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## General Description:

Miniature, 23 AWG solid .023" bare copper conductors, solid copper, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), overall PVC jacket.

## Physical Characteristics (Overall)

### Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|--------------------|-----------|
| 6      | 23  | Solid     | BC - Bare Copper   | 0.5842    |

Total Number of Conductors: 6

### Insulation

Insulation Material:

| Insulation Material                                 | Dia. (mm) |
|---|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 2.5908    |

### Inner Shield

Inner Shield Material:

| Layer # | Inner Shield Trade Name | Type  | Inner Shield Material                      | Coverage (%) |
|---------|-------------------------|-------|--|--------------|
| 1       | Duofoil®                | Tape  | Aluminum Foil-Polyester Tape-Aluminum Foil | 100          |
| 2       |                         | Braid | TC - Tinned Copper                         | 95           |

### Inner Jacket

Inner Jacket Material:

| Inner Jacket Material    | Nom. Dia. (mm) |
|--------------------------|----------------|
| PVC - Polyvinyl Chloride | 4.0386         |

Inner Jacket Color Code Chart:

| Number | Color  |
|--------|--------|
| 1      | Red    |
| 2      | Green  |
| 3      | Blue   |
| 4      | White  |
| 5      | Yellow |
| 6      | Brown  |

### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

### Overall Cable

Overall Nominal Diameter: 15.164 mm

## Mechanical Characteristics (Overall)

Operating Temperature Range: -35°C To +75°C

UL Temperature Rating: 60°C

Non-UL Temperature Rating: 75°C

Bulk Cable Weight: 241.088 Kg/Km

|                                   |            |
|-----------------------------------|------------|
| Max. Recommended Pulling Tension: | 960.811 N  |
| Min. Bend Radius/Minor Axis:      | 152.400 mm |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

|                                       |            |
|---------------------------------------|------------|
| NEC/(UL) Specification:               | CMR        |
| CEC/C(UL) Specification:              | CMG        |
| EU Directive 2011/65/EU (ROHS II):    | Yes        |
| EU CE Mark:                           | Yes        |
| 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        |
| MII Order #39 (China RoHS):           | Yes        |
| RG Type:                              | Mini       |

### Flame Test

|                 |                       |
|-----------------|-----------------------|
| UL Flame Test:  | UL1666 Vertical Shaft |
| CSA Flame Test: | FT4                   |

### Suitability

|                        |     |
|------------------------|-----|
| Suitability - Indoor:  | Yes |
| Suitability - Outdoor: | Yes |

### Plenum/Non-Plenum

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

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

75

### Nom. Inductance:

Inductance (µH/m)

0.347786

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

54.1365

### Nominal Velocity of Propagation:

VP (%)

83

### Nominal Delay:

Delay (ns/m)

4.06844

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

65.9481

### Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km)

24.9356

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1.000       | 1.312                 |
| 3.600       | 2.625                 |
| 10.000      | 3.937                 |
| 71.500      | 10.171                |
| 135.000     | 12.468                |
| 270.000     | 17.717                |
| 360.000     | 20.342                |
| 540.000     | 25.264                |
| 720.000     | 29.857                |
| 750.000     | 31.170                |
| 1000.000    | 34.451                |
| 1500.000    | 42.653                |
| 2500.000    | 55.449                |
| 3000.000    | 60.699                |
| 4500.000    | 80.713                |

**Max. Operating Voltage - UL:**

| Voltage   |
|-----------|
| 300 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.

**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 Return Loss:**

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5.000             | 1600.000         | 23.000       |
| 1600.000          | 4500.000         | 21.000       |

**Sweep Test**

**Sweep Testing:** Sweep tested 5 MHz to 4.5 GHz.

**Put Ups and Colors:**

| Item #        | Putup  | Ship Weight | Color        | Notes | Item Desc                   |
|---------------|--------|-------------|--------------|-------|-----------------------------|
| 7790A B591000 | 305 MT | 80.740 KG   | BLACK, MATTE | C     | 6 #23 PE/GIFHDPE SH PVC PVC |
| 7790A B59500  | 152 MT | 40.824 KG   | BLACK, MATTE | C     | 6 #23 PE/GIFHDPE SH PVC PVC |

**Notes:**

C = CRATE REEL PUT-UP.

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