



Product: [10GA24](#) 

CAT 6A 4P 23AWG, U/UTP, LSZH Jkt, Indoor

Product Description

CAT 6A 4PR x 23AWG U/UTP, Solid Bare Copper Conductors, PE Insulation, LSZH Jacket, Indoor

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, FDDI, ATM as well as PoE application etc.
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	1.14 mm (0.0449 in)	White & Blue, Orange & White with Orange Stripe, Green & White with Green Stripe, Brown & White with Brown Stripe

Outer Jacket

Material	Nom. Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.2 mm (0.28 in)	No

Table Notes: A Separator tape "EquiBlock™ Barrier Technology" wrapped below outer jacket

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
80.0 Ohm/km (24.4 Ohm/1000ft)	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	538 ns/100m	45 ns/100m	67%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [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	75.3	72.3	73.2	71.2	68.0	65.0	20.0	67.0	67.0	40.0	35.0
4	3.8	66.3	63.3	62.5	59.5	56.0	53.0	23.0	67.0	66.2	40.0	23.0
8	5.3	61.8	57.3	56.5	55.5	49.7	46.7	24.5	67.0	58.2	40.0	16.9
16	7.5	57.2	54.2	49.6	46.6	43.9	40.9	25.0	67.0	54.1	38.0	10.9
31.25	10.5	52.9	49.9	42.4	39.4	38.1	35.1	23.6	67.0	48.3	35.1	
62.5	15.0	48.4	45.4	33.4	30.4	31.9	28.9	21.5	65.6	42.3	32.0	
100	19.1	45.3	42.3	26.2	23.2	28.0	25.0	20.1	62.5	38.2	30.0	
125	21.5	43.8	40.8	22.3	19.3	26.1	23.1	19.4	61.0	36.3	29.0	

200	27.6	40.8	37.8	13.2	10.2	22.0	19.0	18.0	58.0	32.2	27.0	
250	31.1	39.3	36.3	8.2	5.2	19.8	16.8	17.3	56.5	30.2	26.0	
300	34.3	38.1	35.1	3.8	0.8	18.5	15.5	17.3	55.3	28.7	25.2	
500	45.3	34.8	31.8			14.0	11.0	17.3	52.0	24.2	23.0	
600	50.1	33.6	30.6			12.4	9.4	17.3	50.8	22.6		
650	52.3	33.1	30.1			11.7	8.7	17.3	50.3	21.9		

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

Mechanical Characteristics

Temperature

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

Bend Radius

Installation Min.
50 mm (2.0 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	52 kg/km (35 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor, Indoor, Non-Halogenated
Flammability / Reaction to Fire:	IEC 60332-1-2
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Halogen Free Standards:	IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3

Product Notes

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

History

Update and Revision:	Revision Number: 0.64 Revision Date: 01-29-2024
----------------------	-------------------------------------------------

Part Numbers

Variants

Item #	Color	Length
10GA24 010305M	Black	305 m
10GA24 006305M	Blue	305 m
10GA24 008305M	Gray	305 m
10GA24 005305M	Green	305 m
10GA24 003305M	Orange	305 m
10GA24 002305M	Red	305 m
10GA24 009305M	White	305 m
10GA24 004305M	Yellow	305 m

© 2024 Belden, Inc  
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.