



Product: [7810A](#)

50 Ohm Wireless Transmission Coax, RF 400, RG-8, 10 AWG Solid BCCA, Foil + 95% TC Braid, PE Jkt

Product Description

50 Ohm Wireless Transmission Coax, RF400, RG8, 10 AWG Solid Bare Copper Covered Aluminum Conductor, PE Insulation, Duofoil® II + 95% Tinned Copper Braid Shield, PE Jacket

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: | 8 |
|----------|---|

Conductor

| Size   | Stranding | Nom. Diameter | Material                            |
|--------|-----------|---------------|-------------------------------------|
| 10 AWG | Solid     | 0.111 in      | BCCA - Bare Copper Covered Aluminum |

Insulation

| Material                 | Nom. Insulation Diameter | Color Code |
|--------------------------|--------------------------|------------|
| PE - Polyethylene (Foam) | 0.285 in (7.24 mm)       | White      |

Outer Shield

| Layer | Outer Shield Type | Material                      | Material Trade Name | Coverage |
|-------|-------------------|-------------------------------|---------------------|----------|
| 1     | Tape              | Tri-Laminate (Alum+Poly+Alum) | Duobond® II         | 100%     |
| 2     | Braid             | Tinned Copper (TC)            |                     | 95%      |

Outer Jacket

| Material          | Nom. Diameter      |
|-------------------|--------------------|
| PE - Polyethylene | 0.403 in (10.2 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.403 in (10.2 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

VSWR

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

Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 30 MHz    | 0.7 dB/100ft     |
| 50 MHz    | 0.9 dB/100ft     |
| 150 MHz   | 1.5 dB/100       |
| 220 MHz   | 1.8 dB/100ft     |
| 450 MHz   | 2.7 dB/100ft     |
| 900 MHz   | 3.8 dB/100ft     |
| 1500 MHz  | 5.1 dB/100ft     |

|          |               |
|----------|---------------|
| 1800 MHz | 5.6 dB/100ft  |
| 2000 MHz | 6 dB/100ft    |
| 2500 MHz | 6.7 dB/100ft  |
| 3000 MHz | 7.5 dB/100ft  |
| 3500 MHz | 8.2 dB/100ft  |
| 4500 MHz | 9.5 dB/100ft  |
| 5800 MHz | 11.1 dB/100ft |
| 6000 MHz | 11.4 dB/100ft |

Power Rating

| Frequency | Max. Power Rating |
|-----------|-------------------|
| 30 MHz    | 3,427 W           |
| 50 MHz    | 2,588 W           |
| 150 MHz   | 1,428 W           |
| 220 MHz   | 1,195 W           |
| 450 MHz   | 817 W             |
| 900 MHz   | 575 W             |
| 1,500 MHz | 437 W             |
| 2,000 MHz | 375 W             |
| 2,500 MHz | 334 W             |
| 3,500 MHz | 282 W             |
| 4,500 MHz | 247 W             |
| 6,000 MHz | 213 W             |

Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR       | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|--------------------|-----------------------------|---------------------------------|-------------------------------|------------------------|
| 1.3 Ohm/1000ft     | 2.0 Ohm/1000ft (6.6 Ohm/km) | 23 pF/ft (75 pF/m)              | 50 Ohm                        | 86%                    |

Voltage

| Voltage Rating |
|----------------|
| 300 V          |

Mechanical Characteristics

Temperature

| Operating      |
|----------------|
| -40°C to +80°C |

Bend Radius

| Installation Min. |
|-------------------|
| 2 in (51 mm)      |

|                    |                   |
|--------------------|-------------------|
| Max. Pull Tension: | 145 lbs (65.8 kg) |
| Bulk Cable Weight: | 77 lbs/1000ft     |

Standards and Compliance

|                                |                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:     | Outdoor, Outdoor, Sunlight Resistance, UV Resistance, Aerial - When supported by messenger wire                                  |
| Sustainability:                | CA Prop 65                                                                                                                       |
| 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) |
| APAC Compliance:               | China RoHS II (GB/T 26572-2011)                                                                                                  |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.526 Revision Date: 04-29-2024 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 7810A 010500  | Black | Reel       | 500 ft   | 612825189800 | C        |
| 7810A 0101000 | Black | Reel       | 1,000 ft | 612825189794 | C        |

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