         |                   |
|     |                       | 28.545                         |                   |
|     |                       | 34.451                         |                   |
|     |                       | 29.201<br>43.637               |                   |
|     |                       | 43.637<br>51.512               |                   |
|     |                       | 55.449                         |                   |
|     |                       | 66.604                         |                   |
|     |                       | 92.524                         |                   |
|     |                       | Voltage - UL:                  |                   |
|     | Voltage<br>300 V RMS  | -onage - oL.                   |                   |
|     |                       |                                |                   |

Other Electrical Characteristic 1:

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Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination.

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#### METRIC MEASUREMENT VERSION



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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) |
|-------------------|------------------|--------------|
| 5.000             | 850.000          | 20.000       |
| 851.000           | 4500.000         | 15.000       |

#### Sweep Test

Sweep Testing:

100% Sweep tested 5 MHz to 4.5 GHz.

#### Notes (Overall)

Notes: Compacted conductor combines impedance uniformity of solid conductors and "nick-resistance" of stranded conductor.

#### Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color         | Notes | Item Desc              |
|---------------|----------|-------------|---------------|-------|------------------------|
| 1505F B591000 | 1,000 FT | 45.000 LB   | BLACK, MATTE  | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F G7V1000 | 1,000 FT | 45.000 LB   | RED, MATTE    | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F G7W1000 | 1,000 FT | 45.000 LB   | GREEN, MATTE  | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F G7X1000 | 1,000 FT | 45.000 LB   | BLUE, MATTE   | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F G7Y1000 | 1,000 FT | 45.000 LB   | WHITE, MATTE  | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F G8L1000 | 1,000 FT | 45.000 LB   | ORANGE, MATTE | С     | #21 GIFHDLDPE DBLB PVC |
| 1505F Z4B1000 | 1,000 FT | 45.000 LB   | VIO Z4B       |       | #21 GIFHDLDPE DBLB PVC |
| 1505F 0041000 | 1,000 FT | 45.000 LB   | YELLOW        | С     | #21 GIFHDLDPE DBLB PVC |

Notes:

C = CRATE REEL PUT-UP.

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