

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 |

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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

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.

Revision Number: 3 Revision Date: 02-08-2010

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