



Part Number: 2183R

4K UHD Media Cable, 4 Pair 23 AWG, PVC Jacket, CMR

Product Description

4K UHD Media Cable, 4-Pair, F/UTP O/A Foil Shielded, Riser CMR-LP (0.6A), 23 AWG Solid Bare Copper Conductors, Helical TC Drain, Solid Polyolefin Insulation, FR Polypropylene Rod Filler, Corrugated Flex Shield, Rip Cord, PVC Jacket

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Environmental Space: | Indoor - Riser |
| Suitable Applications: | HDBaseT, Full 5-Play, 4K (UHD/DCI), POH, POE |

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | No. of Pairs |
|-----|-----------|------------------|--------------|
| 23 | Solid | BC - Bare Copper | 4 |

| | |
|------------------------|---|
| Conductor Count: | 8 |
| Total Number of Pairs: | 4 |

Insulation

| Material | |
|-----------------|-----|
| PO - Polyolefin | |
| Bonded-Pair: | Yes |

Color Chart

| Number | Color |
|--------|------------------------------|
| 1 | White/Blue Stripe & Blue |
| 2 | White/Orange Stripe & Orange |
| 3 | White/Green Stripe & Green |
| 4 | White/Brown Stripe & Brown |

Outer Shield Material

| Type | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG |
|-----------------|--------------------|---------------------|--------------|--------------------|---------------|
| Corrugated Tape | Aluminum/Polyester | Beldfoil® | 100 % | TC - Tinned Copper | 26 |

Outer Jacket Material

| Material | Nominal Diameter | Ripcord |
|--------------------------|------------------|---------|
| PVC - Polyvinyl Chloride | 0.290 in | Yes |

Electrical Characteristics

Conductor DCR

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 93.8 Ohm/km | 5 % |

Capacitance

| Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|----------------------------|-------------------------|
| 330 pF/100m | 15 pF/ft |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|---------------|-----------------|--|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 72 % |

High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--------------------------------------|
| 1 MHz | 2.0 dB/100m | 65.3 dB | 62.3 dB | 63.3 dB | 60.3 dB | 63.8 dB | 60.8 dB | 20.0 dB | 100 +/- 15 |
| 4 MHz | 3.8 dB/100m | 56.3 dB | 53.3 dB | 52.5 dB | 49.5 dB | 51.8 dB | 48.8 dB | 23.0 dB | 100 +/- 15 |
| 8 MHz | 5.3 dB/100m | 51.8 dB | 48.8 dB | 46.5 dB | 43.5 dB | 45.7 dB | 42.7 dB | 24.5 dB | 100 +/- 15 |
| 10 MHz | 5.9 dB/100m | 50.3 dB | 47.3 dB | 44.4 dB | 41.4 dB | 43.8 dB | 40.8 dB | 25.0 dB | 100 +/- 15 |
| 16 MHz | 7.5 dB/100m | 47.2 dB | 44.2 dB | 39.8 dB | 36.8 dB | 39.7 dB | 36.7 dB | 25.0 dB | 100 +/- 15 |
| 20 MHz | 8.4 dB/100m | 45.8 dB | 42.8 dB | 37.4 dB | 34.4 dB | 37.8 dB | 34.8 dB | 25.0 dB | 100 +/- 15 |
| 25 MHz | 9.3 dB/100m | 44.3 dB | 41.3 dB | 35.0 dB | 32.0 dB | 35.8 dB | 32.8 dB | 24.3 dB | 100 +/- 15 |
| 31.25 MHz | 10.5 dB/100m | 42.9 dB | 39.9 dB | 32.4 dB | 29.4 dB | 33.9 dB | 30.9 dB | 23.6 dB | 100 +/- 15 |
| 62.5 MHz | 14.8 dB/100m | 38.4 dB | 35.4 dB | 23.6 dB | 20.6 dB | 27.9 dB | 24.9 dB | 21.5 dB | 100 +/- 15 |
| 100 MHz | 18.8 dB/100m | 35.3 dB | 32.3 dB | 16.5 dB | 13.5 dB | 23.8 dB | 20.8 dB | 20.1 dB | 100 +/- 15 |
| 125 MHz | 21.0 dB/100m | 33.8 dB | 30.8 dB | 12.8 dB | 9.8 dB | 21.9 dB | 18.9 dB | 19.4 dB | 100 +/- 22 |
| 155 MHz | 23.4 dB/100m | 32.4 dB | 29.4 dB | 9.0 dB | 6.0 dB | 20.0 dB | 17.0 dB | 18.8 dB | 100 +/- 22 |
| 175 MHz | 24.9 dB/100m | 31.7 dB | 28.7 dB | 6.8 dB | 3.8 dB | 18.9 dB | 15.9 dB | 18.4 dB | 100 +/- 22 |
| 200 MHz | 26.6 dB/100m | 30.8 dB | 27.8 dB | 4.1 dB | 1.1 dB | 17.8 dB | 14.8 dB | 18.0 dB | 100 +/- 22 |
| 250 MHz | 29.8 dB/100m | 29.3 dB | 26.3 dB | | | 15.8 dB | 12.8 dB | 17.3 dB | 100 +/- 22 |
| 300 MHz | 32.7 dB/100m | 28.1 dB | 25.1 dB | | | 14.3 dB | 11.3 dB | 16.8 dB | 100 +/- 22 |
| 400 MHz | 35.4 dB/100m | 27.1 dB | 24.1 dB | | | 12.9 dB | 9.9 dB | 16.3 dB | 100 +/- 22 |
| 450 MHz | 37.9 dB/100m | 26.3 dB | 23.3 dB | | | 11.8 dB | 8.8 dB | 15.9 dB | 100 +/- 32 |
| 500 MHz | 42.5 dB/100m | 24.8 dB | 21.8 dB | | | 9.8 dB | 6.8 dB | 15.2 dB | 100 +/- 32 |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V RMS |

Temperature Range

| | |
|--------------------------|----------------|
| Installation Temp Range: | 0°C To +75°C |
| UL Temp Rating: | 90°C |
| Storage Temp Range: | -20°C To +75°C |
| Operating Temp Range: | -20°C To +75°C |

Mechanical Characteristics

| | |
|--------------------------------------|------------------------------|
| Cold Bend Test: | -20°C Compliance per UL 1581 |
| Bulk Cable Weight: | 37 lbs/1000ft |
| Max Recommended Pulling Tension: | 45 lbs |
| Min Bend Radius During Installation: | 3.0 in |
| Min Bend Radius/Minor Axis: | 1.25 in |

Standards

| | |
|--------------------------|---|
| NEC/(UL) Specification: | CMR |
| CEC/C(UL) Specification: | CMR |
| ISO/IEC Compliance: | 11801 ed 2.2 (2011) Class D |
| CPR Euroclass: | Eca |
| IEEE Specification: | POE per 802.3af & POE+ 802.3at-2009 |
| Other Standards: | C(UL)US CMR 90C OR (UL) CMR-LP (0.6A) OR CL3R-LP (0.6A) OR POH, HDBaseT Recommended Cable |

Applicable Environmental and Other Programs

| | |
|------------------------------------|-----|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| EU Directive 2003/96/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |

| | |
|--|------------|
| EU Directive Compliance: | Yes |
| EU CE Mark: | Yes |
| EU REACH SVHC Compliance (yyyy-mm-dd): | 2017-07-10 |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01 |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |

Suitability

| | |
|------------------------------------|-----|
| Suitability - Aerial: | No |
| Suitability - Burial: | No |
| Suitability - Hazardous Locations: | No |
| Suitability - Indoor: | Yes |
| Suitability - Non-Halogenated: | No |
| Suitability - Oil Resistance: | No |
| Suitability - Outdoor: | No |
| Suitability - Sunlight Resistance: | No |

Flammability, LSOH, Toxicity Testing

| | |
|-----------------------|---------------|
| UL Flammability: | UL 1666 Riser |
| ISO/IEC Flammability: | IEC 60332-1-2 |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

| | |
|----------------|-------|
| Plenum (Y/N): | No |
| Plenum Number: | 2183P |

Part Number

Variants

| Item # | Color | UPC | Length |
|----------------|-------------|--------------|----------|
| 2183R 0101000 | Black | 612825391746 | 1,000 ft |
| 2183R 010A1000 | Black | 612825391739 | 1,000 ft |
| 2183R 0105000 | Black | 612825398776 | 5,000 ft |
| 2183R 010Z1000 | Black | 612825433330 | 1,000 ft |
| 2183R 006A1000 | Blue, Light | 612825391715 | 1,000 ft |
| 2183R 006Z1000 | Blue, Light | 612825433316 | 1,000 ft |
| 2183R 009A1000 | White | 612825391722 | 1,000 ft |
| 2183R 009Z1000 | White | 612825433323 | 1,000 ft |

Product Notes

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| Notes: | Values Above 100 MHz are for Engineering Information Only. Print Includes Descending Footage Markings. |
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History

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| Update and Revision: | Revision Number: 0.226 Revision Date: 08-22-2019 |
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