Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



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





For more Information please call

1-800-Belden1



General 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.

1

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

Total Number of Conductors:

Insulation

Insulation Material:

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

Outer Shield

Outer Shield Material:

| Layer | Layer # Outer Shield Trade Name | | 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 Cable

Overall Nominal Diameter: 0.274 in.

Mechanical Characteristics (Overall)

| Operating Temperature Range: | -30°C To +75°C | | |
|-----------------------------------|-----------------|--|--|
| Bulk Cable Weight: | 42 lbs/1000 ft. | | |
| Max. Recommended Pulling Tension: | 69 lbs. | | |
| Min. Bend Radius/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 |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| IEEE Specification: | Std. 45 clause 23 |
| 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): | 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 |

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| | MII Order #39 (China RoHS): | Yes | | | | |
|-----|-----------------------------|---|--|--|--|--|
| | Other Specification: | UL444, ABS Type Approval Certificate 05-HS500072C | | | | |
| | RG Type: | 6/U | | | | |
| Fla | me Test | | | | | |
| | UL Flame Test: | UL1685 FT4 Loading, Limited Smoke | | | | |
| | CSA Flame Test: | FT4 | | | | |
| | IEC Flame Test: | 60332-1, 60332-3-22 (Category A) | | | | |
| | IEEE Flame Test: | 1202 | | | | |
| Sui | tability | | | | | |
| | Suitability - Indoor: | Yes | | | | |
| | Suitability - Outdoor: | Yes | | | | |
| | Sunlight Resistance: | Yes | | | | |
| | | | | | | |

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



Nominal Velocity of Propagation:



Nominal Delay:



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 |

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Max. Operating Voltage - UL:

Voltage 300 V RMS

Other Electrical Characteristic 1:

Other Electrical Characteristic 2:

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

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) 1600 1600 4500 21

Sweep Test

Sweep Testing:

100% Sweep tested 5 MHz to 4.5 GHz.

Put Ups and Colors:

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

Notes

C = CRATE REEL PUT-UP.

Revision Date: 09-24-2012 Revision Number: 6

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