

**Product:** <u>88281</u> ☑





## **Product Description**

20 AWG solid .032" bare copper conductor, plenum, FEP insulation, tinned copper braid shields (95% coverage), fluorocopolymer jacket.

## **Technical Specifications**

## **Physical Characteristics (Overall)**

# Conductor AWG Stranding Material Nominal Diameter No. of Coax 20 Solid BC - Bare Copper 0.032 in 1 Conductor Count: 1

| Material                             | Nominal Diameter |
|--------------------------------------|------------------|
| FEP - Fluorinated Ethylene Propylene | 0.185 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 |
|--------------------------------|------------------|
| PVDF - Polyvinylidene Fluoride | 0.271 in         |

#### **Electrical Characteristics**

## Conductor DCR

| Nominal Conductor<br>DCR | Nominal Conductor DCR Conductor Resistance | Nominal Outer Shield DCR | Outer Conductor DCR |
|--------------------------|--|--------------------------|---------------------|
| 9.9 Ohm/1000ft           | 9.9 Ohm/1000ft                             | 1.1 Ohm/1000ft           | 1.1 Ohm/1000ft      |

## Capacitance

Nom. Capacitance Conductor to Shield 19 pF/ft

# Inductance

Nominal Inductance 0.125 µH/ft

#### Impedance

Nominal Characteristic Impedance
75 Ohm

#### Return Loss (RL)

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

# High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz           | 0.2 dB/100ft        |
| 3.6 MHz         | 0.5 dB/100ft        |
| 10 MHz          | 0.8 dB/100ft        |
| 71.5 MHz        | 2.3 dB/100ft        |
| 135 MHz         | 3.3 dB/100ft        |
| 270 MHz         | 5.1 dB/100ft        |
| 360 MHz         | 6.1 dB/100ft        |
| 540 MHz         | 8 dB/100ft          |
| 720 MHz         | 9.7 dB/100ft        |
| 750 MHz         | 10 dB/100ft         |
| 1000 MHz        | 12.3 dB/100ft       |

## Delay

Nominal Delay 1.43 ns/ft

#### Voltage

| Non-UL Voltage Rating | UL Voltage Rating |
|-----------------------|-------------------|
| 2900 V RMS            | 300 V RMS         |

# **Temperature Range**

| UL Temp Rating:       | 150°C           |
|-----------------------|-----------------|
| Operating Temp Range: | -20°C To +150°C |

#### **Mechanical Characteristics**

| Bulk Cable Weight:          | 82 lbs/1000ft |
|-----------------------------|---------------|
| Max. Pull Tension:          | 168 lbs       |
| Min Bend Radius/Minor Axis: | 2.75 in       |

## **Standards**

| NEC/(UL) Compliance:  | CMP       |
|-----------------------|-----------|
| CEC/C(UL) Compliance: | CMP       |
| RG Type:              | 59/U Type |

# **Applicable Environmental and Other Programs**

| Environmental Space:                  | Outdoor - Direct Burial       |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):        | Yes                           |
| EU Directive 2003/11/EC (BFR):        | Yes                           |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | No                            |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2005-04-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

# Suitability

| Suitability - Aerial:  | Yes - When supported by messenger wire |
|------------------------|--|
| Suitability - Burial:  | Yes                                    |
| Suitability - Indoor:  | Yes                                    |
| Suitability - Outdoor: | Yes                                    |

# Flammability, LS0H, Toxicity Testing

| UL Flammability:   | NFPA 262  |
|--------------------|-----------|
| UL voltage rating: | 300 V RMS |

## Plenum/Non-Plenum

| Plenum (Y/N): | Yes |
|---------------|-----|
|               |     |

#### **Part Number**

| Non-Plenum Number: | 8281 |
|--------------------|------|
|                    |      |

#### Variants

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 88281 010500  | Black | Reel       | 500 ft   | 612825218302 |
| 88281 0101000 | Black | Reel       | 1,000 ft | 612825216964 |

Footnote: C - CRATE REEL PUT-UP.

#### **History**

| Update and Revision: | Revision Number: 0.279 Revision Date: 08-25-2020 |  |  |
|----------------------|--|--|--|

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