



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 μ 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

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
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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	Footnote
8281 0101000	Black	C
8281 010500	Black	C
8281 0105000	Black	C Z
8281 0061000	Blue, Light	C
8281 006500	Blue, Light	
8281 0051000	Green, Dark	C
8281 005500	Green, Dark	C
8281 0031000	Orange	C
8281 0021000	Red	C
8281 002500	Red	C
8281 0091000	White	C
8281 0041000	Yellow	C
8281 004500	Yellow	

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.

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