



Description:

14 AWG solid .064" bare copper conductor, gas-injected foam HDPE insulation, Dufoil® + tinned copper braid shield (95% coverage), LSZH jacket.

Usage (Overall)

Suitable Applications:

HDTV, SDI, Shipboard, AES3, ABS Type Approved, CMG-LS, IEEE 45 clause 23, IEC 60092-376 clause 17, 60092-351, 60754-1, 60754-2, 61034, UL1685 FT4 Loading, Limited Smoke, IEC 60332-3-22 (Category A), 60332-1, IEEE 1202

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	14	Solid	BC - Bare Copper	.064

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.280

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Dufoil®	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: 0.400 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 93 lbs/1000 ft.

Max. Recommended Pulling Tension: 145 lbs.

Min. Bend Radius (Install)/Minor Axis: 4 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

7731SB Coax - Low Loss Serial Digital Coax

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

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): 08/04/2006

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 06-HS184641 A/1-PDA

RG Type: 11/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

Suitability - Aerial: Yes - Black only, when supported by messenger wire.

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.0

Nominal Velocity of Propagation:

VP (%)

85

Nominal Delay:

Delay (ns/ft)

1.21

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.5

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

1.5

Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100 ft.)

1	0.16
3.58	0.29
5	0.34
7	0.39

7731SB Coax - Low Loss Serial Digital Coax

10	0.46
67.5	1.05
71.5	1.09
88.5	1.21
100	1.28
135	1.47
143	1.51
180	1.69
270	2.09
360	2.45
540	3.06
720	3.58
750	3.66
1000	4.30
1500	5.50
2000	6.40
2250	6.90
3000	8.20
4500	10.40

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.

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	850	23
850	3000	21

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 3 GHz.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7731SB 0101000	1,000 FT	98.000 LB	BLACK	C	#14 PE/GIFHDLDPPE SH FRNHPO

Notes:
C = CRATE REEL PUT-UP.

Product Construction and Availability

Belden's diverse Shipboard cable line is designed to implement a wide range of shipboard audio, video, security, networking and control applications.

Copper cables

The copper-based series now includes:

- Brilliance® Broadband Coaxial cables
- Brilliance Precision Video cables
- Brilliance Audio, Control and Instrumentation cables
- DataTwist® Networking cable
- Classic Design Security Composite cables
- New Generation® CI Fire/Alarm cables

The latest additions to Belden's copper Shipboard cables include:

Coaxial cables

- 7731SB Precision Video cable for Analog and Digital – Low Loss Serial Digital Coax – RG-11/U Type
- 7810SB Low Loss 50 Ohm Wireless RF Transmission cable - RG-8 Type

Audio/Control cables

- 1502SB Multimedia Control cable for AMX® and Crestron® systems that have both RS 485 and power in one cable
- 1350SB AES/EBU Digital Audio cable for Professional grade audio applications

Speaker cables

- 1314SB and 1316SB High Strand Audio cable – 2-conductor. High-flex and high-purity
- 1315SB and 1317SB High Strand Audio cable – 4-conductor. High-flex and high-purity

Data and Patch cables

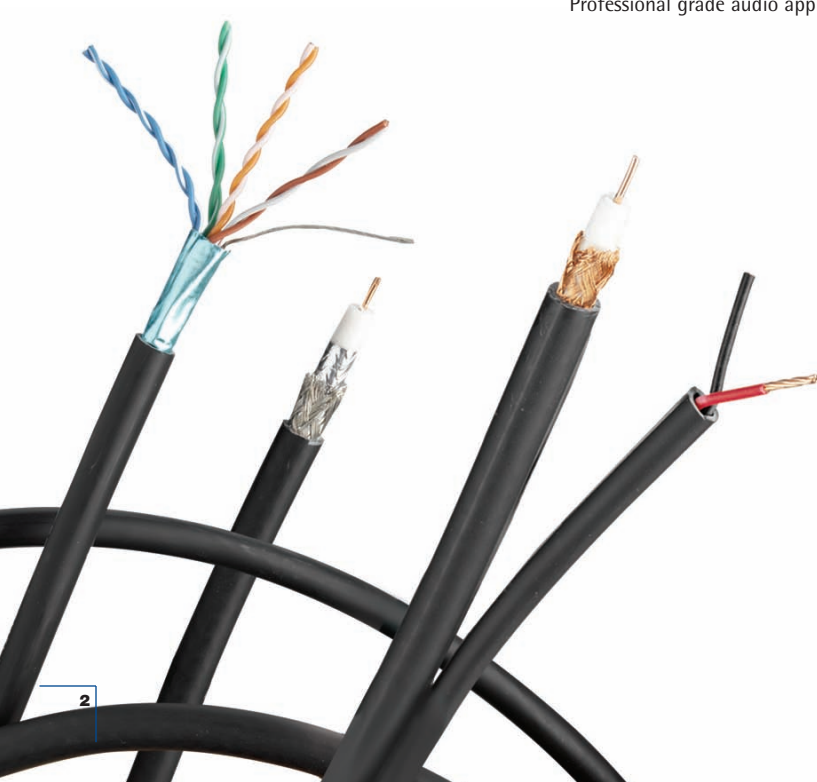
- 1318SB DataTwist® 5e UTP cable – TIA/EIA-568-B.2, Category 5e Nonbonded-pair cables
- 1319SB DataTwist® 6 UTP cable – TIA/EIA-568-B.2-1, Category 6 Nonbonded-pair cables

Fire/Alarm cables

- 1320SB and 1321SB Circuit Integrity cable (per IEC 60331-23) – Shielded Multi-conductor cables

Fiber Optic cables

Belden's Shipboard cable series also includes a wide selection of all-dielectric, loose tube Fiber Optic cables, featuring flame-retardant Thermoplastic buffers, aramid yarn strength members, a rip cord, overall water-blocking tape, and LSZH jackets.





Precision Video Cable for Analog and Digital, LSZH Low Loss Serial Digital Coax

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 • Black LSZH Jacket

SDI/HDTV Digital Video 75°C	1694SB	NEC/CEC CMG-LS FT4	1000	304.8	46.0	20.9	18 AWG (solid) .040" BC 6.4Ω/M' 21.0Ω/km	.180	4.57	Duofoil + 95% TC Braid 2.8Ω/M' 9.2Ω/km	.274	6.96	75	82%	16.2	53.1	1	.2	.8	3.6	.5	1.5	10	.7	2.4	71.5	1.6	5.2	135	2.1	6.9	270	3.0	9.7	360	3.4	11.3	540	4.3	13.9	720	4.9	16.2	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	4500	13.3	43.6
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ABS Type Approval Certificate Number 05-HS50072C/1-PDA.

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 • Black LSZH Jacket

SDI/HDTV Digital Video 75°C	7731SB <small>new</small>	NEC/CEC CMG-LS FT4	1000	304.8	89.0	40.4	14 AWG (solid) .064" BC 2.5Ω/M' 8.2Ω/km	.280	7.11	Duofoil + 95% TC Braid 1.5Ω/M' 4.9Ω/km	.400	10.2	75	85%	16.0	52.5	1	.2	.5	3.6	.3	1.0	10	.5	1.5	71.5	1.1	3.6	135	1.5	4.8	270	2.1	6.9	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	4500	10.4	34.1
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Suitable for Outdoor applications.

ABS Type Approval Certificate Number 06-HS184641A-PDA.

BC = Bare Copper • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper