



Product: [1505F](#)

Serial Digital Coax, RG59, Flexible 22 AWG Stranded BC, Double TC Braid, CM PVC Jacket

Product Description

Low Loss Serial Digital Coax, RG-59/U Type, CM-Rated, 22 AWG stranded bare compacted copper conductor, foam HDPE core, double 95% tinned copper braid, flexible PVC jacket

Technical Specifications

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material                       | Nominal Diameter | No. of Coax |
|-----|-----------|--------------------------------|------------------|-------------|
| 22  | 7x29      | BC-C - Bare Copper (Compacted) | 0.032 in         | 1           |

Conductor Count:1

Insulation

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.145 in         |

Insulation, Table Note:Gas Injected

Outer Shield Material

| Type  | Layer | Material           | Coverage [%] |
|-------|-------|--------------------|--------------|
| Braid | 1     | TC - Tinned Copper | 95 %         |
| Braid | 2     | TC - Tinned Copper | 95 %         |

Outer Jacket Material

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.242 in         |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR | Outer Conductor DCR |
|-----------------------|--------------------------|---------------------|
| 12.2 Ohm/1000ft       | 2.4 Ohm/1000ft           | 2.4 Ohm/1000ft      |

Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 17 pF/ft                             |

Inductance

| Nominal Inductance |
|--------------------|
| 0.094 µH/ft        |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 75 Ohm                           |

Return Loss (RL)

| Frequency [MHz] | Minimum Return (RL) |
|-----------------|---------------------|
|-----------------|---------------------|

|                |       |
|----------------|-------|
| 5 - 850 MHz    | 20 dB |
| 850 - 6000 MHz | 15 dB |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz           | 0.2 dB/100ft        |
| 3.6 MHz         | 0.5 dB/100ft        |
| 5 MHz           | 0.6 dB/100ft        |
| 6 MHz           | 0.67 dB/100ft       |
| 7 MHz           | 0.73 dB/100ft       |
| 10 MHz          | 0.9 dB/100ft        |
| 12 MHz          | 0.98 dB/100ft       |
| 25 MHz          | 1.44 dB/100ft       |
| 55 MHz          | 2.2 dB/100ft        |
| 67.5 MHz        | 2.4 dB/100ft        |
| 71.5 MHz        | 2.5 dB/100ft        |
| 88.5 MHz        | 2.8 dB/100ft        |
| 100 MHz         | 3 dB/100ft          |
| 135 MHz         | 3.5 dB/100ft        |
| 143 MHz         | 3.6 dB/100ft        |
| 180 MHz         | 4.1 dB/100ft        |
| 270 MHz         | 5.1 dB/100ft        |
| 360 MHz         | 6 dB/100ft          |
| 540 MHz         | 7.5 dB/100ft        |
| 720 MHz         | 8.9 dB/100ft        |
| 750 MHz         | 9.1 dB/100ft        |
| 1000 MHz        | 10.8 dB/100ft       |
| 1500 MHz        | 13.6 dB/100ft       |
| 2000 MHz        | 16.1 dB/100ft       |
| 2250 MHz        | 17.3 dB/100ft       |
| 3000 MHz        | 20.7 dB/100ft       |
| 4500 MHz        | 26.7 dB/100ft       |
| 6000 MHz        | 32.2 dB/100ft       |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|------------------------------------------|
| 1.3 ns/ft     | 80 %                                     |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V RMS         |

Temperature Range

|                       |                |
|-----------------------|----------------|
| Non-UL Temp Rating:   | 75°C           |
| UL Temp Rating:       | 60°C           |
| Operating Temp Range: | -35°C To +75°C |

Mechanical Characteristics

|                                  |               |
|----------------------------------|---------------|
| Bulk Cable Weight:               | 42 lbs/1000ft |
| Max Recommended Pulling Tension: | 73 lbs        |
| Min Bend Radius/Minor Axis:      | 2.5 in        |

Standards

|                          |           |
|--------------------------|-----------|
| NEC/(UL) Specification:  | CM        |
| CEC/C(UL) Specification: | CM        |
| RG Type:                 | 59/U Type |

Applicable Environmental and Other Programs

|                                |                              |
|--------------------------------|------------------------------|
| Environmental Space:           | Indoor (Not Riser or Plenum) |
| EU Directive 2000/53/EC (ELV): | Yes                          |
| EU Directive 2003/96/EC (BFR): | Yes                          |

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2005-01-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

### Suitability

|                       |     |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

### Flammability, LS0H, Toxicity Testing

|                    |                   |
|--------------------|-------------------|
| UL Flammability:   | UL1685 UL Loading |
| UL voltage rating: | 300 V RMS         |

### Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

### Part Number

#### Variants

| Item #        | Color         | Putup Type | Length   | UPC          |
|---------------|---------------|------------|----------|--------------|
| 1505F B591000 | Black, Matte  | Reel       | 1,000 ft | 612825356295 |
| 1505F B593000 | Black, Matte  | Reel       | 3,000 ft | 612825439929 |
| 1505F G7X1000 | Blue, Matte   | Reel       | 1,000 ft | 612825356417 |
| 1505F G7X3000 | Blue, Matte   | Reel       | 3,000 ft | 612825439950 |
| 1505F G7W1000 | Green, Matte  | Reel       | 1,000 ft | 612825358367 |
| 1505F G7W3000 | Green, Matte  | Reel       | 3,000 ft | 612825440000 |
| 1505F G8L1000 | Orange, Matte | Reel       | 1,000 ft | 612825356509 |
| 1505F G8L3000 | Orange, Matte | Reel       | 3,000 ft | 612825439967 |
| 1505F G7V1000 | Red, Matte    | Reel       | 1,000 ft | 612825356288 |
| 1505F G7V3000 | Red, Matte    | Reel       | 3,000 ft | 612825439943 |
| 1505F Z4B3000 | Violet        | Reel       | 3,000 ft | 612825439974 |
| 1505F Z4B1000 | Violet Z4B    | Reel       | 1,000 ft | 612825356493 |
| 1505F G7Y1000 | White, Matte  | Reel       | 1,000 ft | 612825356363 |
| 1505F 0041000 | Yellow        | Reel       | 1,000 ft | 612825356486 |
| 1505F 0043000 | Yellow        | Reel       | 3,000 ft | 612825440017 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

### History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.284 Revision Date: 04-28-2020 |
|----------------------|--------------------------------------------------|

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