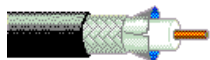


7977R Coax - Low Loss 50 Ohm Wireless RF Transmission Cable



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. (in.) |
|--------|-----|-----------|-------------------------------------|------------|
| 1 | 5.5 | Solid | BCCA - Bare Copper Covered Aluminum | .176 |

Total Number of Conductors: 1

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 Jacket

Outer Jacket Material:

| Outer Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Overall Cable

Overall Nominal Diameter: 0.590 in.

Mechanical Characteristics (Overall)

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

UL Temperature Rating: 60°C

Bulk Cable Weight: 160 lbs/1000 ft.

Max. Recommended Pulling Tension: 290 lbs.

Min. Bend Radius/Minor Axis: 6 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

EU Directive 2011/65/EU (ROHS II): Yes

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

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

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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/ft) |
| 0.060 |

Nom. Capacitance Conductor to Shield:

| |
|---------------------|
| Capacitance (pF/ft) |
| 24.6 |

Nominal Velocity of Propagation:

| |
|--------|
| VP (%) |
| 84 |

Nominal Delay:

| |
|---------------|
| Delay (ns/ft) |
| 1.21 |

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 |
| 5800 | 7.56 |
| 6000 | 7.75 |

Max. Power Rating:

| Freq. (MHz) | Rating (W) |
|-------------|------------|
| 30.000 | 5057.000 |
| 220.000 | 1975.000 |
| 450.000 | 1353.000 |
| 900.000 | 921.000 |
| 1500.000 | 691.000 |
| 1800.000 | 623.000 |
| 2000.000 | 587.000 |
| 3500.000 | 425.000 |

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| | |
|----------|---------|
| 4500.000 | 368.000 |
| 5800.000 | 315.000 |
| 6000.000 | 308.000 |

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 | 1,000 FT | 174.000 LB | BLACK | C | #5 FPE SH FRPVC |
| 7977R 010500 | 500 FT | 90.000 LB | BLACK | C | #5 FPE SH FRPVC |

Notes:

C = CRATE REEL PUT-UP.

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