



Product: [7805R](#)

50 Ohm Wireless Transmission Coax, RF 100, RG174, 25 AWG Solid BC, Foil + 90% TC Braid, PVC Jkt, CMR

Product Description

50 Ohm Wireless Transmission Coax, RF 100, RG174, 25 AWG Solid Bare Copper Conductor, PE Insulation, Beldfoil® + 90% Tinned Copper Braid Shield, PVC Jacket, CMR

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Point-to-point and point-to-multipoint wireless antenna communication; Wireless microphones, Two-Way Radios, Amateur (Ham) Radio, Low Power FM, GPS, RFID (Radio Frequency Identification) |
|------------------------|--|

Construction Details

| | |
|----------|-----|
| RG Type: | 174 |
|----------|-----|

Conductor

| Size | Stranding | Nom. Diameter | Material |
|--------|-----------|---------------|------------------|
| 25 AWG | Solid | 0.020 in | BC - Bare Copper |

Insulation

| Material | Nom. Insulation Diameter | Color Code |
|--------------------------|--------------------------|------------|
| PE - Polyethylene (Foam) | 0.060 in (1.5 mm) | White |

Outer Shield

| Layer | Outer Shield Type | Material | Material Trade Name | Coverage |
|-------|-------------------|-------------------------|---------------------|----------|
| 1 | Tape | Bi-Laminate (Alum+Poly) | Beldfoil® | 100% |
| 2 | Braid | Tinned Copper (TC) | | 90% |

Outer Jacket

| Material | Nom. Diameter |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.110 in (2.79 mm) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.110 in (2.79 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

VSWR

| Frequency | Max. VSWR |
|--------------|-----------|
| 5 - 6000 MHz | 1.25:1 |

Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 5 MHz | 1.4 dB/100ft |
| 10 MHz | 2 dB/100ft |
| 30 MHz | 3.5 dB/100ft |
| 50 MHz | 4.6 dB/100ft |
| 150 MHz | 8.0 dB/100ft |
| 220 MHz | 9.6 dB/100ft |
| 450 MHz | 14.0 dB/100ft |

| | |
|----------|---------------|
| 900 MHz | 20.2 dB/100ft |
| 1500 MHz | 26.6 dB/100ft |
| 1800 MHz | 29.5 dB/100ft |
| 2000 MHz | 31.2 dB/100ft |
| 2500 MHz | 35.4 dB/100ft |
| 3000 MHz | 39.4 dB/100ft |
| 3500 MHz | 43.0 dB/100ft |
| 4500 MHz | 50.0 dB/100ft |
| 5800 MHz | 59.0 dB/100ft |
| 6000 MHz | 60.6 dB/100ft |

Power Rating

| Frequency | Max. Power Rating |
|-----------|-------------------|
| 30 MHz | 216 W |
| 50 MHz | 154 W |
| 150 MHz | 74 W |
| 220 MHz | 57 W |
| 450 MHz | 34 W |
| 900 MHz | 21 W |
| 1,500 MHz | 14 W |
| 2,000 MHz | 12 W |
| 2,500 MHz | 10 W |
| 3,500 MHz | 8 W |
| 4,500 MHz | 7 W |
| 6,000 MHz | 5 W |

Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|--------------------|----------------------------|---------------------------------|-------------------------------|------------------------|
| 27.3 Ohm/1000ft | 9.3 Ohm/1000ft (31 Ohm/km) | 26.2 pF/ft (86.0 pF/m) | 50 Ohm | 74% |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CMR, CMG) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating |
|----------------|----------------|
| 60°C | -40°C to +80°C |

Bend Radius

| Installation Min. |
|-------------------|
| 0.25 in (6.4 mm) |

| | |
|--------------------|-----------------|
| Max. Pull Tension: | 20 lbs (9.1 kg) |
| Bulk Cable Weight: | 9 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor - Riser, Indoor |
| Sustainability: | CA Prop 65 |
| Flammability / Reaction to Fire: | UL1666 Vertical Shaft |
| NEC / UL Compliance: | CMR |
| CEC / C(UL) Compliance: | CMG |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.493 Revision Date: 04-13-2023 |
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Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC |
|---------------|-------|------------|----------|--------------|
| 7805R 008100 | Gray | Reel | 100 ft | 612825189558 |
| 7805R 008500 | Gray | Reel | 500 ft | 612825189572 |
| 7805R 0081000 | Gray | Reel | 1,000 ft | 612825189565 |

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