



**Part Number: 8281**

Precision Video Coax, RG59, 20 AWG Solid BC, Double 98% Braid

**Product Description**

Precision Video Coax, 20 AWG solid .031" bare copper conductor, polyethylene insulation, tinned copper/bare copper double braid shield (95% coverage), polyethylene jacket.

**Technical Specifications**

**Product Overview**

Environmental Space:	Outdoor - Aerial
Suitable Applications:	Analog Video

**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	Nominal Diameter	No. of Coax
20	Solid	BC - Bare Copper	0.031 in	1

Conductor Count:	1
Conductor Size:	20 AWG

**Insulation**

Material	Nominal Diameter
PE - Polyethylene	0.198 in

**Outer Shield Material**

Type	Layer	Material	Coverage [%]
Braid	1	TC - Tinned Copper	95 %
Braid	2	TC - Tinned Copper	95 %

**Outer Jacket Material**

Material	Nominal Diameter
PE - Polyethylene	0.305 in

**Electrical Characteristics**

**Conductor DCR**

Nominal Conductor DCR	Nominal Outer Shield DCR
9.9 Ohm/1000ft	1.1 Ohm/1000ft

**Capacitance**

Nom. Capacitance Conductor to Shield
21 pF/ft

**Inductance**

Nominal Inductance
0.131 µH/ft

**Impedance**

Nominal Characteristic Impedance
----------------------------------

75 Ohm

#### Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5 MHz - 216 MHz	27 dB
216 MHz - 850 MHz	23 dB

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.3 dB/100ft
3.6 MHz	0.5 dB/100ft
10 MHz	0.8 dB/100ft
71.5 MHz	2.1 dB/100ft
135 MHz	3 dB/100ft
270 MHz	4.3 dB/100ft
360 MHz	5.1 dB/100ft
540 MHz	6.3 dB/100ft
720 MHz	7.4 dB/100ft
750 MHz	7.6 dB/100ft
1000 MHz	9.2 dB/100ft

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.54 ns/ft	66 %

#### Voltage

Non-UL Voltage Rating
2900 V RMS

Electrical Characteristics Notes: Return Loss: Fixed bridge and termination

#### Temperature Range

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

#### Mechanical Characteristics

Bulk Cable Weight:	69 lbs/1000ft
Max Recommended Pulling Tension:	168 lbs
Min Bend Radius/Minor Axis:	3 in

#### Standards

RG Type:	59/U Type
----------	-----------

#### Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

#### Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only
Suitability - Sunlight Resistance:	No

## Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	88281

## Part Number

### Variants

Item #	Color	UPC	Length	Footnote
8281 0101000	Black	612825358091	1,000 ft	C
8281 010500	Black	612825358626	500 ft	C
8281 0105000	Black	612825355809	5,000 ft	C Z
8281 0061000	Blue, Light	612825355724	1,000 ft	C
8281 006500	Blue, Light	612825355816	500 ft	
8281 0051000	Green, Dark	612825355830	1,000 ft	C
8281 005500	Green, Dark	612825355823	500 ft	C
8281 0031000	Orange	612825355861	1,000 ft	C
8281 0021000	Red	612825355885	1,000 ft	C
8281 002500	Red	612825355878	500 ft	C
8281 0091000	White	612825358725	1,000 ft	C
8281 0041000	Yellow	612825355854	1,000 ft	C
8281 004500	Yellow	612825355847	500 ft	

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

© 2019 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 here in 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 "ASIS" 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 all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information 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. The 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.