



Product: [7808R](#)



50 Ohm Wireless Transmission Coax, RF 240, RG58X, 15 AWG Solid BC, Foil + 95% TC Braid, PVC Jkt, CMR

Product Description

50 Ohm Wireless Transmission Coax, RF 240, RG58X, 15 AWG Solid Bare Copper Conductor, PE Insulation, Duofoil® II + 95% 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) |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material         | Nominal Diameter | No. of Coax |
|-----|-----------|------------------|------------------|-------------|
| 15  | Solid     | BC - Bare Copper | 0.057 in         | 1           |

|                  |   |
|------------------|---|
| Conductor Count: | 1 |
|------------------|---|

Insulation

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.150 in         |

Outer Shield

| Type  | Layer | Material                      | Material Trade Name | Coverage [%] |
|-------|-------|-------------------------------|---------------------|--------------|
| Tape  | 1     | Tri-Laminate (Alum+Poly+Alum) | Duofoil®            | 100%         |
| Braid | 2     | Tinned Copper (TC)            |                     | 95%          |

Outer Jacket

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.240 in         |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR | Outer Conductor DCR |
|-----------------------|--------------------------|---------------------|
| 3.2 Ohm/1000ft        | 2.8 Ohm/1000ft           | 2.8 Ohm/1000ft      |

Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 23 pF/ft                             |

Inductance

| Nominal Inductance |
|--------------------|
| 0.06 µH/ft         |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 50 Ohm                           |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 5 MHz           | 0.58 dB/100ft       |
| 10 MHz          | 0.77 dB/100ft       |
| 30 MHz          | 1.3 dB/100ft        |
| 50 MHz          | 1.6 dB/100ft        |
| 150 MHz         | 2.8 dB/100ft        |
| 220 MHz         | 3.4 dB/100ft        |
| 450 MHz         | 4.9 dB/100ft        |
| 900 MHz         | 7.0 dB/100ft        |
| 1500 MHz        | 9.1 dB/100ft        |
| 1800 MHz        | 10.1 dB/100ft       |
| 2000 MHz        | 10.7 dB/100ft       |
| 2500 MHz        | 12 dB/100ft         |
| 3000 MHz        | 13.4 dB/100ft       |
| 3500 MHz        | 14.6 dB/100ft       |
| 4500 MHz        | 16.7 dB/100ft       |
| 5800 MHz        | 19.5 dB/100ft       |
| 6000 MHz        | 19.8 dB/100ft       |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|------------------------------------------|
| 1.18 ns/ft    | 86%                                      |

High Frequency

| Frequency [MHz] |
|-----------------|
| 30 MHz          |
| 50 MHz          |
| 150 MHz         |
| 220 MHz         |
| 450 MHz         |
| 900 MHz         |
| 1500 MHz        |
| 1800 MHz        |
| 2000 MHz        |
| 2500 MHz        |
| 3000 MHz        |
| 3500 MHz        |
| 4500 MHz        |
| 5800 MHz        |
| 6000 MHz        |

Power Rating

| Frequency [MHz] | Max. Power Rating [W] |
|-----------------|-----------------------|
| 30 MHz          | 1,526 W               |
| 50 MHz          | 1,186 W               |
| 150 MHz         | 673 W                 |
| 220 MHz         | 556 W                 |
| 450 MHz         | 382 W                 |
| 900 MHz         | 268 W                 |
| 1,500 MHz       | 205 W                 |
| 2,000 MHz       | 177 W                 |
| 2,500 MHz       | 156 W                 |
| 3,500 MHz       | 100 W                 |
| 4,500 MHz       | 116 W                 |
| 6,000 MHz       | 100 W                 |

Voltage

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

VSWR

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

Temperature Range

|                              |                |
|------------------------------|----------------|
| UL Temp Rating:              | 60°C           |
| Operating Temperature Range: | -20°C to +75°C |

Mechanical Characteristics

|                              |               |
|------------------------------|---------------|
| Bulk Cable Weight:           | 40 lbs/1000ft |
| Max. Pull Tension:           | 69 lbs        |
| Min. Bend Radius/Minor Axis: | 2.4 in        |

Standards

|                       |     |
|-----------------------|-----|
| NEC/(UL) Compliance:  | CMR |
| CEC/C(UL) Compliance: | CMG |
| CPR Euroclass:        | Eca |
| RG Type:              | 58X |

Applicable Environmental and Other Programs

|                                              |                               |
|----------------------------------------------|-------------------------------|
| Environmental Space:                         | Indoor/Outdoor                |
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/11/EC (BFR):               | Yes                           |
| EU Directive 2003/96/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| MII Order #39 (China RoHS):                  | Yes                           |

Suitability

|                                    |                                                    |
|------------------------------------|----------------------------------------------------|
| Suitability - Aerial:              | Yes - Black only, when supported by messenger wire |
| Suitability - Burial:              | No                                                 |
| Suitability - Hazardous Locations: | No                                                 |
| Suitability - Indoor:              | Yes                                                |
| Suitability - Outdoor:             | Yes - Black only                                   |

Flammability, LSOH, Toxicity Testing

|                    |                       |
|--------------------|-----------------------|
| UL Flammability:   | UL1666 Vertical Shaft |
| IEC Flammability:  | IEC 60332-1-2         |
| UL voltage rating: | 300 V RMS             |

Plenum/Non-Plenum

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

Related Part Numbers

Variants

| Item #        | Color | Put-Up Type | Length   | UPC          |
|---------------|-------|-------------|----------|--------------|
| 7808R 010500  | Black | Reel        | 500 ft   | 612825189701 |
| 7808R 0101000 | Black | Reel        | 1,000 ft | 612825189695 |

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

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.485 Revision Date: 04-29-2024 |
|----------------------|--------------------------------------------------|

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