



**Part Number: 2183P**

**4K UHD Media Cable, 4 Pair 23 AWG, Flamarrest® Jacket, CMP**

## Product Description

4K UHD Media Cable, 4-Pair, F/UTP O/A Foil Shielded, Plenum CMP-LP (0.6A), 23 AWG Solid Bare Copper Conductors, Helical TC Drain, Solid FEP Insulation, FEP Rod Filler, Corrugated Flex Shield, Rip Cord, Flamarrest® Jacket

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Environmental Space:   | Indoor - Plenum                              |
| 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      |
| Conductor Size:        | 23 AWG |

#### Insulation

| Material                             |
|--------------------------------------|
| FEP - Fluorinated Ethylene Propylene |

#### 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                              | Material Trade Name | Nominal Diameter | Ripcord |
|---------------------------------------|---------------------|------------------|---------|
| LS PVC - Low Smoke Polyvinyl Chloride | Flamarrest®         | 0.260 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                |

|            |                      |
|------------|----------------------|
| Shielding: | F/UTP - Overall Foil |
|------------|----------------------|

## High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz           | 2 dB/100m           |
| 4 MHz           | 3.8 dB/100m         |
| 8 MHz           | 4.3 dB/100m         |
| 10 MHz          | 5.9 dB/100m         |
| 16 MHz          | 7.5 dB/100m         |
| 20 MHz          | 8.3 dB/100m         |
| 25 MHz          | 9.3 dB/100m         |
| 31.2 MHz        | 10.4 dB/100m        |
| 62.5 MHz        | 14.8 dB/100m        |
| 100 MHz         | 18.8 dB/100m        |
| 125 MHz         | 21 dB/100m          |
| 155 MHz         | 23 dB/100m          |
| 175 MHz         | 24.9 dB/100m        |

## 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:               | 36 lbs/1000ft                |
| Max Recommended Pulling Tension: | 45 lbs                       |
| Min Bend Radius/Minor Axis:      | 1.0 in                       |
| Min Bend Radius/Installation:    | 2.75 in                      |

## Standards

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

### 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, LS0H, Toxicity Testing

|                    |                          |
|--------------------|--------------------------|
| UL Flammability:   | NFPA 262 Plenum (UL 910) |
| CSA Flammability:  | FT6                      |
| UL voltage rating: | 300 V RMS                |

### Plenum/Non-Plenum

|               |     |
|---------------|-----|
| Plenum (Y/N): | Yes |
|---------------|-----|

### Part Number

|                    |       |
|--------------------|-------|
| Non-Plenum Number: | 2183R |
|--------------------|-------|

### Variants

| Item #         | Color |
|----------------|-------|
| 2183P 0101000  | Black |
| 2183P 010A1000 | Black |
| 2183P 010A250  | Black |
| 2183P D15A1000 | Blue  |
| 2183P 009A1000 | White |

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