

7810SB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable

		For more Information please call 1-800-Belden1
--	--	--



Description

10 AWG solid .108" bare copper-covered aluminum conductor, gas-injected foam HDPE insulation, Duobond® II + tinned copper braid shield (95% coverage), LSZH jacket.

Suitable Applications (Overall):

Suitable Applications	Wireless RF, ABS Type Approved, CMG-LS, IEEE 45 clause 23, IEC 60092-376 clause 17, 60092-351, 60754-1, 60754-2, 61034, UL1865 FT4 Loading, Limited Smoke, IEC 60332-3-22 (Category A), 60332-1, IEEE 1202
-----------------------	--

Physical Characteristics (Overall):

Conductor:
 AWG

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	10	Solid	BCCA - Bare Copper Covered Aluminum	0.108

Insulation:

Insulation Material

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	0.285

Outer Shield:

Outer Shield Material

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

Outer Jacket:

Outer Jacket Material

Outer Jacket Material
LSZH - Low Smoke Zero Halogen

Overall Cabling:

Overall Nominal Diameter: .405 in.

Mechanical Characteristics (Overall):

Operating Temperature Range	-30°C To +75°C
UL Temperature Rating	75°C
Non-UL Temperature Rating	80°C
Bulk Cable Weight:	92 lbs/1000 ft.
Max. Recommended Pulling Tension:	150 lbs.
Min. Bend Radius (Install)/Minor Axis:	4 in.

Applicable Specifications and Agency Compliance (Overall):

Applicable Standards:

NEC/(UL) Specification	CMG-LS
CEC/C(UL) Specification	CMG-LS
IEEE Specification	Std. 45 clause 23
IEC Specification	60092-376 clause 17, 60092-351, 60754-1, 60754-2, 61034

7810SB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable

EU CE Mark (Y/N)	Yes
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy)	08/07/2006
Other Specification	UL444, ABS Type Approval Certificate 06-HS184641B/1-PDA
RG Type	8/U
Series Type	8/U

Flame Test:

UL Flame Test	UL1685 FT4 Loading, Limited Smoke
IEEE Flame Test	1202

Suitability:

Suitability - Indoor	Yes
Suitability - Outdoor	Yes
Suitability - Aerial	Yes - Black only, when supported by messenger wire.
Sunlight Resistance	Yes

Electrical Characteristics (Overall):

Nom. Characteristic Impedance

Impedance (Ohm)
50.000

Nom. Inductance

Inductance (µH/ft)
0.060

Nom. Capacitance Conductor to Shield

Capacitance (pF/ft)
23.000

Nominal Velocity of Propagation

VP (%)
86

Nominal Delay

Delay (ns/ft)
1.170

Nom. Conductor DC Resistance

DCR @ 20°C (Ohm/1000 ft)
1.340

Nominal Outer Shield DC Resistance

DCR @ 20°C (Ohm/1000 ft)
2.000

Maximum VSWR

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Max. VSWR
		5.000	6000.000	1.25:1

Nom. Attenuation

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100 ft.)
	30.000			0.700
	50.000			0.900
	150.000			1.500
	220.000			1.800
	450.000			2.700
	900.000			3.800
	1500.000			5.100
	1800.000			5.600
	2000.000			6.000

7810SB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable

	2500.000			6.700
	3000.000			7.500
	3500.000			8.200
	4500.000			9.500
	5800.000			11.100
	6000.000			11.400

Max. Attenuation

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100 ft.)
	30.000			0.700
	50.000			0.930
	150.000			1.580
	220.000			1.940
	450.000			2.830
	900.000			4.060
	1500.000			5.320
	1800.000			5.980
	2000.000			6.350
	2500.000			7.080
	3000.000			7.970
	3500.000			8.800
	4500.000			10.230
	5800.000			12.000
	6000.000			12.230

Max. Power Rating

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Rating (W)
	30.000			3427.000
	50.000			2588.000
	150.000			1428.000
	220.000			1195.000
	450.000			817.000
	900.000			575.000
	1500.000			437.000
	1800.000			399.000
	2000.000			375.000
	2500.000			334.000
	3000.000			305.000
	3500.000			282.000
	4500.000			247.000
	5800.000			217.000
	6000.000			213.000

Max. Operating Voltage - Non-UL

Voltage
300 V RMS

Sweep Test:

Sweep Testing

100% Sweep tested to 6 GHz.

PUT UPS AND COLORS:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7810SB 0101000	1,000 FT	97.000 LB	BLACK	C	#10 LDPE/GIFHLDPE SH FRNHPO BLK

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 03-11-2008

7810SB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable

© 2007 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 herein 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 "AS IS" 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 the following environmental regulations: California Proposition 65 Consent Judgment For Wire & Cable Mfgs.(San Francisco Superior Court Nos. 312962 And 320342); EU RoHS (Directive 2002/95/EC, 27-Jan-2003); Material manufactured prior to the compliance date may still be in stock at Belden facilities and in our Distributor's inventory; and China Ministry of Information Industry order#39 (China RoHS). EU ELV (Directive 2000/53/EC, 18-Sept-2000); EU WEEE (Directive 2002/96/EC, 27-Jan-2003); EU BFR (Directive 2003/11/EC, 6-Feb-2003). The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information and belief at the date of its publication. The information provided in the Product Disclosure 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. This 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.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.