


Product: [10GA24](#) 

CAT 6A 23AWG, U/UTP, LSZH Jkt, Indoor



Product Description

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

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 as well as PoE application etc.
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents .

Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
23	Solid	BC - Bare Copper	4

Insulation

Material	Color Code
PO - Polyolefin	White & Blue, White with Orange Stripe & Orange, White with Green Stripe & Green, White with Brown Stripe & Brown

Bonded-Pair: No

Outer Jacket Material

Separator Material	Material	Nom. Diameter
Barrier Tape	LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.2±0.3 mm

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. DCR Unbalanced Between Pairs [%]	Max. Capacitance Unbalance	Nom. Mutual Capacitance
95 Ohm/km at 20 Deg C	2%	4%	160 pF/100m	56 pF/ft

Delay

Frequency [MHz]	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
100 MHz	45 ns/100m	67%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	72.3 dB	71.2 dB	68.0 dB	65.0 dB	20.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	67.0 dB	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	66.3 dB	63.3 dB	60.5 dB	56.0 dB	53.0 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	66.2 dB	34.0 dB	23.0 dB
10 MHz	5.9 dB/100m	60.3 dB	57.3 dB	54.4 dB	48.0 dB	45.0 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	58.2 dB	30.0 dB	15.0 dB
16 MHz	7.5 dB/100m	57.2 dB	54.2 dB	52.4 dB	43.9 dB	40.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	54.1 dB	28.0 dB	10.9 dB
31.25 MHz	10.5 dB/100m	52.9 dB	49.9 dB	47.8 dB	38.1 dB	35.1 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	48.3 dB	25.1 dB	

62.5 MHz	15.0 dB/100m	48.4 dB	45.4 dB	45.4 dB	32.1 dB	29.1 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	65.6 dB	42.3 dB	22.0 dB
100 MHz	19.1 dB/100m	45.3 dB	42.3 dB	43.0 dB	28.0 dB	25.0 dB	20.1 dB	100 ± 15 Ohm	100 ± 15 Ohm	62.5 dB	38.2 dB	20.0 dB
125 MHz	21.5 dB/100m	43.8 dB	40.8 dB	40.4 dB	26.1 dB	23.1 dB	19.4 dB	100 ± 15 Ohm	100 ± 15 Ohm	61.0 dB	36.3 dB	19.0 dB
200 MHz	27.6 dB/100m	40.8 dB	37.8 dB	31.4 dB	22.0 dB	19.0 dB	18.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	58.0 dB	32.2 dB	17.0 dB
250 MHz	31.1 dB/100m	39.3 dB	36.3 dB	24.2 dB	20.0 dB	17.0 dB	17.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	56.5 dB	30.2 dB	16.0 dB
300 MHz	34.3 dB/100m	38.1 dB	35.1 dB	11.2 dB	18.5 dB	15.5 dB	17.3 dB	100 ± 22 Ohm	100 ± 22 Ohm	55.3 dB	28.7 dB	
500 MHz	45.3 dB/100m	34.8 dB	31.8 dB	6.3 dB	14.0 dB	11.0 dB	17.3 dB	100 ± 22 Ohm	100 ± 22 Ohm	52.0 dB	24.2 dB	
600 MHz	50.1 dB/100m	33.6 dB	30.6 dB	1.9 dB	12.4 dB	9.4 dB	17.3 dB	100 ± 30 Ohm	100 ± 30 Ohm	50.8 dB	22.6 dB	
650 MHz	52.3 dB/100m	33.1 dB	30.1 dB		11.7 dB	8.7 dB	17.3 dB	100 ± 30 Ohm	100 ± 30 Ohm	50.3 dB	21.9 dB	

Table Notes: Jacket sequentially marked. Limits for 1MHz, 600MHz, 650MHz are for information only.

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-20°C to +60°C	0°C to +50°C	-20°C to +60°C

Bend Radius

Installation Min.
50 mm

Max. Pull Tension:	110 N
Bulk Cable Weight:	52 kg/km

Standards and Compliance

Environmental Suitability:	Indoor, Indoor, Non-Halogenated
Flammability / Fire Resistance:	IEC 60332-1-2
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	TIA 568 2.D
European Halogen Free Standards:	IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance=60%, IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity=10, IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH=4.3

Product Notes

Notes:	Cold bend test: -30 x 4 Hrs, No Crack
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History

Update and Revision:	Revision Number: 0.6 Revision Date: 11-27-2020
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