

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
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Physical Characteristics (Overall)

Conductor

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

Conductor Count:	1
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Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.19 in

Table Notes:	Gas Injected
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Outer Shield Material

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
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Outer Jacket Material

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 μ H/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
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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
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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)
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
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
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC
7809WB 010500	Black	Reel	500 ft	612825189787
7809WB 0101000	Black	Reel	1,000 ft	612825189770

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Flooding grease between braid and jacket
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History

Update and Revision:	Revision Number: 0.306 Revision Date: 03-16-2021
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