



**Product:** [82240](#)

50 Ohm Wireless Transmission Coax, RG-58, 20 AWG Solid BC, 95% TC Braid, Flamarrest® Jkt, CMP

### Product Description

50 Ohm Wireless Transmission Coax, RG-58, 20 AWG Solid Bare Copper Conductor, FEP Insulation, 95% Tinned Copper Braid Shield, Flamarrest® Jacket, CMP

### Technical Specifications

#### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | Wireless microphones, Two-Way Radios, Amateur (Ham) Radio, Low Power FM, GPS, RFID (Radio Frequency Identification) |
|------------------------|---|

#### Construction Details

|          |    |
|----------|----|
| RG Type: | 58 |
|----------|----|

#### Conductor

| Size   | Stranding | Nom. Diameter | Material         |
|--------|-----------|---------------|------------------|
| 20 AWG | Solid     | 0.032 in      | BC - Bare Copper |

#### Insulation

| Material                             | Nom. Insulation Diameter | Color Code |
|--------------------------------------|--------------------------|------------|
| FEP - Fluorinated Ethylene Propylene | 0.107 in (2.72 mm)       | Clear      |

#### Outer Shield

| Outer Shield Type | Material           | Coverage |
|-------------------|--------------------|----------|
| Braid             | Tinned Copper (TC) | 95%      |

#### Outer Jacket

| Material                 | Nom. Diameter      |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.159 in (4.04 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.159 in (4.04 mm) |
|-----------------------------------|--------------------|

#### Electrical Characteristics

##### Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 1 MHz     | 0.5 dB/100ft     |
| 10 MHz    | 1.2 dB/100ft     |
| 50 MHz    | 3.0 dB/100ft     |
| 100 MHz   | 4.3 dB/100ft     |
| 200 MHz   | 6.4 dB/100ft     |
| 400 MHz   | 9.7 dB/100ft     |
| 700 MHz   | 13.7 dB/100ft    |
| 900 MHz   | 16.1 dB/100ft    |
| 1000 MHz  | 17.3 dB/100ft    |

##### Power Rating

| Frequency | Max. Power Rating |
|-----------|-------------------|
| 1 MHz     | 4,799 W           |

|           |         |
|-----------|---------|
| 10 MHz    | 1,937 W |
| 50 MHz    | 782 W   |
| 100 MHz   | 542 W   |
| 200 MHz   | 370 W   |
| 400 MHz   | 248 W   |
| 700 MHz   | 178 W   |
| 900 MHz   | 153 W   |
| 1,000 MHz | 143 W   |

#### Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR      | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|--------------------|----------------------------|---------------------------------|-------------------------------|------------------------|
| 10.1 Ohm/1000ft    | 3.8 Ohm/1000ft (12 Ohm/km) | 27.4 pF/ft (89.9 pF/m)          | 53 Ohm                        | 70%                    |

#### Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CMP)       |

## Mechanical Characteristics

#### Temperature

| UL Temperature | Operating    |
|----------------|--------------|
| 75°C           | 0°C to +75°C |

#### Bend Radius

| Installation Min. |
|-------------------|
| 1.6 in (41 mm)    |

|                    |                          |
|--------------------|--------------------------|
| Max. Pull Tension: | 47 lbs (21 kg)           |
| Bulk Cable Weight: | 30 lbs/1000ft (45 kg/km) |

## Standards and Compliance

|                                  |  |
|----------------------------------|--|
| Environmental Suitability:       | Indoor - Plenum, Indoor  |
| Sustainability:                  | CA Prop 65   |
| Flammability / Reaction to Fire: | NFPA 262   |
| CPR Compliance:                  | CPR Euroclass: Eca   |
| NEC / UL Compliance:             | CMP  |
| CEC / C(UL) Compliance:          | CMP  |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark  |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)  |
| Non-Plenum Number:               | 8240   |

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.455 Revision Date: 04-13-2023 |
|----------------------|--|

## Part Numbers

#### Variants

| Item #         | Color   | Putup Type   | Length   | UPC          |
|----------------|---------|--------------|----------|--------------|
| 82240 010U500  | Black   | UnReel       | 500 ft   | 612825434832 |
| 82240 010Z500  | Black   | ReelTuff Box | 500 ft   | 612825196440 |
| 82240 010Z1000 | Black   | ReelTuff Box | 1,000 ft | 612825434757 |
| 82240 877U500  | Natural | UnReel       | 500 ft   | 612825434849 |
| 82240 877I1000 | Natural | Reel         | 1,000 ft | 612825196426 |
| 82240 877U1000 | Natural | UnReel       | 1,000 ft | 612825196433 |
| 82240 877Z1000 | Natural | ReelTuff Box | 1,000 ft | 612825196471 |

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