



Part Number: 1694A

Serial Digital Coax, RG6 Type, #18 Solid BC, Duofoil® + 95% TC braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, RG6 Type, 18 AWG solid bare copper conductor, foam HDPE core, Duobond® +95% tinned copper braid, PVC jacket

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Environmental Space: | Outdoor - Aerial |
| Suitable Applications: | SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p |

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | Nominal Diameter | No. of Coax |
|-----|-----------|------------------|------------------|-------------|
| 18 | Solid | BC - Bare Copper | 0.04 in | 1 |

| | |
|------------------|--------|
| Conductor Count: | 1 |
| Conductor Size: | 18 AWG |

Insulation

| Material | Nominal Diameter |
|---|------------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 0.18 in |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] |
|-------|-------|-----------------------------------|---------------------|--------------|
| Tape | 1 | Aluminium / Polyester / Aluminium | Duofoil® | 100 % |
| Braid | 2 | TC - Tinned Copper | | 95.0 % |

Outer Jacket Material

| Material | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.274 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Outer Conductor DCR |
|-----------------------|---------------------|
| 6.4 Ohm/1000ft | 2.8 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 16.2 pF/ft |

| | |
|------------|-----------------------|
| Shielding: | Multiple or Specialty |
|------------|-----------------------|

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 | 0.24 dB/100ft |
| 3.58 MHz | 0.44 dB/100ft |
| 5 MHz | 0.52 dB/100ft |
| 6 MHz | 0.57 dB/100ft |
| 7 MHz | 0.61 dB/100ft |
| 10 MHz | 0.71 dB/100ft |
| 12 MHz | 0.78 dB/100ft |
| 25 MHz | 1.08 dB/100ft |
| 67.5 MHz | 1.65 dB/100ft |
| 71.5 MHz | 1.69 dB/100ft |
| 88.5 MHz | 1.86 dB/100ft |
| 100 MHz | 1.95 dB/100ft |
| 135 MHz | 2.24 dB/100ft |
| 143 MHz | 2.3 dB/100ft |
| 180 MHz | 2.57 dB/100ft |
| 270 MHz | 3.17 dB/100ft |
| 360 MHz | 3.69 dB/100ft |
| 540 MHz | 4.5 dB/100ft |
| 720 MHz | 5.3 dB/100ft |
| 750 MHz | 5.4 dB/100ft |
| 1000 MHz | 6.3 dB/100ft |
| 1500 MHz | 7.8 dB/100ft |
| 2000 MHz | 9.2 dB/100ft |
| 2250 MHz | 9.8 dB/100ft |
| 3000 MHz | 11.5 dB/100ft |
| 4500 MHz | 14.5 dB/100ft |
| 6000 MHz | 17.7 dB/100ft |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.24 ns/ft | 82 % |

Voltage

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

| | |
|-----------------------------------|---|
| Electrical Characteristics Notes: | Return Loss: Fixed bridge and termination |
|-----------------------------------|---|

Temperature Range

| | |
|-----------------------|----------------|
| UL Temp Rating: | 75°C |
| Operating Temp Range: | -30°C To +75°C |

Mechanical Characteristics

| | |
|----------------------------------|---------------|
| UV Resistance: | Yes |
| Bulk Cable Weight: | 41 lbs/1000ft |
| Max Recommended Pulling Tension: | 69 lbs |
| Min Bend Radius/Minor Axis: | 2.75 in |

Standards

| | |
|--------------------------|----------|
| NEC/(UL) Specification: | CMR |
| CEC/C(UL) Specification: | CMG |
| CPR Euroclass: | Eca |
| RG Type: | 6/U Type |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV): | 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 Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |
| 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: | Yes - Black only, when supported by messenger wire |
| Suitability - Burial: | No |
| Suitability - Hazardous Locations: | No |
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes - Black only |

Flammability, LS0H, Toxicity Testing

| | |
|--------------------|-----------------------|
| UL Flammability: | UL1666 Vertical Shaft |
| CSA Flammability: | FT4 |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

| | |
|----------------|-------|
| Plenum (Y/N): | No |
| Plenum Number: | 1695A |

Part Number

| | |
|----------------|---------------------------------|
| Related Parts: | 1694ABHD1, 1694ABHD3, 1694ABHDL |
|----------------|---------------------------------|

Variants

| Item # | Color | Footnote |
|----------------|----------------|----------|
| 1694A.001000 | Black | |
| 1694A.001372 | Black | |
| 1694A.00152 | Black | |
| 1694A.00305 | Black | |
| 1694A.00500 | Black | |
| 1694A 0101000 | Black | C |
| 1694A 010500 | Black | C |
| 1694A 0105000 | Black | C N |
| 1694A 010N1000 | Black | |
| 1694A 010N1000 | Black | |
| 1694A 0061000 | Blue, Light | C |
| 1694A 0065000 | Blue, Light | C N |
| 1694A.051372 | Blue, RAL 5015 | |
| 1694A.05305 | Blue, RAL 5015 | |
| 1694A 0011000 | Brown | C |
| 1694A 0015000 | Brown | C N |
| 1694A.09500 | Cream | |
| 1694A 0081000 | Gray | C |
| 1694A 0085000 | Gray | C N |
| 1694A.081372 | Gray, Slate | |
| 1694A.08305 | Gray, Slate | |
| 1694A.061219 | Green | |
| 1694A.061372 | Green | |
| 1694A.06152 | Green | |
| 1694A.06305 | Green | |
| 1694A.064000 | Green | |
| 1694A N3U1000 | Green, Mil | C |

| | | |
|----------------|------------------|-----|
| 1694A N3U5000 | Green, Mil | C N |
| 1694A N3UN1000 | Green, Mil | |
| 1694A N3UN1000 | Green, Mil | |
| 1694A 0031000 | Orange | C |
| 1694A.031372 | Orange, RAL 2003 | |
| 1694A.03305 | Orange, RAL 2003 | |
| 1694A 0021000 | Red | C |
| 1694A 0025000 | Red | C N |
| 1694A.011372 | Red, RAL 3000 | |
| 1694A.01305 | Red, RAL 3000 | |
| 1694A.021372 | Violet | |
| 1694A.02305 | Violet | |
| 1694A 0071000 | Violet | C |
| 1694A 0075000 | Violet | C N |
| 1694A.021000 | Violet | |
| 1694A 007N1000 | Violet | |
| 1694A 007N1000 | Violet | |
| 1694A.071372 | White | |
| 1694A.07305 | White | |
| 1694A 0091000 | White | C |
| 1694A 009N1000 | White | |
| 1694A 009N1000 | White | |
| 1694A 0041000 | Yellow | C |
| 1694A 004N1000 | Yellow | |
| 1694A 004N1000 | Yellow | |
| 1694A.041372 | Yellow, RAL 1021 | |
| 1694A.04305 | Yellow, RAL 1021 | |

| | |
|-----------|---|
| Footnote: | C - CRATE REEL PUT-UP. |
| Footnote: | N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN. |

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