



**Part Number: 7731A**

Serial Digital Coax, RG11, #14 Solid BC, Foil + 95% TC braid, CMR

## Product Description

Low Loss Serial Digital Coax, Riser-CMR, RG11 14 AWG solid bare copper conductor, foam HDPE core, Duofoil, +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 |
|-----|-----------|------------------|------------------|-------------|
| 14  | Solid     | BC - Bare Copper | 0.064 in         | 1           |

|                  |    |
|------------------|----|
| Conductor Count: | 1  |
| AWG Size:        | 14 |

#### Insulation

| Material  | Nominal Diameter |
|---|------------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 0.28 in          |

#### Outer Shield Material

| Type  | Layer | Material                                   | Material Trade Name | Coverage [%] |
|-------|-------|--|---------------------|--------------|
| Tape  | 1     | Aluminum Foil-Polyester Tape-Aluminum Foil | Duofoil®            | 100 %        |
| Braid | 2     | TC - Tinned Copper                         |                     | 95 %         |

#### Outer Jacket Material

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.4 in           |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR | Outer Conductor DCR |
|-----------------------|--------------------------|---------------------|
| 2.5 Ohm/1000ft        | 1.5 Ohm/1000ft           | 1.5 Ohm/1000ft      |

#### Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 16 pF/ft                             |

#### Inductance

| Nominal Inductance |
|--------------------|
| 0.097 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           | 0.16 dB/100ft       |
| 3.58 MHz        | 0.29 dB/100ft       |
| 5 MHz           | 0.34 dB/100ft       |
| 7 MHz           | 0.39 dB/100ft       |
| 10 MHz          | 0.46 dB/100ft       |
| 67.5 MHz        | 1.05 dB/100ft       |
| 71.5 MHz        | 1.09 dB/100ft       |
| 88.5 MHz        | 1.21 dB/100ft       |
| 100 MHz         | 1.28 dB/100ft       |
| 135 MHz         | 1.47 dB/100ft       |
| 143 MHz         | 1.51 dB/100ft       |
| 180 MHz         | 1.69 dB/100ft       |
| 270 MHz         | 1.97 dB/100ft       |
| 360 MHz         | 2.31 dB/100ft       |
| 540 MHz         | 2.87 dB/100ft       |
| 720 MHz         | 3.40 dB/100ft       |
| 750 MHz         | 3.45 dB/100ft       |
| 1000 MHz        | 3.60 dB/100ft       |
| 1000 MHz        | 4.12 dB/100ft       |
| 1500 MHz        | 5.10 dB/100ft       |
| 2000 MHz        | 6.04 dB/100ft       |
| 2250 MHz        | 6.43 dB/100ft       |
| 3000 MHz        | 7.63 dB/100ft       |
| 4500 MHz        | 9.56 dB/100ft       |
| 6000 MHz        | 11.53 dB/100ft      |

#### Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.21 ns/ft    | 85 %                                     |

#### Voltage

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

|                                    |   |
|------------------------------------|---|
| Electrical Characteristics Notes:  | TDR Impedance: 75 +/- 3 Ohms              |
| Other Electrical Characteristic 2: | 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:               | 87 lbs/1000ft |
| Max Recommended Pulling Tension: | 145 lbs       |
| Min Bend Radius/Minor Axis:      | 4 in          |

#### Standards

|                          |              |
|--------------------------|--------------|
| NEC/(UL) Specification:  | CMR          |
| CEC/C(UL) Specification: | CMG          |
| CPR Euroclass:           | Eca          |
| RG Type:                 | RG-11/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 2015/863/EU:             | 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                   |

### Part Number

|                       |  |
|-----------------------|--|
| Plenum (Y/N):         | No   |
| Plenum Number:        | 7732A  |
| Suggested Connectors: | King 2065-8-9; Trompeter UPL2000-D5; Canare BCP-C71A; Amphenol 31-4411 |

### Variants

| Item #        | Color            | Footnote |
|---------------|------------------|----------|
| 7731A.001220  | BLACK            |          |
| 7731A.00152   | BLACK            |          |
| 7731A.002000  | BLACK            |          |
| 7731A.00305   | BLACK            |          |
| 7731A 0101000 | BLACK            | C        |
| 7731A 0104000 | BLACK            | C        |
| 7731A 010500  | BLACK            | C        |
| 7731A.031220  | BLUE             |          |
| 7731A.03152   | BLUE             |          |
| 7731A.03305   | BLUE             |          |
| 7731A 0061000 | BLUE, LIGHT      |          |
| 7731A 0064000 | BLUE, LIGHT      | C        |
| 7731A 0011000 | BROWN            |          |
| 7731A 0014000 | BROWN            | C        |
| 7731A 0081000 | GRAY             |          |
| 7731A 0084000 | GRAY             | C        |
| 7731A.081220  | GRAY, SLATE      |          |
| 7731A.08305   | GRAY, SLATE      |          |
| 7731A.021220  | GREEN            |          |
| 7731A.02305   | GREEN            |          |
| 7731A N3U1000 | GREEN, MIL       | C        |
| 7731A N3U4000 | GREEN, MIL       | C        |
| 7731A 0031000 | ORANGE           |          |
| 7731A 0034000 | ORANGE           | C        |
| 7731A.061220  | ORANGE, RAL 2003 |          |
| 7731A.06305   | ORANGE, RAL 2003 |          |
| 7731A.051220  | PURPLE           |          |
| 7731A.05305   | PURPLE           |          |
| 7731A 0021000 | RED              | C        |
| 7731A 0024000 | RED              | C        |
| 7731A.011220  | RED, RAL 3000    |          |
| 7731A.01152   | RED, RAL 3000    |          |
| 7731A.01305   | RED, RAL 3000    |          |

|               |                  |   |
|---------------|------------------|---|
| 7731A.0071000 | VIOLET           | C |
| 7731A.0074000 | VIOLET           | C |
| 7731A.071220  | WHITE            |   |
| 7731A.07305   | WHITE            |   |
| 7731A.0091000 | WHITE            |   |
| 7731A.0094000 | WHITE            | C |
| 7731A.0041000 | YELLOW           |   |
| 7731A.0044000 | YELLOW           | C |
| 7731A.041220  | YELLOW, RAL 1021 |   |
| 7731A.04305   | YELLOW, RAL 1021 |   |

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

## Product Notes

|        |   |
|--------|---|
| Notes: | Print legend includes sequential footage marks. |
|--------|---|

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