



7977WB

Part Number: 7977WB

Low Loss 50 Ohm Wireless RF Transmission Cable

Product Description

5.5 AWG solid .176" bare copper-covered aluminum conductor, foam HDPE insulation, Duobond® II (100% coverage) plus a tinned copper braid shield (85% coverage), flooded water-resistant polyethylene jacket.

Product Specifications

Conductor

Total Number of Conductors:

1

Technical Specifications

APAC Standard

MIL Order #39 (China RoHS):

Yes

Bend Radius

Min Bend Radius/Minor Axis:

5.9 in

CCB-Part Number

Notes:

100% Sweep tested. Belden® The Wire in Wireless®

CCB-Sub-Part Number

Plenum (Y/N):

No

Connectors

Suggested Connectors:

Land Mobile Radio type connectors.

Contact Information

PHONE_NUM:	1-800-Belden1
------------	---------------

EMEA Standard

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
--------------------------	-------------------------------

Environmental Characteristics

Operating Temp Range:	-40°C To +80°C
-----------------------	----------------

EU Directive

EU CE Mark:	No
-------------	----

EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
---------------------------------------	------------

North American Standard

CA Prop 65 (CJ for Wire & Cable):	Yes
-----------------------------------	-----

Series Type:	RF 600
--------------	--------

Temperature Range

Non-UL Temp Rating:	80°C
---------------------	------

Use

Suitability - Aerial:	Yes - when supported by a messenger wire
-----------------------	--

Suitability - Burial:	Yes
-----------------------	-----

Suitability - Outdoor:	Yes
------------------------	-----

Max Recommended Pulling Tension:	290 lbs
----------------------------------	---------

Impedance:

Nominal Characteristic Impedance

50 Ohm

Inductance:

Nominal Inductance

0.06 μ H/ft

Conductor DCR:

Nominal Conductor DCR	Nominal Outer Shield DCR
-----------------------	--------------------------

0.53 Ohm/1000ft	1.8 Ohm/1000ft
-----------------	----------------

Power Rating:

Frequency [MHz]	Max. Power Rating [W]
30 MHz	5,057 W
220 MHz	1,975 W
450 MHz	1,353 W
900 MHz	921 W
1,500 MHz	691 W
1,800 MHz	623 W
2,000 MHz	587 W
3,500 MHz	425 W
4,500 MHz	368 W
5,800 MHz	315 W
6,000 MHz	308 W

Delay:

Nominal Delay	Nominal Velocity of Propagation (VP)
1.19 ns/ft	85 %

Voltage:

Non-UL Voltage Rating
300V RMS

VSWR:

Frequency [MHz]	Max. VSWR
2690 MHz	1.25:1
5 MHz	2.00:1
3290 MHz	1.43:1
2690 MHz	
6000 MHz	
3290 MHz	

Capacitance:**Nominal Capacitance Conductor to Shield**

24.6 pF/ft

High Frequency (Nominal/Typical):

Frequency (MHz)	Nom. Insertion Loss
30 MHz	0.46 db/100ft
50 MHz	0.61 db/100ft
150 MHz	0.98 db/100ft
220 MHz	1.18 db/100ft
450 MHz	1.72 db/100ft
900 MHz	2.54 db/100ft
1500 MHz	3.4 db/100ft
1800 MHz	3.77 db/100ft
2000 MHz	4.01 db/100ft
2500 MHz	4.58 db/100ft
3000 MHz	5.07 db/100ft
3500 MHz	5.56 db/100ft
4500 MHz	6.44 db/100ft
5800 MHz	7.56 db/100ft
6000 MHz	7.75 db/100ft

Insulation:

Material	Nominal Diameter
FHDPE - Foam High Density Polyethylene	0.455 in

Outerjacket 1:

Material	Nominal Diameter
PE - Polyethylene	0.59 in

Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Coax
-----	-----------	----------	------------------	-------------

5.5	Solid	BCCA - Bare Copper Covered Aluminum	0.176 in	1
-----	-------	-------------------------------------	----------	---

Outershield 1:

Type	Layer	Material	Material Trade Name	Coverage
Tape	1	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	Bonded Duofoil®	100 %
Braid	2	TC - Tinned Copper		85 %

Product Variants

Part Number	Color	Put-Up Type	Length
7977WB 0101000	BLACK	Reel	1000 ft
7977WB 010500	BLACK	Reel	500 ft

© 2015 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. 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 this 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.