# Detailed Specifications & Technical Data

**ENGLISH MEASUREMENT VERSION**

**1694SB Coax - Shipboard Precision Video Cable - Analog/Digital Application**



For more Information please call

1-800-Belden1

## Description:

18 AWG solid .040" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® (100% coverage) plus a tinned copper braid shield (95% coverage), LSZH jacket.

## Usage (Overall)

| | |
|---|---|
| **Suitable Applications:** | Coaxial Cable for Communication, Audio, Video, CCTV, CATV, MATV, Broadband, or Broadcast use in Marine Shipboard and Offshore use |

## Physical Characteristics (Overall)

### Conductor

**AWG:**

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|---|---|---|---|---|
| 1 | 18 | Solid | BC - Bare Copper | .040 |

### Insulation

**Insulation Material:**

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

### Outer Shield

**Outer Shield Material:**

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

### Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material |
|---|
| LSZH - Low Smoke Zero Halogen |

### Overall Cabling

| | |
|---|---|
| **Overall Nominal Diameter:** | 0.274 in. |

## Mechanical Characteristics (Overall)

| | |
|---|---|
| **Operating Temperature Range:** | -30°C To +75°C |
| **Bulk Cable Weight:** | 42.900 lbs/1000 ft. |
| **Max. Recommended Pulling Tension:** | 69 lbs. |
| **Min. Bend Radius (Install)/Minor Axis:** | 2.750 in. |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

| | |
|---|---|
| **NEC/(UL) Specification:** | CMG-LS |
| **CEC/C(UL) Specification:** | CMG-LS |
| **IEEE Specification:** | Std. 45 clause 23 |
| **EU CE Mark:** | Yes |
| **EU Directive 2000/53/EC (ELV):** | Yes |

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| | |
|---|---|
| **EU Directive 2002/95/EC (RoHS):** | Yes |
| **EU RoHS Compliance Date (mm/dd/yyyy):** | 08/01/2005 |
| **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 |
| **Other Specification:** | UL444, ABS Type Approval Certificate 05-HS500072C |
| **RG Type:** | 6/U |

### Flame Test

| | |
|---|---|
| **UL Flame Test:** | UL1685 FT4 Loading, Limited Smoke |
| **C(UL) Flame Test:** | FT4, Limited Smoke |
| **IEC Flame Test:** | 60332-1, 60332-3-22 (Category A) |
| **IEEE Flame Test:** | 1202 |

### Suitability

| | |
|---|---|
| **Suitability - Indoor:** | Yes |
| **Suitability - Outdoor:** | Yes |
| **Sunlight Resistance:** | Yes |

## Electrical Characteristics (Overall)

**Nom. Characteristic Impedance:**

| Impedance (Ohm) |
|---|
| 75 |

**Nom. Inductance:**

| Inductance (µH/ft) |
|---|
| 0.106 |

**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 |

**Nominal Outer Shield DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|---|
| 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. 75 +/- 1.5 Ohms

**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 | 1600 | 23 |
| 1600 | 4500 | 21 |

### Sweep Test

**Sweep Testing:** 100% Sweep tested 5 MHz to 4.5 GHz.

## Related Documents:

No related documents are available for this product

## Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---|---|---|---|---|---|
| 1694SB 0101000 | 1,000 FT | 46.000 LB | BLACK | C | #18 PE/GIFHDPE SH FRNHPO |

**Notes:**
C = CRATE REEL PUT-UP.

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