

**Product:** [7789A](#) 



VideoFLEX® Snake, Sub-miniature, #23-5 Coax, CMR

## Product Description

Digital Coax Snake Cable, Riser-CMR, 5-Sub-miniature 23 AWG, solid bare copper conductors, foam HDPE core, Duofoil® +95% tinned copper braid, PVC jacket

## Technical Specifications

### Product Overview

|                        |                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p, SDI/HDTV Digital Video, High Definition (HD), Standard Definition (SDI) |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------|

### Physical Characteristics (Overall)

#### Conductor

| AWG | Stranding | Material         | Nominal Diameter | No. of Coax |
|-----|-----------|------------------|------------------|-------------|
| 23  | Solid     | BC - Bare Copper | 0.023 in         | 5           |

|                  |   |
|------------------|---|
| Conductor Count: | 5 |
|------------------|---|

#### Insulation

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.102 in         |

|              |              |
|--------------|--------------|
| Table Notes: | Gas Injected |
|--------------|--------------|

#### Color Chart

| Number | Color  |
|--------|--------|
| 1      | Red    |
| 2      | Green  |
| 3      | Blue   |
| 4      | White  |
| 5      | Yellow |

#### Inner Shield

| Type  | Layer | Material                      | Material Trade Name | Coverage [%] |
|-------|-------|-------------------------------|---------------------|--------------|
| Tape  | 1     | Tri-Laminate (Alum+Poly+Alum) | Duofoil®            | 100%         |
| Braid | 2     | Tinned Copper (TC)            |                     | 95%          |

#### Inner Jacket

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.159 in         |

#### Outer Jacket

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.539 in         |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR | Nominal Conductor DCR | Conductor Resistance | Nominal Inner Shield DCR | Outer Conductor DCR |
|-----------------------|-----------------------|----------------------|--------------------------|---------------------|
| 20.1 Ohm/1000ft       | 20.1 Ohm/1000ft       |                      | 7.6 Ohm/1000ft           | 7.6 Ohm/1000ft      |

Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 16.5 pF/ft                           |

Inductance

| Nominal Inductance |
|--------------------|
| 0.106 µH/ft        |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 75 Ohm                           |

Return Loss (RL)

| Frequency [MHz] | Minimum Return (RL) |
|-----------------|---------------------|
| 5-1600 MHz      | 23 dB               |
| 1600-4500 MHz   | 21 dB               |
| 4500-6000 MHz   | 15 dB               |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz           | 0.4 dB/100ft        |
| 3.6 MHz         | 0.8 dB/100ft        |
| 10 MHz          | 1.2 dB/100ft        |
| 71.5 MHz        | 3.1 dB/100ft        |
| 135 MHz         | 3.8 dB/100ft        |
| 270 MHz         | 5.4 dB/100ft        |
| 360 MHz         | 6.2 dB/100ft        |
| 540 MHz         | 7.7 dB/100ft        |
| 720 MHz         | 9.1 dB/100ft        |
| 750 MHz         | 9.5 dB/100ft        |
| 1000 MHz        | 10.5 dB/100ft       |
| 1500 MHz        | 13 dB/100ft         |
| 2500 MHz        | 16.9 dB/100ft       |
| 3000 MHz        | 18.5 dB/100ft       |
| 4500 MHz        | 24.6 dB/100ft       |
| 6000 MHz        | 28.97 dB/100ft      |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|------------------------------------------|
| 1.24 ns/ft    | 83%                                      |

Voltage

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

|                                   |                              |
|-----------------------------------|------------------------------|
| Electrical Characteristics Notes: | TDR Impedance: 75 +/- 3 Ohms |
|-----------------------------------|------------------------------|

Temperature Range

|                       |                |
|-----------------------|----------------|
| Non-UL Temp Rating:   | 75°C           |
| UL Temp Rating:       | 60°C           |
| Operating Temp Range: | -35°C To +75°C |

Mechanical Characteristics

|                              |                |
|------------------------------|----------------|
| Bulk Cable Weight:           | 136 lbs/1000ft |
| Max. Pull Tension:           | 180 lbs        |
| Min. Bend Radius/Minor Axis: | 5.5 in         |

Standards

|                       |         |
|-----------------------|---------|
| NEC/(UL) Compliance:  | CMR     |
| CEC/C(UL) Compliance: | CMG     |
| CPR Euroclass:        | Eca     |
| RG Type:              | Mini 59 |

Applicable Environmental and Other Programs

|                                              |                               |
|----------------------------------------------|-------------------------------|
| Environmental Space:                         | Indoor/Outdoor                |
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/11/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |
| MII Order #39 (China RoHS):                  | Yes                           |

Suitability

|                        |                  |
|------------------------|------------------|
| Suitability - Burial:  | No               |
| Suitability - Indoor:  | Yes              |
| Suitability - Outdoor: | Yes - Black only |

Flammability, LSOH, Toxicity Testing

|                    |                       |
|--------------------|-----------------------|
| UL Flammability:   | UL1666 Vertical Shaft |
| CSA Flammability:  | FT4                   |
| IEC Flammability:  | IEC 60332-1-2         |
| UL voltage rating: | 300 V RMS             |

Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Part Number

Variants

| Item #        | Color        | Put-Up Type | Length   | UPC          |
|---------------|--------------|-------------|----------|--------------|
| 7789A B59500  | Black, Matte | Reel        | 500 ft   | 612825355410 |
| 7789A B591000 | Black, Matte | Reel        | 1,000 ft | 612825357940 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.360 Revision Date: 09-10-2021 |
|----------------------|--------------------------------------------------|

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