



**Product:** [1694WB](#) 

Serial Digital Coax, RG6, #18 Solid BC, Foil + 95% TC braid, Waterblocked

## Product Description

Low Loss Serial Digital Coax, RG6 18 AWG solid bare copper conductor, foam HDPE core, Duofoil®+95% tinned copper braid, waterblocking grease, PE jacket

## Technical Specifications

### Product Overview

|                        |                                |
|------------------------|--------------------------------|
| Suitable Applications: | 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 |
|------------------|---|

#### Insulation

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.18 in          |

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

#### Outer Shield

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

|              |                              |
|--------------|------------------------------|
| Table Notes: | Outer Shield Flooding Grease |
|--------------|------------------------------|

#### Outer Jacket

| Material          | Nominal Diameter |
|-------------------|------------------|
| PE - Polyethylene | 0.274 in         |

### Electrical Characteristics

#### Conductor DCR

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

#### Capacitance

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

#### Inductance

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

#### Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
|----------------------------------|

|        |
|--------|
| 75 Ohm |
|--------|

#### Return Loss (RL)

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

#### Delay

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

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

#### Temperature Range

|                       |                |
|-----------------------|----------------|
| Operating Temp Range: | -55°C To +80°C |
|-----------------------|----------------|

#### Mechanical Characteristics

|                              |               |
|------------------------------|---------------|
| UV Resistance:               | Yes           |
| Bulk Cable Weight:           | 36 lbs/1000ft |
| Max. Pull Tension:           | 69 lbs        |
| Min. Bend Radius/Minor Axis: | 2.75 in       |

#### Standards

|          |   |
|----------|---|
| RG Type: | 6 |
|----------|---|

#### Applicable Environmental and Other Programs

|                                   |                               |
|-----------------------------------|-------------------------------|
| Environmental Space:              | Outdoor - Water Exposure      |
| EU Directive 2000/53/EC (ELV):    | Yes                           |
| EU Directive 2003/96/EC (BFR):    | Yes                           |
| EU Directive 2011/65/EU (RoHS 2): | Yes                           |
| EU Directive 2012/19/EU (WEEE):   | Yes                           |
| EU Directive Compliance:          | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                       | No                            |

|                             |     |
|-----------------------------|-----|
| MII Order #39 (China RoHS): | Yes |
|-----------------------------|-----|

## Suitability

|                                    |  |
|------------------------------------|--|
| Suitability - Aerial:              | Yes - When supported by messenger wire |
| Suitability - Burial:              | Yes                                    |
| Suitability - Hazardous Locations: | No                                     |
| Suitability - Indoor:              | No                                     |
| Suitability - Outdoor:             | Yes                                    |
| Suitability - Sunlight Resistance: | No                                     |

## Plenum/Non-Plenum

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

## Related Part Numbers

### Variants

| Item #          | Color       | Put-Up Type | Length    | UPC          |
|-----------------|-------------|-------------|-----------|--------------|
| 1694WB 0101000  | Black       | Reel        | 1,000 ft  | 612825358602 |
| 1694WB 0102500  | Black       | Reel        | 2,500 ft  | 612825357483 |
| 1694WB 0105000  | Black       | Reel        | 5,000 ft  | 612825357490 |
| 1694WB 01010000 | Black       | Reel        | 10,000 ft | 612825443018 |
| 1694WB 0061000  | Blue, Light | Reel        | 1,000 ft  | 612825358596 |
| 1694WB 0062500  | Blue, Light | Reel        | 2,500 ft  | 612825357469 |
| 1694WB 0065000  | Blue, Light | Reel        | 5,000 ft  | 612825357476 |

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

## Product Notes

|        |   |
|--------|---|
| Notes: | Flooding grease between jacket and braid. Print legend includes sequential footage marks. |
|--------|---|

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.373 Revision Date: 12-15-2021 |
|----------------------|--|

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