

## 7977WB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable



For more Information  
please call

1-800-Belden1

**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.

**Physical Characteristics (Overall)****Conductor****AWG:**

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	5.5	Solid	BCCA - Bare Copper Covered Aluminum	.176

**Insulation****Insulation Material:**

Insulation Material	Dia. (in.)
FHDPE - Foam High Density Polyethylene	.455

**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	85

**Outer Shield Flooding Grease:** PO - Polyolefin

**Outer Jacket****Outer Jacket Material:**

Outer Jacket Material
PE - Polyethylene

**Overall Cable**

**Overall Nominal Diameter:** 0.590 in.

**Mechanical Characteristics (Overall)**

**Operating Temperature Range:** -40°C To +80°C

**Non-UL Temperature Rating:** 80°C

**Bulk Cable Weight:** 163 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 290 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 5.900 in.

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

**EU CE Mark:** No

**EU Directive 2000/53/EC (ELV):** Yes

**EU Directive 2002/95/EC (RoHS):** Yes

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

**EU Directive 2002/96/EC (WEEE):** Yes

**7977WB Coax - Low Loss 50 Ohm Wireless RF Transmission Cable**

EU Directive 2003/11/EC (BFR): Yes

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

MII Order #39 (China RoHS): Yes

Series Type: RF 600

**Suitability**

Suitability - Outdoor: Yes

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

Suitability - Burial: Yes

**Plenum/Non-Plenum**

Plenum (Y/N): No

**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

Impedance (Ohm)

50

**Nom. Inductance:**

Inductance (μH/ft)

0.060

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)

24.6

**Nominal Velocity of Propagation:**

VP (%)

85

**Nominal Delay:**

Delay (ns/ft)

1.19

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

.53

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

1.8

**Maximum VSWR:**

Start Freq. (MHz)	Stop Freq. (MHz)	Max. VSWR
5.000	2690.000	1.25:1
2690.000	3290.000	2.00:1
3290.000	6000.000	1.43:1

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100 ft.)
30	.46
50	.61
150	.98
220	1.18
450	1.72
900	2.54
1500	3.40
1800	3.77
2000	4.01
2500	4.58
3000	5.07
3500	5.56
4500	6.44

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5800	7.56
6000	7.75

**Max. Power Rating:**

Freq. (MHz)	Rating (W)
30	5057
220	1975
450	1353
900	921
1500	691
1800	623
2000	587
3500	425
4500	368
5800	315
6000	308

**Max. Operating Voltage - Non-UL:**

Voltage
300 V RMS

**Notes (Overall)**

**Notes:** 100% Sweep tested. Belden® The Wire in Wireless®

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7977WB 0101000	1,000 FT	146.000 LB	BLACK	C	#5H GIFPE SH LDPE
7977WB 010500	500 FT	74.000 LB	BLACK	C	#5H GIFPE SH LDPE

**Notes:**

C = CRATE REEL PUT-UP.

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