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1-800-Belden1



General Description:

20 AWG solid .031" bare copper conductor, polyethylene insulation, tinned copper/bare copper double braid shield (95% coverage), polyethylene jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|--------------------|-----------|
| 1 | 20 | Solid | BC - Bare Copper | 0.7874 |

Total Number of Conductors: 1

Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|---------------------|-----------|
| PE - Polyethylene | 5.0292 |

Outer Shield

Outer Shield Material:

| Layer # | Type | Outer Shield Material | Coverage (%) |
|---------|-------|-----------------------|--------------|
| 1 | Braid | TC - Tinned Copper | 95.000 |
| 2 | Braid | TC - Tinned Copper | 95.000 |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|-----------------------|
| PE - Polyethylene |

Overall Cable

Overall Nominal Diameter: 7.747 mm

Mechanical Characteristics (Overall)

Operating Temperature Range: -55°C To +80°C

Non-UL Temperature Rating: 80°C

Bulk Cable Weight: 102.686 Kg/Km

Max. Recommended Pulling Tension: 747.298 N

Min. Bend Radius/Minor Axis: 76.200 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

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

MIL Order #39 (China RoHS): Yes

RG Type: 59/U

Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 88281

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.429811

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
68.901

Nominal Velocity of Propagation:

VP (%)
66

Nominal Delay:

Delay (ns/m)
5.05274

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
32.4819

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
3.6091

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1 | 0.9843 |
| 3.6 | 1.6405 |
| 10.0 | 2.6248 |
| 71.5 | 6.8901 |
| 135 | 9.843 |
| 270 | 14.1083 |
| 360 | 16.7331 |
| 540 | 20.6703 |
| 720 | 24.2794 |
| 750 | 24.9356 |
| 1000 | 30.1852 |

Max. Operating Voltage - Non-UL:

Voltage
2900 V RMS

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.

Minimum Structural Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. SRL (dB) |
|-------------------|------------------|---------------|
| 5 | 216 | 27 |
| 217 | 850 | 23 |

Sweep Test

Sweep Testing:

100% Sweep tested 5MHz to 850MHz.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------------|----------|-------------|-------------|-------|-------------------|
| 600006215 | 1 EA | 0.416 LB | | | RSTS 5-183/3 M |
| 8281 0021000 | 1,000 FT | 73.000 LB | RED | C | 75 OHM VIDEO COAX |
| 8281 002500 | 500 FT | 37.500 LB | RED | C | 75 OHM VIDEO COAX |
| 8281 0031000 | 1,000 FT | 73.000 LB | ORANGE | C | 75 OHM VIDEO COAX |
| 8281 0041000 | 1,000 FT | 73.000 LB | YELLOW | C | 75 OHM VIDEO COAX |
| 8281 004500 | 500 FT | 37.500 LB | YELLOW | | 75 OHM VIDEO COAX |
| 8281 0051000 | 1,000 FT | 73.000 LB | GREEN, DARK | C | 75 OHM VIDEO COAX |
| 8281 005500 | 500 FT | 37.500 LB | GREEN, DARK | C | 75 OHM VIDEO COAX |
| 8281 0061000 | 1,000 FT | 73.000 LB | BLUE, LIGHT | C | 75 OHM VIDEO COAX |
| 8281 006500 | 500 FT | 37.500 LB | BLUE, LIGHT | | 75 OHM VIDEO COAX |
| 8281 0091000 | 1,000 FT | 73.000 LB | WHITE | C | 75 OHM VIDEO COAX |

METRIC MEASUREMENT VERSION

8281 Coax - Double Braided RG-59/U Type

| | | | | | |
|--------------|----------|------------|-------|-----|-------------------|
| 8281 0101000 | 1,000 FT | 73.000 LB | BLACK | C | 75 OHM VIDEO COAX |
| 8281 010500 | 500 FT | 37.500 LB | BLACK | C | 75 OHM VIDEO COAX |
| 8281 0105000 | 5,000 FT | 380.000 LB | BLACK | C Z | 75 OHM VIDEO COAX |

Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Revision Number: 2 Revision Date: 07-29-2013

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