



## Description:

20 AWG solid .031" bare copper conductor, polyethylene insulation, tinned copper/bare copper 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

### Insulation

**Insulation Material:**

Insulation Material	Dia. (in.)
PE - Polyethylene	.200

### 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 Cabling

**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:** 164 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 3 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

**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

**EU Directive 2002/96/EC (WEEE):** Yes

**EU Directive 2003/11/EC (BFR):** Yes

**CA Prop 65 (CJ for Wire & Cable):** Yes

## 9141 Coax - Double Braided RG-59/U Type

MII Order #39 (China RoHS):	Yes
RG Type:	59/U

### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Aerial:	No

### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)
75

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
20

### 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	0.3
3.6	0.5
10.0	0.8
71.5	2.0
135	3.5
270	4.3
360	5.0
540	6.2
720	7.2
750	7.4
1000	9.1

### Max. Operating Voltage - Non-UL:

Voltage
1700 V RMS

**Other Electrical Characteristic 1:** Impedance Tested in accord with ASTM D-4566 Paragraph 43.2, Option 2 using a 75 Ohm fixed bridge and termination.

**Other Electrical Characteristic 2:** Return Loss Tested in accord with ASTM D-4566 Paragraph 45.3, using a 75 Ohm fixed bridge and termination.

### Minimum Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5	216	27
217	850	23

## 9141 Coax - Double Braided RG-59/U Type

### Sweep Test

**Sweep Testing:** 100% Sweep tested 5 MHz to 850 MHz.

### Notes (Overall)

**Notes:** Dielectric Strength: 8 kV.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9141 3681000	1,000 FT	73.000 LB	CLEAR, TRANSPARENT	C	75 OHM VIDEO COAX

**Notes:**

C = CRATE REEL PUT-UP.

# Precision Video Cable for Analog and Digital

## RG-59/U Type



Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**20 AWG Solid .031" Bare Copper Conductor • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage) (continued)**

<b>Polyethylene Insulation • Clear Polyethylene Jacket</b>																			
Indoor Use 80°C	<b>9141</b>	—	1000	304.8	73.0	33.2	20 AWG (solid) .031"	.200	5.06	TC Double Braid 98% Shield Coverage 1.1Ω/M' 3.6Ω/km	.305	7.75	75	66%	20.0	65.6	1	.3	1.0
																	3.6	.5	1.6
																	10.0	.8	2.6
																	71.5	2.0	6.6
																	135	3.5	11.5
																	270	4.3	14.1
																	360	5.0	16.4
																	540	6.2	20.3
																	720	7.2	23.6
																	750	7.4	24.3
																	1000	9.1	29.8



**20 AWG Solid .031" Bare Copper Conductor • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage)**

<b>Polyethylene Insulation • Polyethylene Jacket (Available in Red, Yellow, Green, Blue, White, Orange or Black)</b>																			
80°C	<b>8281</b>	—	500 <sup>▲</sup> 1000	152.4 304.8	37.5 74.0	17.8 33.6	20 AWG (solid) .031"	.198	5.03	TC Double Braid 98% Shield Coverage 1.1Ω/M' 3.6Ω/km	.305	7.75	75	66%	21.0	68.9	1	.3	.8
																	3.6	.5	1.8
																	10.0	.8	2.6
																	71.5	2.1	6.9
																	135	3.0	9.8
																	270	4.3	14.1
																	360	5.1	16.6
																	540	6.3	20.7
																	720	7.4	24.3
																	750	7.6	24.9
																	1000	9.2	30.2

<sup>▲</sup>500 ft. put-up not available in White.



**Flame-retardant Semi-foam Polyethylene Insulation • PVC Jacket (Available in 9 colors)\***

UL AWM Style 1354 (30V 80°C)	<b>8281B</b>	NEC: CMR CEC: CMG FT4	1000	304.8	84.0	38.1	20 AWG (solid) .031"	.198	5.03	TC Double Braid 98% Shield Coverage 1.1Ω/M' 3.6Ω/km	.305	7.75	75	66%	21.0	68.9	1	.3	.8
																	3.6	.5	1.8
																	10.0	.8	2.6
																	71.5	2.1	6.9
																	135	3.0	9.8
																	270	4.4	14.4
																	360	5.1	16.6
																	540	6.6	21.5
																	720	7.8	25.4
																	750	8.0	26.2
																	1000	10.2	33.5

\*8281B available in Red, Orange, Yellow, Green, Blue, Purple, Gray, White or Black.



**22 AWG Stranded (7x29) .031" Bare Compacted Copper Conductor\* • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage)**

<b>Polyethylene Insulation • PVC Jacket (Matte Red, Blue, Green, Gray or Black)</b>																			
High-Flex 60°C	<b>8281F</b>	—	500 <sup>•</sup> 1000	152.4 304.8	34.5 67.0	15.7 30.4	22 AWG (7x29) .031"	.193	4.90	TC Double Braid 98% Shield Coverage 1.7Ω/M' 5.6Ω/km	.305	7.75	75	66%	21.0	68.9	1	.3	.9
																	3.6	.5	1.7
																	10.0	.9	2.9
																	71.5	2.5	8.0
																	135	3.6	11.6
																	270	5.1	16.7
																	360	6.0	19.7
																	540	7.4	24.3
																	720	8.7	28.5
																	750	8.9	29.2
																	1000	10.5	34.4

<sup>•</sup>500 ft. put-up available in Black only.



**20 AWG Solid .032" Bare Copper Conductor • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage)**

<b>Plenum • FEP Insulation • Black Fluorocopolymer Jacket</b>																			
150°C	<b>88281</b>	NEC: CMP CEC: CMP FT6	500 1000	152.4 304.8	44.5 86.0	20.2 39.1	20 AWG (solid) .032"	.185	4.70	TC Double Braid 98% Shield Coverage 1.1Ω/M' 3.6Ω/km	.271	6.88	75	71%	19.0	62.4	1	.2	.7
																	3.6	.5	1.6
																	10.0	.8	2.6
																	71.5	2.3	7.5
																	135	3.3	10.8
																	270	5.1	16.7
																	360	6.1	20.0
																	540	8.0	26.2
																	720	9.7	31.8
																	750	10.0	32.8
																	1000	12.3	40.3

Suitable for Outdoor and Direct Burial applications.

BC = Bare Copper • BCC = Bare Compacted Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • HDPE = High-density Polyethylene • TC = Tinned Copper

\*Compacted conductor combines impedance uniformity of solid conductors and "nick-resistance" of stranded conductor.