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1-800-Belden1



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.

Usage (Overall)

Suitable Applications: SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p, SDI/HDTV Digital Video, High Definition (HD), Standard Definition (SDI)

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 5 | 23 | Solid | BC - Bare Copper | .023 |

Total Number of Conductors: 5

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---|------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | .102 |

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. (in.) |
|--------------------------|-----------------|
| PVC - Polyvinyl Chloride | .159 |

Inner Jacket Color Code Chart:

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

Outer Jacket

Outer Jacket Material:

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

Overall Cable

Overall Nominal Diameter: 0.539 in.

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 136 lbs/1000 ft.

Max. Recommended Pulling Tension: 180 lbs.

Min. Bend Radius/Minor Axis: 5.500 in.

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 - Black only. |
| Suitability - Burial: | No |

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

| |
|------------------------|
| Impedance (Ohm) |
| 75 |

Nom. Inductance:

| |
|---------------------------|
| Inductance (µH/ft) |
| 0.106 |

Nom. Capacitance Conductor to Shield:

| |
|----------------------------|
| Capacitance (pF/ft) |
| 16.5 |

Nominal Velocity of Propagation:

| |
|---------------|
| VP (%) |
| 83 |

Nominal Delay:

| |
|----------------------|
| Delay (ns/ft) |
| 1.24 |

Nom. Conductor DC Resistance:

| |
|---------------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 20.1 |

Nom. Inner Shield DC Resistance:

| |
|---------------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 7.6 |

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 1.000 | 0.400 |
| 3.600 | 0.800 |
| 10.000 | 1.200 |
| 71.500 | 3.100 |
| 135.000 | 3.800 |
| 270.000 | 5.400 |
| 360.000 | 6.200 |
| 540.000 | 7.700 |
| 720.000 | 9.100 |
| 750.000 | 9.500 |
| 1000.000 | 10.500 |
| 1500.000 | 13.000 |
| 2500.000 | 16.900 |
| 3000.000 | 18.500 |
| 4500.000 | 24.600 |

| | |
|----------|--------|
| 6000.000 | 28.970 |
|----------|--------|

Max. Operating Voltage - UL:

| |
|----------------|
| Voltage |
| 300 V RMS |

Other Electrical Characteristic 1:

TDR Impedance: 75 +/- 3 Ohms

Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5.000 | 1600.000 | 23.000 |
| 1600.000 | 4500.000 | 21.000 |
| 4500.000 | 6000.000 | 15.000 |

Sweep Test

Sweep Testing:

Sweep tested 5 MHz to 6 GHz.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|--------------|-------|-----------------------------|
| 7789A B591000 | 1,000 FT | 151.000 LB | BLACK, MATTE | C | 5 #23 PE/GIFHDPE SH PVC PVC |
| 7789A B59500 | 500 FT | 75.500 LB | BLACK, MATTE | C | 5 #23 PE/GIFHDPE SH PVC PVC |

Notes:

C = CRATE REEL PUT-UP.

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