Product: 7810SB



50 Ohm Wireless Transmission Coax, RF 400, RG8, 10 AWG Solid BCCA, Foil + 95% TC Braid, LSZH Jkt, CMG-LS/CMR, ABS Certified

Product Description

50 Ohm Wireless Transmission Coax, RF 400, 10 AWG Solid Bare Copper Covered Aluminum, PE Insulation, Duobond® Foil + 95% Tinned Copper Braid Shield, LSZH Jacket, CMG-LS/CMR, Shipboard ABS Type Approved

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); ABS approved for marine shipboard and offshore use

Construction Details

RG Type:	8

Conductor

No. of Elements	Size	Stranding	Nom. Diameter	Material
1	10 AWG	Solid	0.108 in	BCCA - Bare Copper Covered Aluminum

Insulation

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

Insulation Table Notes:	Gas Injected

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.405 in (10.3 mm)

Overall Cable Diameter (Nominal):	0.405 in (10.3 mm)

Electrical Characteristics

VSWR

Frequency	Max. VSWR
5-6000 MHz	1.25:1

Attenuation

Frequency	Nom. Attenuation	Max. Attenuation
30 MHz	0.7 dB/100ft	0.7 dB/100ft
50 MHz	0.9 dB/100ft	0.93 dB/100ft
150 MHz	1.5 dB/100ft	1.58 dB/100ft
220 MHz	1.8 dB/100ft	1.94 dB/100ft
450 MHz	2.7 dB/100ft	2.83 dB/100ft
900 MHz	3.8 dB/100ft	4.06 dB/100ft

1500 MHz	5.1 dB/100ft	5.32 dB/100ft
1800 MHz	5.6 dB/100ft	5.98 dB/100ft
2000 MHz	6 dB/100ft	6.35 dB/100ft
2500 MHz	6.7 dB/100ft	7.08 dB/100ft
3000 MHz	7.5 dB/100ft	7.97 dB/100ft
3500 MHz	8.2 dB/100ft	8.8 dB/100ft
4500 MHz	9.5 dB/100ft	10.23 dB/100ft
5800 MHz	11.1 dB/100ft	12 dB/100ft
6000 MHz	11.4 dB/100ft	12.23 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
4,500 MHz	247 W
5,800 MHz	217 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.
1.34 Ohm/1000ft (4.40 Ohm/km)	2.0 Ohm/1000ft (6.6 Ohm/km)	23 pF/ft (75 pF/m)	50 Ohm	86%

Voltage

Voltage Rating
300 V RMS

Mechanical Characteristics

Temperature

UL Temperature	Operating
75°C	-30°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
4.00 in (102 mm)	4.00 in (102 mm)

Max. Pull Tension:	189 lbs (85.7 kg)
Bulk Cable Weight:	88 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor - Euroclass Dca, Indoor, Outdoor, Sunlight Resistance, UV Resistance, Aerial - When supported by messenger wire
Flammability / Reaction to Fire:	UL1666 Vertical Shaft, UL1685 FT4 Loading, Limited Smoke, FT4, 1202, IEC 60332-1-2, IEC 60332-3-22
CPR Compliance:	CPR Euroclass: Dca-s1,d1,a1
NEC / UL Compliance:	Article 800, CMG-LS, CMR
CEC / C(UL) Compliance:	CMG-LS
IEEE Compliance:	Std. 45 clause 23
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), 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)

History

Update and Revision:	Revision Number: 0.464 Revision Date: 02-03-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7810SB 0101000	Black	Reel	1,000 ft	612825189831	C

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