

7731SB Coax - Low Loss Serial Digital Coax



For more Information
please call

1-800-Belden1



General Description:

14 AWG solid .064" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + 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. (mm)
1	14	Solid	BC - Bare Copper	1.6256

Total Number of Conductors: 1

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	7.112

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 Cable

Overall Nominal Diameter: 10.160 mm

Mechanical Characteristics (Overall)

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

UL Temperature Rating: 75°C

Bulk Cable Weight: 138.403 Kg/Km

Max. Recommended Pulling Tension: 644.989 N

Min. Bend Radius/Minor Axis: 101.600 mm

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): 08/04/2006

EU Directive 2002/96/EC (WEEE): Yes

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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-HS184641A
RG Type:	11/U

Flame 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

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/m)

0.318257

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

52.496

Nominal Velocity of Propagation:

VP (%)

85

Nominal Delay:

Delay (ns/m)

3.97001

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

8.2025

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

4.9215

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1	0.52496
3.58	0.95149
5	1.11554
7	1.27959
10	1.50926
67.5	3.44505
71.5	3.57629
88.5	3.97001
100	4.19968
135	4.82307
143	4.95431
180	5.54489
270	6.85729
360	8.03845
540	10.0399
720	11.746
750	12.0085
1000	14.1083
1500	18.0455
2000	20.9984
2250	22.6389
3000	26.9042

METRIC MEASUREMENT VERSION

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4500	34.1224
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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.

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