

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



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

Other Standards: 60092-376 clause 17, 60092-351, 60754-1, 60754-2, 61034

EU CE Mark: Yes

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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-HS50072C/1-PDA
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	0.24
3.58	0.45
5	0.54
7	0.63
10	0.72
67.5	1.57
71.5	1.60

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88.5	1.75
100	1.84
135	2.10
143	2.16
180	2.42
270	2.97
360	3.43
540	4.25
720	4.95
750	5.00
1000	5.89
1500	7.33
2000	8.57
2250	9.14
3000	10.67
4500	13.29

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.

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.

Precision Video Cable for Analog and Digital

Low Loss Serial Digital Coax

RG-6/U and RG-11/U Type



Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

RG-6/U Type • 18 AWG Solid .040" Bare Copper Conductor • Duofoil® (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

Gas-injected Foam HDPE Insulation • PVC Jacket (Available in 10 colors)*

SDI/HDTV	1694A	NEC:	500 [▲]	152.4	20.5	9.3	18 AWG	.180	4.57	Duofoil	.274	6.96	75	82%	16.2	53.1	1	.2	.8
Digital Video		CMR	1000	304.8	45.0	20.5	(solid)			+ 95%							3.6	.5	1.5
75°C		CEC:	4500	1371.6	202.5	91.9	.040"			TC Braid							10	.7	2.4
		CMG FT4								2.8Ω/M'							71.5	1.6	5.2
									BC								135	2.1	6.9
									6.4Ω/M'								270	3.0	9.7
									21.0Ω/km								360	3.4	11.3
																	540	4.3	13.9
																	720	4.9	16.1
																	750	5.0	16.4
																	1000	5.9	19.3
																	1500	7.3	24.0
																	2250	9.1	30.0
																	3000	10.7	35.0

*500 ft. put-up available in Black only.

Gas-injected Foam HDPE Insulation • Black Low-Smoke, Zero-Halogen Jacket

SDI/HDTV	1694SB	NEC:	1000	304.8	46.0	20.9	18 AWG	.180	4.57	Duofoil	.274	6.96	75	82%	16.2	53.1	1	.2	.8
Digital Video		CMG-LS					(solid)			+ 95%							3.6	.5	1.5
75°C		CEC:					.040"			TC Braid							10	.7	2.4
		CMG-LS FT4								2.8Ω/M'							71.5	1.6	5.2
		Limited Smoke							BC								135	2.1	6.9
									6.4Ω/M'								270	3.0	9.7
									21.0Ω/km								360	3.4	11.3
																	540	4.3	13.9
																	720	4.9	16.1
																	750	5.0	16.4
																	1000	5.9	19.3
																	1500	7.3	24.0
																	2250	9.1	30.0
																	3000	10.7	35.0

Plenum • Foam FEP Teflon® Insulation • Flammarrest® Jacket (Available in 10 colors)**

SDI/HDTV	1695A	NEC:	500 [*]	152.4	20.5	9.3	18 AWG	.170	4.32	Duofoil	.234	5.94	75	82%	16.2	53.1	1	.2	.8
Digital Video		CMP	1000	304.8	45.0	20.5	(solid)			+ 95%							3.6	.5	1.5
75°C		CEC:					.040"			TC Braid							10	.8	2.5
		CMP FT6								2.8Ω/M'							71.5	1.8	5.8
									BC								135	2.4	7.9
									6.4Ω/M'								270	3.4	11.2
									21.0Ω/km								360	4.0	13.1
																	540	5.2	17.1
																	720	6.1	20.0
																	750	6.2	20.3
																	1000	7.3	23.9
																	1500	9.2	30.2
																	2250	11.6	38.0
																	3000	13.7	44.9

Black jacket suitable for Indoor, Outdoor and Aerial applications.

*500 ft. put-up available in Black or Natural only.

RG-11/U Type • 14 AWG Solid .064" Bare Copper Conductor • Duofoil (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

Gas-injected Foam HDPE Insulation • PVC Jacket (Available in 10 colors)*

SDI/HDTV	7731A	NEC:	500 [*]	152.4	46.5	21.1	14 AWG	.280	7.11	Duofoil	.400	10.2	75	85%	16.0	52.4	1	.2	.5
Digital Video		CMR	1000	304.8	95.0	43.1	(solid)			+ 95%							3.6	.3	1.0
75°C		CEC:	4000	1219.2	388.0	176.0	.064"			TC Braid							10	.5	1.5
		CMG FT4								1.5Ω/M'							71.5	1.1	3.6
									BC								135	1.5	4.8
									2.5Ω/M'								270	2.1	6.9
									8.2Ω/km								360	2.5	8.0
																	540	3.1	10.0
																	720	3.6	11.7
																	750	3.7	12.0
																	1000	4.3	14.1
																	1500	5.5	18.0
																	2250	6.9	22.6
																	3000	8.2	26.9

*500 ft. put-up available in Red or Black only.

Plenum • Foam FEP Teflon Insulation • Fluorocopolymer Jacket (Available in 10 colors)**

SDI/HDTV	7732A	NEC:	500 [*]	152.4	45.0	20.5	14 AWG	.274	6.96	Duofoil	.348	8.84	75	83%	16.3	53.5	1	.2	.5
Digital Video		CMP	1000	304.8	90.0	40.8	(solid)			+ 95%							3.6	.3	.9
150°C		CEC:	2000 [▼]	609.6	176.0	80.0	.064"			TC Braid							10	.4	1.3
		CMP FT6								1.6Ω/M'							71.5	1.2	4.1
									BC								135	1.8	5.8
									2.5Ω/M'								270	2.6	8.5
									8.2Ω/km								360	3.1	10.2
																	540	3.9	12.8
																	720	4.6	15.0
																	750	4.7	15.4
																	1000	5.5	18.0
																	1500	6.9	22.7
																	2250	9.2	30.2
																	3000	10.2	33.5

*500 ft. put-up available in Black or Natural only.

▼2000 ft. put-up available in Natural only.

Suitable for Outdoor and Direct Burial applications.

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • HDPE = High-density Polyethylene • TC = Tinned Copper

Teflon is a DuPont trademark.

* Available in Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray or White.

** Available in Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray or Natural.