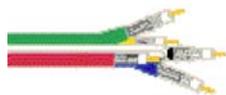


1694S6 Coax - VideoFLEX® Snake Cable for Precision Analog & Digital Video



Description:

18 AWG solid .040" bare copper conductors, gas-injected foam HDPE insulation, Duofoil® (100% Coverage) plus a tinned copper braid shield (95% coverage), individual PVC jackets.

Usage (Overall)

Suitable Applications: RGB, VGA, SVGA, XGA, SXGA, UXGA, HDTV, LCD, Plasma, Digital Signage, Component Video, Video Mult, Animation, Special Effects, Suitable for use in Risers

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 6 | 18 | Solid | BC - Bare Copper | .040 |

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---|------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | .180 |

Inner Shield

Inner Shield Material:

| Layer # | Inner Shield Trade Name | Type | Inner Shield Material | Coverage (%) |
|---------|-------------------------|-------|--|--------------|
| 1 | Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100 |
| 2 | | Braid | TC - Tinned Copper | 95 |

Inner Jacket

Inner Jacket Material:

| Inner Jacket Material | Nom. Dia. (in.) |
|--------------------------|-----------------|
| PVC - Polyvinyl Chloride | .274 |

Inner Jacket Color Code Chart:

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

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|-----------------------|
| Unjacketed |

Overall Cabling

Overall Cabling Fillers: Bonded Spline

Overall Nominal Diameter: 0.822 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -35°C To +75°C

1694S6 Coax - VideoFLEX® Snake Cable for Precision Analog & Digital Video

| | |
|--|------------------|
| UL Temperature Rating: | 60°C |
| Non-UL Temperature Rating: | 75°C |
| Bulk Cable Weight: | 291 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 432 lbs. |
| Min. Bend Radius (Install)/Minor Axis: | 10 in. |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|------------|
| NEC/(UL) Specification: | CMR |
| CEC/C(UL) Specification: | CMG |
| 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): | 01/01/2004 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| RG Type: | 6/U |

Flame Test

| | |
|----------------|-----------------------|
| UL Flame Test: | UL1666 Vertical Shaft |
|----------------|-----------------------|

Suitability

| | |
|------------------------|-----|
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes |

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.107

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.2

Nominal Velocity of Propagation:

VP (%)

82

Nominal Delay:

Delay (ns/ft)

1.24

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

6.4

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

1694S6 Coax - VideoFLEX® Snake Cable for Precision Analog & Digital Video

2.8

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 1.000 | 0.240 |
| 3.580 | 0.440 |
| 5.000 | 0.520 |
| 7.000 | 0.610 |
| 10.000 | 0.710 |
| 67.500 | 1.650 |
| 71.500 | 1.690 |
| 88.500 | 1.860 |
| 100.000 | 1.950 |
| 135.000 | 2.240 |
| 143.000 | 2.300 |
| 180.000 | 2.570 |
| 270.000 | 3.170 |
| 360.000 | 3.690 |
| 540.000 | 4.600 |
| 720.000 | 5.380 |
| 750.000 | 5.500 |
| 1000.000 | 6.420 |
| 1500.000 | 7.990 |
| 2000.000 | 9.370 |
| 2250.000 | 10.010 |
| 3000.000 | 11.780 |
| 4500.000 | 14.920 |

Max. Operating Voltage - UL:

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

Other Electrical Characteristic 1: Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination.

Other Electrical Characteristic 2: Return Loss Tested in Accordance With ASTM D-4566 Paragraph 45.3, Using a 75 Ohm Fixed Bridge and Termination.

Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5 | 430 | 20 |
| 430 | 510 | 15 |
| 510 | 1600 | 20 |
| 1600 | 4500 | 15 |

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 4.5 GHz.

Notes (Overall)

Notes: US PATENT 7049523

Put Ups and Colors:

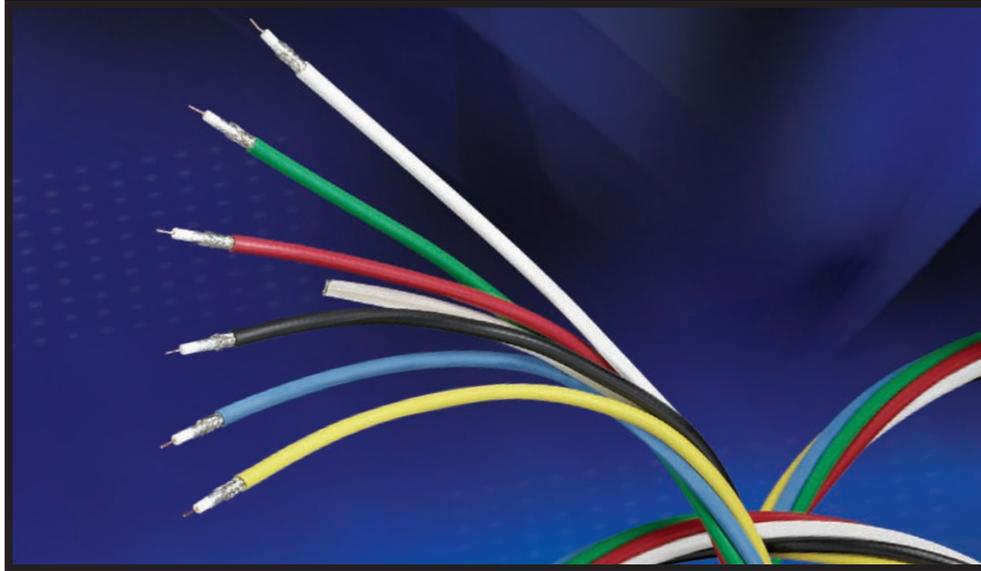
| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------|-------|-------------------------|
| 1694S6 0001000 | 1,000 FT | 333.000 LB | NONE | C | BONDED FILLER COMPOSITE |
| 1694S6 000500 | 500 FT | 185.500 LB | NONE | C | BONDED FILLER COMPOSITE |

Notes:
C = CRATE REEL PUT-UP.

NP 258

Brilliance® Banana Peel Precision Video Snake Cables

New Banana Peel Composite cable constructions now feature three of Belden's most popular SDI/HD coaxes: 1855A, 1505A and 1694A. This gives you outstanding digital video performance using multiple coaxes in a single pull.



Belden Brilliance Banana Peel Precision Video Snake Cable Line Expands to Include a 1694A Composite Construction

Belden recently introduced Banana Peel versions of its highly popular 1855A and 1505A cables, and now includes a Banana Peel construction of the industry's standard: 1694A

These digital video cables are ideal for use in the most demanding applications, including serial digital video, component video, unbalance mode analog or digital audio (AES/EBU), computer CAD/CAM, high-end computer graphics and animation, and live studio, field and mobile television broadcasting.

The new cables can also be used for high-resolution monitors and projection imaging in corporate boardrooms, command and control centers, auditoriums, teleconferencing centers, home theaters, performance venues, post-production facilities and houses of worship.

1855A, 1505A and 1694A Banana Peel constructions are available in bundles of 3, 5 and 6. All cables are pre-timed to ensure a delay difference of less than 5.0ns/100 feet between coaxes, allowing for "cut-and-connect" installation with no TDR or Vectorscope timing required. The result is a dramatic reduction in installation time, expense and complexity. Further reductions in the cables' installation time/complexity are offered by means of their unique Banana Peel construction.

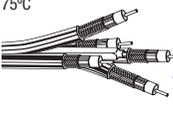
Banana Peel Means Labor Savings, Easy Identification

Banana Peel Precision Video Snake cables will decrease your labor costs because the overall jacket has been eliminated. Without the outer jacket, a whole step in the termination process has been eliminated, plus the individual cable components are all instantly identifiable (the individual cables are color-coded and the print legends are immediately visible). To terminate the cables just peel the individual cables off the center spline and terminate. With no overall jacket the composite has a smaller OD, especially considering the OD of similarly bundled cables. The cable's bend radius also is improved, making it possible to use a smaller size conduit.

Exceptional Return Loss Characteristics, Sweep Tested to 4.5 GHz

To ensure best-in-class Return Loss performance, these cables are 100% sweep tested to 4.5 GHz. Belden is the only cable manufacturer that has extended its testing to 4.5 GHz, assuring broadcasters and leading-edge broadcast equipment manufacturers of high performance and reliability as they migrate from the existing 1080i (interlaced) HD format to the emerging 1080p (progressive) format.

Banana Peel® Precision Video Coax Snake Cable

| Description | Part No. | UL NEC/ C(UL) CEC Type | No. Of Cond. | Standard Lengths | | Standard Unit Weight | | Conductor (stranding) Diameter Nom. DCR | Nominal Core OD | | Shielding Materials Nom. DCR | Nominal OD | | Nom. Imp Ω | Nom. Vel. of Prop. | Nominal Capacitance | | Nominal Attenuation | | | |
|--|-------------------------------------|---------------------------------|-----------------|------------------|-------|----------------------|----------|---|-----------------|------|------------------------------|------------|---|------------|--------------------|---------------------|------|-------------------------------------|-----------|---------|--|
| | | | | Ft. | m | Lbs | kg. | | Inch | mm | | Inch | mm | | | pF/Ft. | pF/m | MHz | dB/100ft. | dB/100m | |
| Miniature 23 AWG Solid .023" Bare Copper • Duofoil® + 95% Tinned Copper Braid Shield (100% coverage) 1855A Versions | | | | | | | | | | | | | | | | | | | | | |
| Gas-injected Foam HDPE Insulation • Individually color coded PVC Jackets* • Bundled • Center Spine Binder | | | | | | | | | | | | | | | | | | | | | |
| SDI/HDTV Digital Video 75°C  | 1855S3 | NEC: | 3 | 500 | 152.4 | 29.5 | 13.4 | 23 AWG | .102 | 2.59 | Duofoil | Single: | 75 | 83% | 16.3 | 53.5 | 1 | .4 | 1.3 | | |
| | | CMR | 1000 | 304.8 | 57.0 | 25.9 | (solid) | +95% TC | .159 | 4.03 | | Overall: | See Belden Master Catalog pg. 19.78 for maximum digital transmission distance values. Refer to 1855A. | 10 | 1.2 | 3.9 | 3.6 | .8 | 2.6 | | |
| | | CEC: | | | | | .023" | Braid | | | | | | | | | | 71.5 | 3.1 | 10.2 | |
| | | CMG FT4 | | | | | BC | 7.6Ω/M' | .343 | 8.7 | 24.9Ω/km | | | | | | | 135 | 3.8 | 12.5 | |
| | | | | | | | 20.1Ω/M' | | | | | | | | | | | 270 | 5.4 | 17.7 | |
| | | | | | | | 65.9W/km | | | | | | | | | | | 100% Sweep tested. 5MHz to 4.5 GHz. | | | |
| | | | | | | | | | | | | | | | | | | U.S. Patent 7,049,523. | | | |
| | | | | | | | | | | | | | | | | | | 360 | 6.2 | 20.3 | |
| | | | | | | | | | | | | | | | | | | 540 | 7.7 | 25.3 | |
| | | | | | | | | | | | | | | | | | | 720 | 9.5 | 31.2 | |
| | | | | | | | | | | | | | | | | | 750 | 9.6 | 31.5 | | |
| | | | | | | | | | | | | | | | | | 1000 | 10.5 | 34.5 | | |
| | | | | | | | | | | | | | | | | | 1500 | 13.0 | 42.7 | | |
| | | | | | | | | | | | | | | | | | 2250 | 16.0 | 52.5 | | |
| | | | | | | | | | | | | | | | | | 3000 | 18.5 | 60.7 | | |
| | | | | | | | | | | | | | | | | | 4500 | 22.8 | 74.8 | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 20 AWG Solid .032" Bare Copper • Duofoil® + 95% Tinned Copper Braid Shield (100% coverage) 1505A Versions | | | | | | | | | | | | | | | | | | | | | |
| Gas-injected Foam HDPE Insulation • Individually color coded PVC Jackets* • Bundled • Center Spine Binder | | | | | | | | | | | | | | | | | | | | | |
| SDI/HDTV Digital Video 75°C  | 1505S3 | NEC: | 3 | 500 | 152.4 | 55.0 | 25.0 | 20 AWG | .145 | 3.68 | Duofoil | Single: | 75 | 83% | 16.3 | 53.5 | 1 | .3 | 1.0 | | |
| | | CMR | 1000 | 304.8 | 104.0 | 47.0 | (solid) | +95% TC | .235 | 5.97 | | Overall: | See Belden Master Catalog pg. 19.78 for maximum digital transmission distance values. Refer to 1505A. | 10 | .9 | 3.0 | 3.6 | .6 | 2.0 | | |
| | | CEC: | | | | | .032" | Braid | | | | | | | | | | 71.5 | 2.1 | 6.9 | |
| | | CMG FT4 | | | | | BC | 3.8Ω/M' | .502 | 12.8 | 12.5Ω/km | | | | | | | 135 | 2.7 | 8.9 | |
| | | | | | | | 10.1Ω/M' | | | | | | | | | | | 270 | 3.8 | 12.5 | |
| | | | | | | | 32.8W/km | | | | | | | | | | | 100% Sweep tested. 5MHz to 4.5 GHz. | | | |
| | | | | | | | | | | | | | | | | | | U.S. Patent 7,049,523. | | | |
| | | | | | | | | | | | | | | | | | | 360 | 4.4 | 14.4 | |
| | | | | | | | | | | | | | | | | | | 540 | 5.5 | 18.0 | |
| | | | | | | | | | | | | | | | | | | 720 | 6.4 | 21.0 | |
| | | | | | | | | | | | | | | | | | 750 | 6.5 | 21.3 | | |
| | | | | | | | | | | | | | | | | | 1000 | 7.6 | 24.9 | | |
| | | | | | | | | | | | | | | | | | 1500 | 9.3 | 30.5 | | |
| | | | | | | | | | | | | | | | | | 2250 | 11.6 | 38.1 | | |
| | | | | | | | | | | | | | | | | | 3000 | 13.4 | 44.0 | | |
| | | | | | | | | | | | | | | | | | 4500 | 16.4 | 58.8 | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 18 AWG Solid .040" Bare Copper • Duofoil® + 95% Tinned Copper Braid Shield (100% coverage) 1694A Versions | | | | | | | | | | | | | | | | | | | | | |
| Gas-injected Foam HDPE Insulation • Individually color coded PVC Jackets* • Bundled • Center Spine Binder | | | | | | | | | | | | | | | | | | | | | |
| SDI/HDTV Digital Video 75°C  | 1694S3 <small>new</small> | NEC: | 3 | 500 | 152.4 | 75.0 | 34.0 | 18 AWG | .180 | 4.57 | Duofoil | Single: | 75 | 82% | 16.2 | 53.5 | 1 | 0.24 | 0.8 | | |
| | | CMR | 1000 | 304.8 | 145.0 | 66.0 | (solid) | +95% TC | .274 | 7.0 | | Overall: | See Belden Master Catalog pg. 19.78 for maximum digital transmission distance values. Refer to 1694A. | 10 | .72 | 2.4 | 3.6 | 0.45 | 1.5 | | |
| | | CEC: | | | | | .040" | Braid | | | | | | | | | | 71.5 | 1.60 | 5.3 | |
| | | CMG FT4 | | | | | BC | 3.8Ω/M' | .590 | 15.0 | 12.5Ω/km | | | | | | | 135 | 2.10 | 6.9 | |
| | | | | | | | 6.4Ω/M' | | | | | | | | | | | 270 | 2.97 | 9.7 | |
| | | | | | | | 21.0Ω/km | | | | | | | | | | | 100% Sweep tested. 5MHz to 4.5 GHz. | | | |
| | | | | | | | | | | | | | | | | | | U.S. Patent 7,049,523. | | | |
| | | | | | | | | | | | | | | | | | | 360 | 3.43 | 11.3 | |
| | | | | | | | | | | | | | | | | | | 540 | 4.25 | 13.9 | |
| | | | | | | | | | | | | | | | | | | 720 | 4.95 | 16.2 | |
| | | | | | | | | | | | | | | | | | 750 | 5.00 | 16.4 | | |
| | | | | | | | | | | | | | | | | | 1000 | 5.89 | 19.3 | | |
| | | | | | | | | | | | | | | | | | 1500 | 7.33 | 24.1 | | |
| | | | | | | | | | | | | | | | | | 2250 | 9.14 | 30.0 | | |
| | | | | | | | | | | | | | | | | | 3000 | 10.67 | 35.0 | | |
| | | | | | | | | | | | | | | | | | 4500 | 13.29 | 43.6 | | |
| | | | | | | | | | | | | | | | | | | | | | |

BC = Bare Copper • HDPE = High-density Polyethylene • TC = Tinned Copper
*Color coded in Red, Green, Blue, Yellow, Black and White