

Part Number: 8281B

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



Product Description

20 AWG solid .031" bare copper conductor, flame-retardant semi-foam polyethylene insulation, tinned copper/bare copper double braid shield (95% coverage), PVC jacket.

Technical Specifications

Construction and Dimensions

Conductor:

| AWG | Stranding | Material | Nominal Diameter | No. of Coax |
|-----------------------------|-----------|------------------|------------------|-------------|
| 20 | Solid | BC - Bare Copper | 0.031 in | 1 |
| Total Number of Conductors: | | | 1 | |

Insulation:

| Material | Nominal Diameter |
|--|------------------|
| FR Semi-Foam PE - Flame Retardant Semi-Foam Polyethylene | 0.198 in |

Outershield 1:

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

Outerjacket 1:

| Material | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 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 |

| | |
|---|---|
| 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. |
|---|--|

| | |
|-----------------------|--------------------------------------|
| Sweep Testing: | 100% sweep tested. 5 MHz to 850 MHz. |
|-----------------------|--------------------------------------|

Impedance:

| Nominal Characteristic Impedance |
|----------------------------------|
| 75 Ohm |

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 | 4.4 dB/100ft |
| 360 MHz | 5.1 dB/100ft |
| 540 MHz | 6.6 dB/100ft |
| 720 MHz | 7.8 dB/100ft |
| 750 MHz | 8 dB/100ft |
| 1000 MHz | 10.2 dB/100ft |

Delay:

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

High Freq:

| Min. SRL (Structural Return Loss) |
|-----------------------------------|
| 27 dB |
| 23 dB |

Inductance:

| Nominal Inductance | |
|--------------------|--|
| 0.118 μ H/ft | |

Voltage:

| Non-UL Voltage Rating | UL Voltage Rating |
|-----------------------|-------------------|
| 300V RMS | 30V RMS V |
| | 300V RMS |

Use

| | |
|----------------------------------|--|
| Suitability - Aerial: | Yes - Black only, when supported by a messenger wire |
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes - Black Only |
| Max Recommended Pulling Tension: | 168 lbs |

Safety

| | |
|-------------------|-----------------------|
| CSA Flammability: | FT4 |
| UL Flammability: | UL1666 Vertical Shaft |

Temperature Range

| | |
|-----------------------|-------------------|
| Operating Temp Range: | -40°C To +80°C °C |
| UL Temp Rating: | 75°C 80 °C |

Mechanical Characteristics

| | |
|-----------------------------|------|
| Min Bend Radius/Minor Axis: | 3 in |
| Min Flexing Radius: | 6 in |

Part Number

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

Standards

| | |
|-----------------------------------|------|
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| CEC/C(UL) Specification: | CMG |
| MII Order #39 (China RoHS): | Yes |
| NEC/(UL) Specification: | CMR |
| RG Type: | 59/U |

| | |
|--------------------------|-------------------------------|
| UL AWM Style: | UL Style 1354 |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |

Product Variants

| Part Number | Color | Put-Up Type | Length |
|---------------|-------------|-------------|---------|
| 8281B | RED | Reel | 1000 ft |
| 8281B | RED | Reel | 305 m |
| 8281B 0021000 | RED | Reel | 1000 ft |
| 8281B | YELLOW | Reel | 1000 ft |
| 8281B | YELLOW | Reel | 305 m |
| 8281B 0041000 | YELLOW | Reel | 1000 ft |
| 8281B | GREEN, DARK | Reel | 1000 ft |
| 8281B | GREEN, DARK | Reel | 305 m |
| 8281B 0051000 | GREEN, DARK | Reel | 1000 ft |
| 8281B | BLUE, LIGHT | Reel | 1000 ft |
| 8281B 0061000 | BLUE, LIGHT | Reel | 1000 ft |
| 8281B | VIOLET | Reel | 1000 ft |
| 8281B | PURPLE | Reel | 305 m |
| 8281B 0071000 | VIOLET | Reel | 1000 ft |
| 8281B | GRAY | Reel | 1000 ft |
| 8281B 0081000 | GRAY | Reel | 1000 ft |
| 8281B | WHITE | Reel | 1000 ft |
| 8281B | WHITE | Reel | 305 m |
| 8281B 0091000 | WHITE | Reel | 1000 ft |
| 8281B | BLACK | Reel | 1000 ft |
| 8281B | BLACK | Reel | 305 m |
| 8281B 0101000 | BLACK | Reel | 1000 ft |
| 8281B | | | |

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