



**Product:** [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

Suitable Applications:	Analog Video
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#### Physical Characteristics (Overall)

##### Conductor

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

Conductor Count:	1
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##### Insulation

Material	Nominal Diameter
PE - Polyethylene	0.198 in

##### Outer Shield Material

Type	Layer	Material	Coverage [%]
Braid	1	Tinned Copper (TC)	95%
Braid	2	Tinned Copper (TC)	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 $\mu$ H/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
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## 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. Pull Tension:	168 lbs
Min Bend Radius/Minor Axis:	3 in

## Standards

RG Type:	59/U Type
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## Applicable Environmental and Other Programs

Environmental Space:	Outdoor - Aerial
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
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	Putup Type	Length	UPC
8281 010500	Black	Reel	500 ft	612825358626
8281 0101000	Black	Reel	1,000 ft	612825358091
8281 0105000	Black	Reel	5,000 ft	612825355809
8281 006500	Blue, Light	Reel	500 ft	612825355816
8281 0061000	Blue, Light	Reel	1,000 ft	612825355724
8281 005500	Green, Dark	Reel	500 ft	612825355823
8281 0051000	Green, Dark	Reel	1,000 ft	612825355830
8281 0031000	Orange	Reel	1,000 ft	612825355861
8281 002500	Red	Reel	500 ft	612825355878
8281 0021000	Red	Reel	1,000 ft	612825355885
8281 0091000	White	Reel	1,000 ft	612825358725
8281 004500	Yellow	Reel	500 ft	612825355847
8281 0041000	Yellow	Reel	1,000 ft	612825355854

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.

## History

Update and Revision:	Revision Number: 0.275 Revision Date: 04-28-2020
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