

## 8281 Coax - Double Braided RG-59/U Type

For more Information  
please call

1-800-Belden1



### Description:

20 AWG solid .031" bare copper conductor, polyethylene insulation, tinned copper/bare copper double braid shield (98% coverage), polyethylene jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	20	Solid	BC - Bare Copper	.031

#### Insulation

##### Insulation Material:

Insulation Material	Dia. (in.)
PE - Polyethylene	.198

#### Outer Shield

##### Outer Shield Material:

Layer #	Type	Outer Shield Material	Coverage (%)
1	Braid	TC - Tinned Copper	98
2	Braid	TC - Tinned Copper	98

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material
PE - Polyethylene

#### Overall Cabling

Overall Nominal Diameter: 0.305 in.

### Mechanical Characteristics (Overall)

Operating Temperature Range: -55°C To +80°C

Non-UL Temperature Rating: 80°C

Bulk Cable Weight: 69 lbs/1000 ft.

Max. Recommended Pulling Tension: 116 lbs.

Min. Bend Radius (Install)/Minor Axis: 3 in.

Min. Flexing Radius: 6 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): 01/01/2004

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

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

## 8281 Coax - Double Braided RG-59/U Type

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

MII Order #39 (China RoHS): Yes

RG Type: 59/U

### Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes

Suitability - Aerial: Yes - Black only, when supported by a messenger wire

### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 88281

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)  
75

### Nom. Inductance:

Inductance (µH/ft)  
0.131

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)  
21

### Nominal Velocity of Propagation:

VP (%)  
66

### Nominal Delay:

Delay (ns/ft)  
1.54

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
9.9

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
1.1

### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1	.3
3.6	.5
10.0	.8
71.5	2.1
135	3.0
270	4.3
360	5.1
540	6.3
720	7.4
750	7.6
1000	9.2

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

Voltage  
2900 V RMS

### Other Electrical Characteristic 1:

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 1.5 Ohms

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**Other Electrical Characteristic 2:**

Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a 75 Ohm fixed bridge and termination.

**Minimum Structural Return Loss:**

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	216	27
217	850	23

**Sweep Test**

**Sweep Testing:**

100% Sweep tested 5MHz to 850MHz.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8281 0021000	1,000 FT	74.000 LB	RED	C	75 OHM VIDEO COAX
8281 002500	500 FT	37.500 LB	RED	C	75 OHM VIDEO COAX
8281 0031000	1,000 FT	74.000 LB	ORANGE	C	75 OHM VIDEO COAX
8281 0041000	1,000 FT	74.000 LB	YELLOW	C	75 OHM VIDEO COAX
8281 004500	500 FT	37.500 LB	YELLOW		75 OHM VIDEO COAX
8281 0051000	1,000 FT	74.000 LB	GREEN, DARK	C	75 OHM VIDEO COAX
8281 005500	500 FT	37.500 LB	GREEN, DARK	C	75 OHM VIDEO COAX
8281 0061000	1,000 FT	74.000 LB	BLUE, LIGHT	C	75 OHM VIDEO COAX
8281 006500	500 FT	37.500 LB	BLUE, LIGHT		75 OHM VIDEO COAX
8281 0091000	1,000 FT	74.000 LB	WHITE	C	75 OHM VIDEO COAX
8281 0101000	1,000 FT	74.000 LB	BLACK	C	75 OHM VIDEO COAX
8281 010500	500 FT	37.500 LB	BLACK	C	75 OHM VIDEO COAX
8281 0105000	5,000 FT	360.000 LB	BLACK	C Z	75 OHM VIDEO COAX

**Notes:**

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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