



Part Number: 10GB24

Category 6A Nonbonded-Pair U/UTP LSZH Cable

Product Description

Category 6A (500MHz), 4-Pair, U/UTP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyethylene Insulation, LSZH Jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor
Suitable Applications:	Horizontal and building backbone cable; Support current and future Cat. 6a and 6 applications such as; 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI and ATM

Physical Characteristics (Overall)

Conductor		
AWG	Material	No. of Pairs
23	BC - Bare Copper	4
Conductor Count:		8
Total Number of Pairs:		4
Conductor Size:		23 AWG

Insulation	
Material	Nominal Diameter
Polyethylene	1.18 mm

Color Chart	
Number	Color
Pair 1	White / Blue & Blue
Pair 2	White / Orange & Orange
Pair 3	White / Green & Green
Pair 4	White / Brown & Brown

Outer Shield Material	
Type	Material
Foil	Special barrier tape

Outer Jacket Material		
Material	Nominal Diameter	Diameter +/- Tolerance
LSZH / FRNC	7.2 mm	0.3 mm

Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %

Cabling	
Description	
4 pairs twisted together + cross web of polyolefin + overlapping polyester foil over cable core	
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	9 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
95 Ohm/km	4 %	2 %

Capacitance

Max. Capacitance Unbalanced Pair to Pair	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss	Nom. ACR [dB]	Nom. ACRF (ELFEXT) [dB]	Nom. Return Loss (RL)	Nom. PSANEXT	Nom. PSAACRF	Nom. TCL	Nom. ELTCTL
1 MHz	2.1 dB/100m	73.2 dB	68 dB		67 dB	67 dB	40 dB	35 dB
4 MHz	3.8 dB/100m	62.5 dB	56 dB	23 dB	67 dB	66.2 dB	34 dB	23 dB
10 MHz	5.9 dB/100m	54.4 dB	48 dB	25 dB	67 dB	58.2 dB	30 dB	15 dB
16 MHz	7.5 dB/100m	49.8 dB	43.9 dB	25 dB	67 dB	54.1 dB	28 dB	10.9 dB
31.2 MHz	10.5 dB/100m	42.4 dB	38.1 dB	23.6 dB	67 dB	48.3 dB	25.1 dB	5.1 dB
62.5 MHz	15 dB/100m	33.4 dB	32.1 dB	21.5 dB	65.6 dB	42.3 dB	22 dB	
100 MHz	19.1 dB/100m	26.2 dB	28 dB	20.1 dB	62.5 dB	38.2 dB	20 dB	
125 MHz	21.5 dB/100m	22.3 dB	26.1 dB	19.4 dB	61 dB	36.3 dB	19 dB	
200 MHz	27.6 dB/100m	13.2 dB	22 dB	18 dB	58 dB	32.2 dB	17 dB	
250 MHz	31.1 dB/100m	8.3 dB	20 dB	17.3 dB	56.5 dB	30.2 dB	16 dB	
300 MHz	34.3 dB/100m	3.9 dB	18.5 dB	17.3 dB	55.3 dB	28.7 dB		
500 MHz	45.3 dB/100m	-10.4 dB	14 dB	17.3 dB	52 dB	24.2 dB		

Delay

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

Current

Max. Recommended Current [A]
1.5 A

Voltage

Voltage Rating [V]
Max. 72 V DC

Temperature Range

Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-30°C To 60°C

Mechanical Characteristics

Bulk Cable Weight:	50 kg/km
Max Recommended Pulling Tension:	110 N

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CPR Euroclass:	Eca
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 6A
ANSI Compliance:	ANSI/TIA/EIA 568-C.2 (2009)

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2015-08-24
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Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1
Burning Load:	550 kJ/m
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color
10GB24.06305	Blue
10GB24.06500	Blue
10GB24.06B100	Blue
10GB24.08305	Gray
10GB24.07500	Purple
10GB24.07B100	Purple
10GB24.09500	White

Patent:	https://www.belden.com/resources/patents
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History

Revision Number:	2A
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