



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



For more information please  
call

**1-800-Belden1**

See Put-ups and Colors

### Description:

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

### PHYSICAL CHARACTERISTICS:

#### CONDUCTOR:

Number of Coax	1
Total Number of Conductors	1
RG Type	59/U
AWG	20
Stranding	Solid
Conductor Diameter	.031 in.
Conductor Material	BC - Bare Copper

#### INSULATION:

Insulation Material	PE - Polyethylene
Insulation Diameter	.198 in.

#### OUTER SHIELD:

Outer Shield Type	Braid/Braid
Outer Shield Material :	

Layer Number	Trade Name	Type	Material	% Coverage (%)
1		Braid	TC - Tinned Copper	98
2		Braid	TC - Tinned Copper	98

Outer Shield % Coverage	98 %
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#### OUTER JACKET:

Outer Jacket Material	PE - Polyethylene
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#### OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter	.305 in.
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#### MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-55°C To +80°C
Non-UL Temperature Rating	80°C



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Bulk Cable Weight	68 lbs/1000 ft.
Max. Recommended Pulling Tension	116 lbs.
Min. Bend Radius (Install)	3 in.
Min. Flexing Radius	6 in.

### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

EU CE Mark (Y/N)	No
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004

#### SWEEP TEST:

Sweep Testing	100% Sweep tested 5MHz to 850MHz.
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#### SUITABILITY:

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

#### PLENUM/NON-PLENUM:

Plenum (Y/N)	N
Plenum Number	88281

#### ELECTRICAL CHARACTERISTICS:

Nom. Characteristic Impedance	75 Ohms
Nom. Inductance	0.131 $\mu$ H/ft
Nom. Capacitance Conductor to Shield	21 pF/ft
Nominal Velocity of Propagation	66 %
Nominal Delay	1.54 ns/ft
Nom. Conductor DC Resistance @ 20 Deg. C	9.9 Ohms/1000 ft
Nominal Outer Shield DC Resistance @ 20°C	1.1 Ohms/1000 ft

#### Minimum Structural Return Loss :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Minimum Structural Return Loss (dB)
		5	216	27
		217	850	23

Nom. Attenuation :



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Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Nom. 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

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

Other Electrical Characteristic 2

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

### PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
8281 0021000	75 OHM VIDEO COAX	1000	74	RED	C
8281 002500	75 OHM VIDEO COAX	500	37.5	RED	C
8281 0031000	75 OHM VIDEO COAX	1000	74	ORANGE	C
8281 003500	75 OHM VIDEO COAX	500	37.5	ORANGE	
8281 0041000	75 OHM VIDEO COAX	1000	74	YELLOW	C
8281 004500	75 OHM VIDEO COAX	500	37.5	YELLOW	
8281 0051000	75 OHM VIDEO COAX	1000	74	GREEN, DARK	C
8281 005500	75 OHM VIDEO COAX	500	37.5	GREEN, DARK	C
8281 0061000	75 OHM VIDEO COAX	1000	74	BLUE, LIGHT	C
8281 006500	75 OHM VIDEO COAX	500	37.5	BLUE, LIGHT	
8281 0091000	75 OHM VIDEO COAX	1000	74	WHITE	C
8281 0101000	75 OHM VIDEO COAX	1000	74	BLACK	C
8281 010500	75 OHM VIDEO COAX	500	37.5	BLACK	C

C = CRATE REEL PUT-UP.



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