Belden



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: 0.528 Revision Date: 09-07-2025

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

Footnote:	C - CRATE REEL PUT-UP.

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.