

8281 Coax - Double Braided RG-59/U Type

For more Information
please call

1-800-Belden1

**General 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

Total Number of Conductors: 1

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 Cable

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/Minor Axis: 3 in.

Min. Flexing Radius: 6 in.

Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

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): 01/01/2004

8281 Coax - Double Braided RG-59/U Type

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

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

8281 Coax - Double Braided RG-59/U Type**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 5MHz to 850MHz.

Put up and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8281 0021000	1,000 FT	73.000 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	73.000 LB	ORANGE	C	75 OHM VIDEO COAX
8281 0041000	1,000 FT	73.000 LB	YELLOW	C	75 OHM VIDEO COAX
8281 004500	500 FT	37.500 LB	YELLOW		75 OHM VIDEO COAX
8281 0051000	1,000 FT	73.000 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	73.000 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	73.000 LB	WHITE	C	75 OHM VIDEO COAX
8281 0101000	1,000 FT	73.000 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	380.000 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.

Revision Number: 2 Revision Date: 05-14-2007

© 2013 Belden, Inc.
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.