Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

1306SB Composite - Video with Power Pair

Description:

Coax: 18 AWG solid bare copper conductor, foam polyethylene insulation, bare copper braid shield (95% coverage), LSZH jacket. Pair: 18 AWG stranded bare copper conductor, polypropylene insulation, LSZH jacket. Coax and pair in Siamese configuration.

Usage (Overall)

Suitable Applications: Security Composite Communications Cable for CCTV plus Audio or PTZ (Pan/Tilt/Zoom) CCTV Control Applications in Marine Shipboard and Offshore use

Coax

Physical Characteristics

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	18	Solid	BC - Bare Copper	0.040

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
FPE - Foam Polyethylene	0.180

Inner Shield

Inner Shield Material:

Type	Inner Shield Material	% Coverage (%)
Braid	BC - Bare Copper	95

Applicable Specifications and Agency Compliance

Suitability

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

Electrical Characteristics

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/ft)
0.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.300

Nominal Velocity of Propagation:

VP (%)
83.000

Nominal Delay:

Delay (ns/ft)

1.220

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.400

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
3.100

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.200
5.000	0.450
10.000	0.640
50.000	1.460
100.000	2.100
200.000	3.000
400.000	4.300
700.000	5.800
900.000	6.700
1000.000	7.100

Max. Operating Voltage - UL: 300 V RMS

Twisted Pair

Physical Characteristics

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
1	18	7x26	BC - Bare Copper	0.046

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
PP - Polypropylene	0.059

Twisted Pair Color Code Chart:

Number	Color
1	Black and Red

Applicable Specifications and Agency Compliance

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes

Sunlight Resistance: Yes

Electrical Characteristics

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
24.000

Physical Characteristics (Overall)

Conductor

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material

LSZH - Low Smoke Zero Halogen

Overall Cabling

Overall Nominal Diameter:	0.275 x 0.514 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
Bulk Cable Weight:	66.700 lbs/1000 ft.
Max. Recommended Pulling Tension:	114.000 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
NEC Articles:	800
CEC/C(UL) Specification:	CMG-LS
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
MII Order #39 (China RoHS):	Yes
Other Specification:	UL444, ABS Type Approval Certificate 05-HS500072D
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

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Max. Operating Voltage - UL:

Voltage
300 V RMS

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1306SB 0101000	1,000 FT	76.000 LB	BLACK	C	1 #18 PR, 1 RG-6/U COAX

1306SB Composite - Video with Power Pair

1306SB 010500	500 FT	37.000 LB	BLACK	C	1 #18 PR, 1 RG-6/U COAX

Notes:
C = CRATE REEL PUT-UP.

Introduction

Compare Belden® Coaxial cables and the companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden Coaxial cables are time-tested for performance. Performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden Coaxial cable can be counted on for positive, reliable and trouble-free operation.

Belden Coaxial cables are engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, bundled RGB, high-flex S-Video, video triax, conformable coax and more.

Most of our Coax cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a Coax cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

Coax Cable Shielding

Belden's line of coaxial cable features a wide range of shielding configurations. Among the options are:

Duofoil®

Duofoil is a shield in which metallic foil is applied to both sides of a supporting polyester or polypropylene film.

Duobond®

Duobond is essentially the same construction as Duofoil (a laminated shielding tape consisting of aluminum foil/plastic film/aluminum foil), but with an extra layer of heat-sensitive adhesive bonding the foil shield to the dielectric core. This foil shield provides 100% coverage and insures maximum shield protection.

Duobond II (Foil/Braid)

Combines all the features of Duobond with an outer braid applied for greater protection against interference and to increase the overall tensile strength.

Duobond III (Tri-Shield)

Duobond III utilizes the Duobond II design (foil/braid) plus an additional surrounding layer of Duofoil. This extra layer of foil improves shield reliability and provides an additional interference barrier.

Duobond IV (Quad Shield)

Duobond IV adds a second layer of braid to the Tri-Shield design (foil/braid/foil/braid). This extra layer of braid shield provides improved strength and durability.

Duobond Plus®

Features the same foil/braid/foil construction as Duobond II but with the addition of a shorting fold in the outermost foil. This fold prevents a slot opening from being created in the shield, thereby preventing signal egress or ingress. This unique feature creates the effect of a solid metal conduit, which improves the high-frequency performance of the cable. (See the Technical Information section of this catalog for a more detailed explanation of "shorting folds.")

Coax Cable Packaging

As with most Belden cables, several Coax cable products are available in Belden's UnReel® cardboard dispenser. The UnReel is a unique packaging dispensing system developed by Belden to save time, cut costs and labor, and eliminate the need for dereeling equipment. Lightweight and more economical than conventional drums or reels, UnReel dispensers have pre-punched handles for easy, individual transport as well as rectangular boxes for easy pallet delivery and storage. UnReel cable pays out smoothly and evenly with no kinking, twisting, or backlashing. It also rolls out 60% faster than conventionally packaged cable.

Corresponding Literature

Technical Bulletins

TB-65: *Digital Studio Cable Guide*

Standard Analog Video Cable

RG-6/U and RG-11/U Types

BRILLIANCE®

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 • 18 AWG Stranded (7x26) .048″ Tinned Copper Conductor • Bare Copper Braid Shield (97% Coverage)																			
Flame-retardant Semi-foam Polyethylene Insulation • Black PVC Jacket																			
80°C	**8238**	NEC: CM CEC: CM	500 1000	152.4 304.8	59.0 117.0	26.8 53.1	18 AWG (7x26) .048″ TC 6.1Ω/M′ 20.0Ω/km	.285	7.24	BC Braid 97% Shield Coverage 1.2Ω/M′ 3.9Ω/km	.405	10.29	75	67%	20.5	67.2	1 10 50 100 200 400 700 900 1000	.2 .7 1.3 2.0 2.9 4.2 5.8 6.8 7.1	.6 2.2 4.3 6.6 9.5 13.8 19.0 22.3 23.3
Suitable for Indoor and Outdoor applications.																			
Polyethylene Insulation • Black PVC Jacket																			
60°C VW-1	**8261**	CEC: CXC	500 1000	152.4 304.8	52.5 104.0	23.9 47.3	18 AWG (7x26) .048″ TC 6.1Ω/M′ 20.0Ω/km	.285	7.24	BC Braid 97% Shield Coverage 1.2Ω/M′ 3.9Ω/km	.405	10.29	75	66%	20.5	67.2	1 10 50 100 200 400 700 900 1000	.2 .7 1.3 2.0 2.9 4.2 5.8 6.8 7.1	.6 2.2 4.3 6.6 9.5 13.8 19.0 22.3 23.3
Suitable for Indoor and Outdoor applications.																			
Composite • Coax: 18 AWG Solid BC Cond. w/BC Braid Shield (95% Coverage) • **Power: 18 AWG** Stranded (7x26) BC Conductor UTP																			
Foam Polyethylene Insulation (Coax) • **Polypropylene Insulation** (Pair) • **Black Low-Smoke, Zero-Halogen Jacket**																			
Siamese 300V RMS	**1306SB** new	NEC: CMG-LS CEC: CMG-LS FT4 Limited Smoke	500 1000	152.4 304.8	37.0 76.0	16.8 34.5	18 AWG (solid) .040″ BC 6.4Ω/M′ 21.0Ω/km	Coax: .180 Pair: .059 (Color Code: Black & Red)	4.57 1.59	Coax: 95% BC Braid 3.1Ω/M′ 10.2Ω/km	.275 x .514	6.99 x 13.06	75	83%	16.3	53.5	1 10 50 100 200 400 700 900 1000	.2 .6 1.5 2.1 3.0 4.3 5.8 6.7 7.1	.7 2.1 4.8 6.9 9.8 14.1 19.0 22.0 23.3
RG-11/U • 14 AWG Solid .064″ Bare Copper Conductor • Duofoil® (100% Coverage) + Tinned Copper Braid Shield (60% Coverage)																			
Gas-injected Foam HDPE Insulation • Black PVC Jacket																			
80°C	**9292**	—	1000	304.8	75.0	34.0	14 AWG (solid) .064″ BC 2.6Ω/M′ 8.5Ω/km	.280	7.11	Duofoil + 60% TC Braid 3.0Ω/M′ 9.8Ω/km	.405	10.29	75	84%	16.1	52.8	1 10 50 100 200 400 700 900 1000	.2 .5 .9 1.3 1.6 2.3 3.3 4.0 4.3	.6 1.6 3.0 4.3 5.3 7.6 10.8 13.1 14.1
For Plenum versions of 9292, see 89292. 100% Sweep tested. 5 MHz to 450 MHz.																			
Suitable for Indoor and Outdoor applications.																			
RG-11/U • 14 AWG Solid .064″ Bare Copper Conductor • Duofoil (100% Coverage) + Tinned Copper Braid Shield (63% Coverage)																			
Plenum • Foam FEP Insulation • Black FEP Jacket																			
200°C	**89292**	NEC: CMP CATVP CEC: CMP FT6	500 1000	152.4 304.8	40.5 81.0	18.4 36.7	14 AWG (solid) .064″ BC 2.5Ω/M′ 8.2Ω/km	.274	6.96	Duofoil + 63% TC Braid 3.0Ω/M′ 9.8Ω/km	.346	8.79	75	83%	16.2	53.1	1 10 50 100 200 400 700 900 1000	.2 .4 1.0 1.5 2.2 3.3 4.5 5.2 5.5	.5 1.3 3.3 4.9 7.2 10.8 14.8 17.1 18.0
100% Sweep tested. 5 MHz to 450 MHz.																			
RG-11/U • 14 AWG Solid .064″ Bare Copper Conductor • Bare Copper Braid Shield (97% Coverage)																			
Gas-injected Foam HDPE Insulation • Black Polyethylene Jacket																			
80°C	**8213**	—	500 1000 2000	152.4 304.8 609.6	44.0 87.0 172.0	20.0 39.5 78.2	14 AWG (solid) .064″ BC 2.6Ω/M′ 8.5Ω/km	.285	7.24	BC Braid 97% Shield Coverage 1.1Ω/M′ 3.6Ω/km	.405	10.29	75	84%	16.1	52.8	1 10 50 100 200 400 700 900 1000	.2 .4 .9 1.3 1.9 2.9 4.1 4.8 5.2	.6 1.1 3.0 4.3 6.2 9.5 13.5 15.7 17.1
100% Sweep tested. 5 MHz to 450 MHz.																			
Suitable for Indoor and Outdoor applications.																			

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