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please call

1-800-Belden1



## General Description:

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

## Usage (Overall)

Suitable Applications: SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p

## Physical Characteristics (Overall)

### Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 1      | 23  | Solid     | BC - Bare Copper   | .023       |

Total Number of Conductors: 1

### Insulation

Insulation Material:

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

### Outer Shield

Outer Shield Material:

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

### Outer Jacket

Outer Jacket Material:

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

### Overall Cable

Overall Nominal Diameter: 0.159 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 17 lbs/1000 ft.

Max. Recommended Pulling Tension: 40 lbs.

Min. Bend Radius/Minor Axis: 1.500 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: Sub-miniature 59/U

**Flame Test**

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

**Suitability**

Suitability - Indoor: Yes

**Plenum/Non-Plenum**

Plenum (Y/N): No

Plenum Number: 1855P

**Electrical Characteristics (Overall)**

**Nom. Characteristic Impedance:**

Impedance (Ohm)

75

**Nom. Inductance:**

Inductance (µH/ft)

.107

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)

16.3

**Nominal Velocity of Propagation:**

VP (%)

82

**Nominal Delay:**

Delay (ns/ft)

1.22

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

20.1

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 1.000       | 0.390                    |
| 3.580       | 0.780                    |
| 5.000       | 0.920                    |
| 6.000       | 1.000                    |
| 7.000       | 1.080                    |
| 10.000      | 1.200                    |
| 12.000      | 1.300                    |
| 25.000      | 1.800                    |
| 67.500      | 2.830                    |
| 71.500      | 2.930                    |
| 88.500      | 3.220                    |
| 100.000     | 3.390                    |
| 135.000     | 3.840                    |
| 143.000     | 4.000                    |
| 180.000     | 4.410                    |
| 270.000     | 5.440                    |
| 360.000     | 6.340                    |
| 540.000     | 7.850                    |
| 720.000     | 9.150                    |
| 750.000     | 9.310                    |
| 1000.000    | 10.890                   |
| 1500.000    | 13.380                   |
| 2000.000    | 15.640                   |
| 2250.000    | 16.680                   |
| 3000.000    | 19.650                   |
| 4500.000    | 24.350                   |
| 6000.000    | 28.970                   |

**Max. Operating Voltage - UL:**

Voltage

300 V RMS

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

## 1855A Coax - Sub-Miniature

Other Electrical Characteristic 1:

ILR Impedance: 75 +/- 1.5 Ohms

Other Electrical Characteristic 2:

Return Loss: Fixed bridge and termination.

### Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5.000             | 1600.000         | 23.000       |
| 1601.000          | 4500.000         | 21.000       |
| 4500.000          | 6000.000         | 15.000       |

### Sweep Test

Sweep Testing:

100#37; Sweep tested 5 MHz to 6 GHz.

### Misc. Information (Overall)

### Notes (Overall)

Notes: Also available in 4.5 GHz multi-coax bundled versions. See 7787A through 7792A.

### Put Ups and Colors:

| Item #         | Putup    | Ship Weight | Color       | Notes | Item Desc                |
|----------------|----------|-------------|-------------|-------|--------------------------|
| 1855A N3UN1000 | 1,000 FT | 21.000 LB   | GREEN, MIL  |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A N3U1000  | 1,000 FT | 19.000 LB   | GREEN, MIL  | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 001N1000 | 1,000 FT | 21.000 LB   | BROWN       |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0011000  | 1,000 FT | 19.000 LB   | BROWN       | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 002N1000 | 1,000 FT | 21.000 LB   | RED         |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0021000  | 1,000 FT | 19.000 LB   | RED         | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 003N1000 | 1,000 FT | 21.000 LB   | ORANGE      |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0031000  | 1,000 FT | 19.000 LB   | ORANGE      | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 004N1000 | 1,000 FT | 21.000 LB   | YELLOW      |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0041000  | 1,000 FT | 19.000 LB   | YELLOW      | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 006N1000 | 1,000 FT | 21.000 LB   | BLUE, LIGHT |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0061000  | 1,000 FT | 19.000 LB   | BLUE, LIGHT | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 007N1000 | 1,000 FT | 21.000 LB   | VIOLET      |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0071000  | 1,000 FT | 19.000 LB   | VIOLET      | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 008N1000 | 1,000 FT | 21.000 LB   | GRAY        |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0081000  | 1,000 FT | 19.000 LB   | GRAY        | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 009N1000 | 1,000 FT | 21.000 LB   | WHITE       |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0091000  | 1,000 FT | 19.000 LB   | WHITE       | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 010N1000 | 1,000 FT | 21.000 LB   | BLACK       |       | #23 PE/GIFHDPE SH FR PVC |
| 1855A 0101000  | 1,000 FT | 19.000 LB   | BLACK       | C     | #23 PE/GIFHDPE SH FR PVC |
| 1855A 010500   | 500 FT   | 9.500 LB    | BLACK       |       | #23 PE/GIFHDPE SH FR PVC |

### Notes:

C = CRATE REEL PUT-UP.

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