Product: 4855R [

## 4K UHD Coax for 12G-SDI, 75 Ohm, Mini RG-59, 23 AWG Solid SC, Foil + 95\% TC Braid, PVC Jkt, CMR

## Product Description

12 GHz, 4K UHD Precision Video Cable, Mini RG-59, 75 Ohm 23 AWG solid 0.023 " silver-plated copper conductor, gas-injected foamed high-density polyethylene insulation, Duofoil® bonded to the core + tinned copper braid shield (95\% coverage), PVC Jacket

## Technical Specifications

Product Overview
Suitable Applications: Ultra-High Definition Digital Video, 4K Single-link 12 Gb/s UHDTV, 4K D-Cinema, 8K Quad-link UHDTV, HD-SDI 1080p

Construction Details
RG Type: $\quad$ Mini 59

## Conductor

| Size | Stranding | Nom. Diameter | Material |
| :---: | :--- | :--- | :--- |
| 23 AWG | Solid | 0.023 in | SC - Silvered Copper |

Insulation

| Material | Nom. Insulation Diameter | Color Code | Notes |
| :---: | :--- | :--- | :--- |
| PE - Polyethylene (Foam) | 0.102 in $(2.59 \mathrm{~mm})$ | White | Gas Injected |

Outer Shield

| Layer | Outer Shield Type | Material |  | Material Trade Name | Coverage |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Tape | Tri-Laminate (Alum+Poly+Alum) | Duobond® II | $100 \%$ |  |
| 2 | Braid | Tinned Copper (TC) |  | $95 \%$ |  |

Outer Jacket

| Material | Nom. Diameter |
| :--- | :---: |
| PVC - Polyvinyl Chloride | $0.159 \mathrm{in}(4.04 \mathrm{~mm})$ |
| Overall Cable Diameter (Nominal): $0.159 \mathrm{in}(4.04 \mathrm{~mm})$ |  |

Electrical Characteristics

Return Loss (RL)

| Frequency | Min. Return Loss |
| :--- | :--- |
| $5-1600 \mathrm{MHz}$ | 23 dB |
| $1600-4500 \mathrm{MHz}$ | 21 dB |
| $4500-12000 \mathrm{MHz}$ | 15 dB |

Attenuation

| Frequency | Nom. Attenuation |
| :--- | :--- |
| 1 MHz | $0.39 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 3.58 MHz | $0.78 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 5 MHz | $0.92 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 6 MHz | $1 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 7 MHz | $1.08 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 10 MHz | $1.2 \mathrm{~dB} / 100 \mathrm{ft}$ |


| 12 MHz | $1.3 \mathrm{~dB} / 100 \mathrm{ft}$ |
| :--- | :--- |
| 25 MHz | $1.8 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 55 MHz | $2.6 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 67.5 MHz | $2.83 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 71.5 MHz | $2.93 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 88.5 MHz | $3.22 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 100 MHz | $3.39 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 135 MHz | $3.84 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 143 MHz | $4.00 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 180 MHz | $4.41 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 270 MHz | $5.44 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 360 MHz | $6.34 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 540 MHz | $7.85 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 720 MHz | $9.09 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 750 MHz | $9.28 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 1000 MHz | $10.8 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 1500 MHz | $13.2 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 2000 MHz | $15.3 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 2250 MHz | $16.3 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 3000 MHz | $19.0 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 4500 MHz | $23.6 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 6000 MHz | $27.7 \mathrm{~dB} / 100 \mathrm{ft}$ |
| 12000 MHz | $41.2 \mathrm{~dB} / 100 \mathrm{ft}$ |

Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
| :--- | :---: | :--- | :--- | :--- |
| 19.7 Ohm/1000ft | 3.8 Ohm/1000ft $(12 \mathrm{Ohm} / \mathrm{km})$ | $16.3 \mathrm{pF} / \mathrm{ft}(53.5 \mathrm{pF} / \mathrm{m})$ | 75 Ohm | $82 \%$ |

Voltage

| UL Voltage Rating |
| :---: |
| 300 V RMS (CMR, CMG |

Mechanical Characteristics

## Temperature

| UL Temperature | Operating |
| :--- | :---: |
| $60^{\circ} \mathrm{C}$ | $-30^{\circ} \mathrm{C}$ to $+75^{\circ} \mathrm{C}$ |

## Bend Radius

| Installation Min. |  |
| :--- | :--- |
| 1.6 in $(41 \mathrm{~mm})$ |  |
| Max. Pull Tension: | $33 \mathrm{lbs}(15 \mathrm{~kg})$ |
| Bulk Cable Weight: | $17 \mathrm{lbs} / 1000 \mathrm{ft}$ |

Standards and Compliance

| Environmental Suitability: | Indoor - Riser, Indoor, Aerial - Black only, When supported by messenger wire |
| :--- | :--- |
| Sustainability: | CA Prop 65 |
| Flammability / Reaction to Fire: | UL1666 Vertical Shaft |
| CPR Compliance: | CPR Euroclass: Eca; CPR UKCA Class: Eca |
| NEC / UL Compliance: | CMR |
| CEC / C(UL) Compliance: | CMG |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Plenum Number: | $4855 P$ |

History
Update and Revision: Revision Number: 0.388 Revision Date: 04-26-2023

Part Numbers

| Item \# | Color | Putup Type | Length | UPC |
| :--- | :--- | :--- | :--- | :--- |
| 4855R 0101000 | Black | Reel | $1,000 \mathrm{ft}$ | 612825390572 |
| 4855R 0105000 | Black | Reel | $5,000 \mathrm{ft}$ | 612825390589 |
| 4855R 01010000 | Black | Reel | $10,000 \mathrm{ft}$ | 612825436362 |
| 4855R 0061000 | Blue, Light | Reel | $1,000 \mathrm{ft}$ | 612825395362 |
| 4855R 0065000 | Blue, Light | Reel | $5,000 \mathrm{ft}$ | 612825436591 |
| 4855R 00610000 | Blue, Light | Reel | $10,000 \mathrm{ft}$ | 612825436218 |
| 4855R N3U5000 | Green, Mil | Reel | $5,000 \mathrm{ft}$ | 612825436652 |
| 4855R N3U10000 | Green, Mil | Reel | $10,000 \mathrm{ft}$ | 612825436447 |
| 4855R N3U1000 | Mil Green | Reel | $1,000 \mathrm{ft}$ | 612825395355 |
| 4855R 0031000 | Orange | Reel | $1,000 \mathrm{ft}$ | 612825395249 |
| 4855R 0035000 | Orange | Reel | $5,000 \mathrm{ft}$ | 612825436560 |
| 4855R 00310000 | Orange | Reel | $10,000 \mathrm{ft}$ | 612825436195 |
| 4855R 0071000 | Purple | Reel | $1,000 \mathrm{ft}$ | 612825395263 |
| 4855R 0021000 | Red | Reel | $1,000 \mathrm{ft}$ | 612825395232 |
| 4855R 0025000 | Red | Reel | $5,000 \mathrm{ft}$ | 612825436522 |
| 4855R 00210000 | Red | Reel | $10,000 \mathrm{ft}$ | 612825436164 |
| 4855R 0075000 | Violet | Reel | $5,000 \mathrm{ft}$ | 612825436607 |
| 4855R 00710000 | Violet | Reel | $10,000 \mathrm{ft}$ | 612825436225 |
| 4855R 0095000 | White | Reel | $5,000 \mathrm{ft}$ | 612825436645 |
| 4855R 00910000 | White | Reel | $10,000 \mathrm{ft}$ | 612825436461 |
| 4855R 0041000 | Yellow | Reel | $1,000 \mathrm{ft}$ | 612825395256 |
| 4855R 0045000 | Yellow | Reel | $5,000 \mathrm{ft}$ | 612825436584 |
| 4855R 00410000 | Yellow | Reel | $10,000 \mathrm{ft}$ | 612825436201 |
|  |  |  |  |  |

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