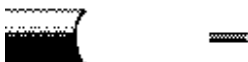


## 8281B Coax - Double Braided RG-59/U Type

For more Information  
please call

1-800-Belden1



### Description:

20 AWG solid .031" bare copper conductor, flame-retardant semi-foam polyethylene insulation, tinned copper/bare copper double braid shield (98% coverage), PVC 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.)
FR Semi-Foam PE - Flame Retardant Semi-Foam 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
PVC - Polyvinyl Chloride

#### Overall Cable

Overall Nominal Diameter: 0.305 in.

### Mechanical Characteristics (Overall)

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

UL Temperature Rating: 80°C, 75°C

Bulk Cable Weight: 79 lbs/1000 ft.

Max. Recommended Pulling Tension: 168 lbs.

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

Min. Flexing Radius: 6 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

AWM Specification: UL Style 1354

EU CE Mark: Yes

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

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

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

EU RoHS Compliance Date (mm/dd/yyyy): 10/13/2005

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

RG Type: 59/U

### Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

### Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black Only

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)

0.118

### 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	4.4
360	5.1
540	6.6
720	7.8
750	8.0

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

1000	10.2
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**Max. Operating Voltage - UL:**

Voltage
30 V RMS
300 V RMS

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

Voltage
300 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

**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. 5 MHz to 850 MHz.

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8281B 0021000	1,000 FT	83.000 LB	RED	C	#20 FRSFPE DBLB FRPVC
8281B 0041000	1,000 FT	83.000 LB	YELLOW	C	#20 FRSFPE DBLB FRPVC
8281B 0051000	1,000 FT	83.000 LB	GREEN, DARK	C	#20 FRSFPE DBLB FRPVC
8281B 0061000	1,000 FT	83.000 LB	BLUE, LIGHT	C	#20 FRSFPE DBLB FRPVC
8281B 0071000	1,000 FT	83.000 LB	VIOLET	C	#20 FRSFPE DBLB FRPVC
8281B 0081000	1,000 FT	83.000 LB	GRAY	C	#20 FRSFPE DBLB FRPVC
8281B 0091000	1,000 FT	83.000 LB	WHITE	C	#20 FRSFPE DBLB FRPVC
8281B 0101000	1,000 FT	83.000 LB	BLACK	C	#20 FRSFPE DBLB FRPVC

**Notes:**  
C = CRATE REEL PUT-UP.

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