



**Product:** [10GAB1](#)

CAT 6A 23AWG, U/UTP, LSZH Jkt, GB 31247 B1 Rating, Indoor

### Product Description

23 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, overall cabling, special Barrier tape, LSZH jacket, GB 31247 B1 Flame Rating

### Technical Specifications

#### Product Overview

Suitable Applications:	Horizontal and building backbone Cable. Support current and future category 6A and 6 applications: such as 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, ISDN, ATM and PoE application
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

#### Construction Details

##### Conductor

Size	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

##### Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene	1.18 mm (0.0465 in)	Blue & White, Orange & White with Orange Stripe, Green & White with Green Stripe, Brown & White with Brown Stripe

##### Outer Jacket

Separator	Material	Nom. Diameter
Barrier Tape	LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.5 mm (0.30 in)

#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance
93.8 Ohm/km	56 pF/m (17 pF/ft)	330 pF/100m

Table Notes: Maximum operating voltage: 72 Vdc

##### Delay

Max. Delay Skew
45 ns/100m

##### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1	74.3	72.3	67.8	64.8	20.0	67.0	67.0	40.0	35.0
4	3.8	65.3	63.3	55.8	52.8	23.0	67.0	66.2	40.0	23.0
10	5.9	59.3	57.3	49.7	46.7	25.0	67.0	58.2	40.0	15.0
16	7.5	56.2	54.2	43.7	40.7	25.0	67.0	54.1	38.0	10.9
31.25	10.5	51.9	49.9	37.9	34.9	23.6	67.0	48.3	35.1	
62.5	15.0	47.4	45.4	31.9	28.9	21.5	65.6	42.3	32.0	
100	19.1	44.3	42.3	27.8	24.8	20.1	62.5	38.2	30.0	
200	27.6	39.8	37.8	21.8	8.8	18.0	58.0	32.2	27.0	

250	31.1	38.3	36.3	19.8	16.8	17.3	56.5	30.2	26.0	
300	34.3	37.1	35.1	18.3	15.3	17.3	55.3	28.7	25.2	
500	45.3	33.8	31.8	13.8	10.8	17.3	52.0	24.2	23.0	

Table Notes: Horizontal Cable transmission characteristics

## Mechanical Characteristics

### Temperature

Operating	Installation
-20°C To +60°C	0°C To +50°C

### Bend Radius

Installation Min.
60 mm (2.4 in)

Max. Pull Tension: 80 N (18 lbf)

Bulk Cable Weight: 62 kg/km (42 lbs/1000ft)

## Standards and Compliance

Environmental Suitability:	Indoor, Non-Halogenated
GB Compliance:	GB 31247
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	TIA 568.2-D
ISO/IEC Compliance:	IEC 61156-5(2009), ISO/IEC 11801(2017), IEC 61034-2 - Smoke Density Min Transmittance = 60%
European Halogen Free Standards:	IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)

## Product Notes

Notes: According to GB 31247 Classification for burning behavior B1 – (d0, t0, a1), Hazard classification of material smoke toxicity - ZA2, Jacket sequentially marked

## History

Update and Revision: Revision Number: 0.32 Revision Date: 04-29-2024

## Part Numbers

### Variants

Item #	Color	Length
10GAB1 010305M	Black	305 m
10GAB1 006305M	Blue	305 m
10GAB1 008305M	Gray	305 m
10GAB1 009305M	White	305 m

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