

4855R Coax - 4K Ultra-High-Definition Coax Cable for 12G-SDI - Mini



For more Information
please call

1-800-Belden1



General Description:

12 GHz, 4K UHD Precision Video Cable, 75 Ohm, 23 AWG solid .023" silver plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to the core + tinned copper braid shield (95% coverage), PVC jacket.

Usage (Overall)

Suitable Applications: SMPTE 2082-1 12 Gb/s UHD TV, SMPTE 2081-1 6 Gb/s UHD TV, SMPTE 424M 3 Gb/s HD-SDI 1080p

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|----------------------------|-----------|
| 1 | 23 | Solid | SPC - Silver Plated Copper | 0.584 |

Total Number of Conductors: 1

Insulation

Insulation Material:

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

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) | Description |
|---------|-------------------------|-------|--|--------------|----------------------|
| 1 | Bonded Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100.000 | Bonded to insulation |
| 2 | | Braid | TC - Tinned Copper | 95.000 | |

Outer Jacket

Outer Jacket Material:

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

Overall Cable

Overall Nominal Diameter: 4.039 mm

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 25.299 Kg/Km

Max. Recommended Pulling Tension: 177.928 N

Min. Bend Radius/Minor Axis: 40.640 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/(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): 11/08/2016

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

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RG Type: Sub-miniature 59/U

Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black only.

Suitability - Aerial: Yes - Black only, when supported by messenger wire.

Suitability - Burial: No

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/m)

0.351067

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

53.4803

Nominal Velocity of Propagation:

VP (%)

82

Nominal Delay:

Delay (ns/m)

4.068

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

64.636

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

12.796

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1.000 | 1.280 |
| 3.580 | 2.559 |
| 5.000 | 3.019 |
| 6.000 | 3.281 |
| 7.000 | 3.543 |
| 10.000 | 3.937 |
| 12.000 | 4.265 |
| 25.000 | 5.906 |
| 55.000 | 8.531 |
| 67.500 | 9.285 |
| 71.500 | 9.613 |
| 88.500 | 10.565 |
| 100.000 | 11.123 |
| 135.000 | 12.599 |
| 143.000 | 13.124 |
| 180.000 | 14.469 |
| 270.000 | 17.849 |
| 360.000 | 20.802 |
| 540.000 | 25.756 |
| 720.000 | 29.824 |
| 750.000 | 30.448 |
| 1000.000 | 35.435 |
| 1500.000 | 43.309 |
| 2000.000 | 50.199 |
| 2250.000 | 53.480 |

METRIC MEASUREMENT VERSION

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| | |
|-----------|---------|
| 3000.000 | 62.339 |
| 4500.000 | 77.432 |
| 6000.000 | 90.884 |
| 12000.000 | 135.177 |

Max. Operating Voltage - UL:

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

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 | 12000.000 | 15.000 |

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 12 GHz.

Notes (Overall)

Notes: Print legend includes sequential footage marks.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------------|-------|-----------------------|
| 4855R N3U1000 | 1,000 FT | 19.000 LB | GREEN, MIL | | #23 PE/GIFHDPE SH PVC |
| 4855R 0021000 | 1,000 FT | 19.000 LB | RED | | #23 PE/GIFHDPE SH PVC |
| 4855R 0031000 | 1,000 FT | 19.000 LB | ORANGE | | #23 PE/GIFHDPE SH PVC |
| 4855R 0041000 | 1,000 FT | 19.000 LB | YELLOW | | #23 PE/GIFHDPE SH PVC |
| 4855R 0061000 | 1,000 FT | 19.000 LB | BLUE, LIGHT | | #23 PE/GIFHDPE SH PVC |
| 4855R 0071000 | 1,000 FT | 19.000 LB | VIOLET | | #23 PE/GIFHDPE SH PVC |
| 4855R 0101000 | 1,000 FT | 19.000 LB | BLACK | | #23 PE/GIFHDPE SH PVC |
| 4855R 0105000 | 5,000 FT | 90.000 LB | BLACK | C Z | #23 PE/GIFHDPE SH PVC |

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.

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