

Product: [7809WB](#) 

RF 300 Wireless Coax, 13 AWG, Waterblocked



Product Description

Intermediate type, RF300, 13 AWG solid .072" bare copper conductor, gas-injected foam HDPE insulation, Duobond® II, tinned copper braid shield (95% coverage), flooded, water-resistant polyethylene jacket.

Technical Specifications

Product Overview

Suitable Applications:	Wireless
------------------------	----------

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
13	Solid	BC - Bare Copper	0.072 in	1

Conductor Count:	1
------------------	---

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.19 in

Table Notes:	Gas Injected
--------------	--------------

Outer Shield

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

Table Notes:	PO - Polyolefin
--------------	-----------------

Outer Jacket

Material	Nominal Diameter
PE - Polyethylene	0.3 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
2.1 Ohm/1000ft	2.4 Ohm/1000ft	2.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
23 pF/ft

Inductance

Nominal Inductance
0.06 µH/ft

Impedance

Nominal Characteristic Impedance
----------------------------------

50 Ohm
--------

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
5 MHz	0.45 dB/100ft
10 MHz	0.6 dB/100ft
30 MHz	1 dB/100ft
50 MHz	1.3 dB/100ft
150 MHz	2.2 dB/100ft
220 MHz	2.7 dB/100ft
450 MHz	3.9 dB/100ft
900 MHz	5.6 dB/100ft
1500 MHz	7.3 dB/100ft
1800 MHz	8.1 dB/100ft
2000 MHz	8.6 dB/100ft
2500 MHz	9.7 dB/100ft
3000 MHz	10.8 dB/100ft
3500 MHz	11.8 dB/100ft
4500 MHz	13.5 dB/100ft
5800 MHz	15.8 dB/100ft
6000 MHz	16 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.18 ns/ft	86%

Power Rating

Frequency [MHz]	Max. Power Rating [W]	Nominal Power Rating [W]
30 MHz	2,161 W	2,161 W
50 MHz	1,658 W	1,658 W
150 MHz	928 W	928 W
220 MHz	758 W	758 W
450 MHz	522 W	522 W
900 MHz	367 W	367 W
1,500 MHz	278 W	278 W
1,800 MHz	253 W	253 W
2,000 MHz	239 W	239 W
3,000 MHz	194 W	212 W
4,500 MHz	157 W	194 W
6,000 MHz	135 W	179 W
4,500 MHz		157 W
5,800 MHz		137 W
6,000 MHz		135 W

Voltage

Non-UL Voltage Rating
300 V RMS

VSWR

Frequency [MHz]	Max. VSWR
1 - 6000 MHz	1.25:1

Temperature Range

Operating Temp Range:	-40°C To +75°C
-----------------------	----------------

Mechanical Characteristics

Bulk Cable Weight:	53 lbs/1000ft
Max. Pull Tension:	102 lbs
Min. Bend Radius/Minor Axis:	3 in

Applicable Environmental and Other Programs

Environmental Space:	Water Exposure/Below-Grade Conduit
----------------------	------------------------------------

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - When supported by messenger wire
Suitability - Burial:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Part Number

Variants

Item #	Color	Put-Up Type	Length	UPC
7809WB 010500	Black	Reel	500 ft	612825189787
7809WB 0101000	Black	Reel	1,000 ft	612825189770
Footnote:			C - CRATE REEL PUT-UP.	

Product Notes

Notes:	Flooding grease between braid and jacket
--------	--

History

Update and Revision:	Revision Number: 0.319 Revision Date: 12-15-2021
----------------------	--

© 2022 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.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Belden Wire & Cable:

[7809WB 010500](#) [7809WB 0101000](#)