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 https://www.belden.com/patents.

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 "EquiBlockTM 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: 0.68 Revision Date: 04-29-2024

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 2SP305M	Pink	305 m
10GA24 002305M	Red	305 m
10GA24 009305M	White	305 m
10GA24 004305M	Yellow	305 m

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