



**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)
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#### Construction Details

RG Type:	8
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#### 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)
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#### 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: 0.525 Revision Date: 04-13-2023
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### Part Numbers

#### Variants

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

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