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1-800-Belden1



## General Description:

RG-174 type, 25 AWG solid .018" bare copper conductor, solid polyethylene insulation, Beldfoil® + tinned copper braid shield (90% coverage), PVC jacket.

## Physical Characteristics (Overall)

### Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|--------------------|-----------|
| 1      | 25  | Solid     | BC - Bare Copper   | 0.4572    |

Total Number of Conductors: 1

### Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|---------------------|-----------|
| PE - Polyethylene   | 1.5494    |

### Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type  | Outer Shield Material        | Coverage (%) |
|---------|-------------------------|-------|------------------------------|--------------|
| 1       | Beldfoil®               | Tape  | Aluminum Foil-Polyester Tape | 100          |
| 2       |                         | Braid | TC - Tinned Copper           | 90           |

### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

### Overall Cable

Overall Nominal Diameter: 2.794 mm

## Mechanical Characteristics (Overall)

|                                   |                |
|-----------------------------------|----------------|
| Operating Temperature Range:      | -40°C To +80°C |
| Non-UL Temperature Rating:        | 80°C           |
| Bulk Cable Weight:                | 13.394 Kg/Km   |
| Max. Recommended Pulling Tension: | 71.171 N       |
| Min. Bend Radius/Minor Axis:      | 31.750 mm      |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

|                                       |            |
|---------------------------------------|------------|
| EU Directive 2011/65/EU (ROHS II):    | Yes        |
| EU CE Mark:                           | No         |
| EU Directive 2000/53/EC (ELV):        | Yes        |
| EU Directive 2002/95/EC (RoHS):       | Yes        |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| EU Directive 2002/96/EC (WEEE):       | Yes        |
| EU Directive 2003/11/EC (BFR):        | Yes        |
| CA Prop 65 (CJ for Wire & Cable):     | Yes        |
| MIL Order #39 (China RoHS):           | Yes        |
| RG Type:                              | 174/U      |
| Series Type:                          | RF 100     |

### Suitability

Plenum/Non-Plenum

Plenum (Y/N): No

## Electrical Characteristics (Overall)

**Nom. Characteristic Impedance:**

**Impedance (Ohm)**  
50

**Nom. Inductance:**

**Inductance (µH/m)**  
0.252637

**Nom. Capacitance Conductor to Shield:**

**Capacitance (pF/m)**  
102.367

**Nominal Velocity of Propagation:**

**VP (%)**  
66

**Nominal Delay:**

**Delay (ns/m)**  
5.05274

**Nom. Conductor DC Resistance:**

**DCR @ 20°C (Ohm/km)**  
104.992

**Nominal Outer Shield DC Resistance:**

**DCR @ 20°C (Ohm/km)**  
29.8571

**Maximum VSWR:**

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Max. VSWR |
|-------------|-------------|-------------------|------------------|-----------|
|             |             | 5                 | 6000             | 1.25:1    |

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 5.000       | 4.922                 |
| 10.000      | 7.218                 |
| 30.000      | 12.468                |
| 50.000      | 16.077                |
| 150.000     | 28.217                |
| 220.000     | 34.122                |
| 450.000     | 49.871                |
| 900.000     | 72.182                |
| 1500.000    | 94.165                |
| 1800.000    | 104.008               |
| 2000.000    | 109.585               |
| 2500.000    | 124.022               |
| 3000.000    | 137.802               |
| 3500.000    | 148.957               |
| 4500.000    | 171.596               |
| 5800.000    | 199.813               |
| 6000.000    | 203.422               |

**Nom. Power Rating:**

| Start Freq. (MHz) | Rating (W) |
|-------------------|------------|
| 30                | 216        |
| 50                | 154        |
| 150               | 74         |
| 220               | 57         |
| 450               | 34         |
| 900               | 21         |
| 1500              | 14         |
| 1800              | 13         |
| 2000              | 12         |
| 2500              | 10         |
| 3000              | 9          |
| 3500              | 8          |
| 4500              | 7          |
| 5800              | 5          |
| 6000              | 5          |

**Max. Operating Voltage - Non-UL:**

**Voltage**

1100 V RMS

**Notes (Overall)**

**Notes:** 100% Sweep tested. 6 GHz. Max. Belden® The Wire in Wireless®.

**Put Ups and Colors:**

| Item #       | Putup    | Ship Weight | Color | Notes | Item Desc                      |
|--------------|----------|-------------|-------|-------|--------------------------------|
| 7805 010100  | 100 FT   | 1.700 LB    | BLACK | E     | RF100 WIRELESS 50 OHM COAX PVC |
| 7805 0101000 | 1,000 FT | 10.000 LB   | BLACK |       | RF100 WIRELESS 50 OHM COAX PVC |
| 7805 010500  | 500 FT   | 5.500 LB    | BLACK |       | RF100 WIRELESS 50 OHM COAX PVC |

**Notes:**

E = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

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