



Product: [10GB24](#)

10GB Category 6A Small Diameter Cable, 4 Pair, U/UTP, LSZH Indoor CPR Eca

Product Description

Category 6A Premise Horizontal Cable (550MHz), 4-Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Polyethylene Insulation, 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, FDDI, ATM
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	No. of Elements
23 AWG	Solid	BC - Bare Copper	4	8

Insulation

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

Cable Core

Description	Separator
4 pairs twisted to cable core covered with a polyester foil	Center Member (Patented X-Spline®), EquiBlock™ Barrier Technology

Outer Shield

Shield Type	Material
Tape	EquiBlock®

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.0 mm (0.28 in)

Overall Cable Diameter (Nominal):	7.0 mm (0.28 in)
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Electrical Characteristics

Electricals

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

Delay

Frequency	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	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]
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1	2.1	75.3	72.3	73.2	70.2	68	65.0	20	67.0	67.0	40	35
4	3.8	66.3	63.3	62.5	59.5	56	53.0	23	67.0	66.2	40	23
10	5.9	60.3	57.3	54.4	51.4	48	45.0	25	67.0	58.2	40	15
16	7.5	57.2	54.2	49.8	46.8	43.9	40.9	25	67.0	54.1	38	10.9
31.2	10.5	52.9	49.9	42.4	39.4	38.1	35.1	23.6	67.0	48.3	35.1	5.1
62.5	15	48.4	45.4	33.4	30.4	32.1	29.1	21.5	65.6	42.3	32	
100	19.1	45.3	42.3	26.2	23.2	28	25.0	20.1	62.5	38.2	30	
125	21.5	43.8	40.8	22.3	19.3	26.1	23.1	19.4	61.0	36.3	29	
200	27.6	40.8	37.8	13.2	10.2	22	19.0	18	58.0	32.2	27	
250	31.1	39.3	36.3	8.3	5.3	20	17.0	17.3	56.5	30.2	26	
300	34.3	38.1	35.1	3.9	0.9	18.5	15.5	17.3	55.3	28.7		
500	45.3	34.8	31.8	-10.4	-13.4	14	11.0	17.3	52.0	24.2		
550	47.7	34.2	31.2	-13.5	-16.5	13.2	10.2	14.9	51.4	23.4		

Voltage

Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

Operating	Installation
-30°C to 60°C	0°C To +50°C

Bend Radius

Stationary Min.	Installation Min.
29 mm (1.1 in)	58 mm

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	50 kg/km

Standards and Compliance

Environmental Suitability:	Euroclass Eca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
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 61034-2 - Smoke Density Min Transmittance = 60%
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = b
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, 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 CE Mark
UK Regulation Compliance:	UKCA Mark

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
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History

Update and Revision:	Revision Number: 0.330 Revision Date: 01-08-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
10GB24.06B100	Blue	Reel	100 m	8719605000040
10GB24.06305	Blue	Reel	305 m	8719605000026
10GB24.06500	Blue	Reel	500 m	8719605000033
10GB24.08305	Gray	Reel	305 m	8719605000071
10GB24.07B100	Purple	Reel	100 m	8719605000064
10GB24.07305	Purple	Reel	305 m	8719605169679
10GB24.07500	Purple	Reel	500 m	8719605000057

10GB24.09500	White	Reel	500 m	8719605000088
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