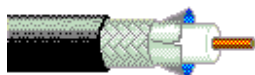


7977R Coax - Low Loss 50 Ohm Wireless RF Transmission Cable



For more Information
please call

1-800-Belden1

**General 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), PVC jacket.

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

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	5.5	Solid	BCCA - Bare Copper Covered Aluminum	4.4704

Total Number of Conductors: 1

Insulation**Insulation Material:**

Insulation Material	Dia. (mm)
FHDPE - Foam High Density Polyethylene	11.557

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 Jacket**Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 14.986 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-40°C To +80°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	238.112 Kg/Km
Max. Recommended Pulling Tension:	1289.978 N
Min. Bend Radius/Minor Axis:	152.400 mm

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

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
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

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

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

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

MII Order #39 (China RoHS): Yes

Series Type: RF 600

Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

Suitability

Suitability - Indoor: Yes

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

50

Nom. Inductance:

Inductance (µH/m)

0.19686

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

80.7126

Nominal Velocity of Propagation:

VP (%)

84

Nominal Delay:

Delay (ns/m)

3.97001

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

1.73893

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

5.9058

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/100m)
30	1.50926
50	2.00141
150	3.21538
220	3.87158
450	5.64332
900	8.33374
1500	11.1554
1800	12.3694
2000	13.1568
2500	15.027

METRIC MEASUREMENT VERSION

7977R Coax - Low Loss 50 Ohm Wireless RF Transmission Cable

3000	16.6347
3500	18.2424
4500	21.1296
5800	24.8044
6000	25.4278

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	309

Max. Operating Voltage - UL:

Voltage
300 V RMS

Notes (Overall)

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7977R 0101000	305 MT	78.925 KG	BLACK	C	#5 FPE SH FRPVC
7977R 010500	152 MT	40.824 KG	BLACK	C	#5 FPE SH FRPVC

Notes:

C = CRATE REEL PUT-UP.

Test Reports

a) UL

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CSA

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

Revision Number: 3 Revision Date: 08-15-2012

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