# **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.

# **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	<b>Conductor Material</b>	Dia. (in.)
1	18	Solid	BC - Bare Copper	.040

Total Number of Conductors: 1

#### 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		Туре	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

Page 1 of 3 10-30-2013

# **Detailed Specifications & Technical Data**





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

	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
	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
Su	itability	
	Suitability - Indoor:	Yes
	Suitability - Outdoor:	Yes
	Sunlight Resistance:	Yes

# **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



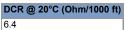
Nominal Velocity of Propagation:



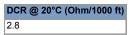
**Nominal Delay:** 



Nom. Conductor DC Resistance:



Nominal Outer Shield DC Resistance:



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

Page 2 of 3 10-30-2013

# **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



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

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

> Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 Other Electrical Characteristic 1:

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.

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

© 2013 Belden, Inc All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.