

301-6008LG-03BU

Cat 6 23 AWG Twisted Pair Cable



DESCRIPTION

Alantek Cat6 Twisted Pair Cable is designed to support high-bandwidth application up to 10 Gigabit Ethernet. The cable is composed of 23 AWG bare solid copper conductor insulated with High Density Polyethylene (HDPE) insulation. For the unshielded cable, the 4 twisted pairs are separated by flexible PE separator and the cable is completed with an PVC Outer Jacket.

APPLICATION

Horizontal wiring, suitable for application up to 10 Gigabit Ethernet.

PHYSICAL CHARACTERISTICS

Conductor

AWG

Pair	AWG	Stranding	Conductor Material	Diameter/Cond. (mm)
4	23	Soil	BC – Bare Copper	0.56 ± 0.01

Insulation

Insulation Material

Insulation Material	Nom. Wall Thickness (mm)	Diameter (mm)
HDPE – High Density Polyethylene	0.23	1.03 ± 0.01

Separator

Separator Material
PE – Polyethylene

Outer Jacket

Outer Jacket Material

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC – Polivinyll Chloride	0.52 ± 0.02

Overall Cabling

Overall Nominal Diameter Over Jacket : 6.4 ± 0.2 mm

Color Grey

Mechanical Characteristics (Overall Cable)

Operating Temperature Range	-20°C to 80°C
Temperature Rating	80°C
Max Pulling Tension	10.19 Kg
Min. Bend Radius	64 mm

Applicable Specifications and Agency Compliance (Overall Cable)

Applicable Standards

EU CE Mark (Y/N)	Yes
EU Directive 2002/95/EC (RoHS) (Y/N)	Yes
EU RoHS (Y/N)	Yes
UL Certificate	UL 444
Telecommunications Industry Association	TIA/EIA 568B.2
International Organization for Standardization	ISO/IEC 11801
Flame Test	CM

Electrical Characteristics (Overall Cable)

Nom. Characteristic Impedance

Impedance (1 - 100Mhz)	Impedance (101 - 200Mhz)
100 ± 15	100 ± 20

Mean Characteristic Impedance (1-350) Mhz

Characteristic Imped. (Ohm)
100 ± 25

Max. DC Resistance @ 20°C

DC Resistance(Ohm/100m)
9.38

Max. DC Resistance Unbalance

Resistance Unbalance
5%

DC Loop Resistance

DC Loop Resistance (Ohm/Km)
150

Max. Capacitance Unbalance (Pair to Ground)

Capacitance Unbalance (pF/100m)
330

Nom. Capacitance

Nom. Capacitance (nF/m)
5.6

Max. Propagation Delay

Propagation Delay (ns/100m)
45

Max. Delay Skew

Delay Skew (ns/100m)
40

Nominal Velocity of Propagation

Velocity of Propagation
68 %

Electrical & Physical Properties

ELECTRICAL & PHYSICAL PROPERTIES								
FREQ Mhz	ATTN. dB/100m	NEXT dB	ACR dB/100m	RL dB	PS NEXT dB	PS ACR dB/100m	ELFEXT dB	PS ELFEXT dB
1.0	2.0	74.3	72.3	20.0	72.3	70.3	67.8	64.8
4.0	3.8	65.3	61.5	23.0	63.3	59.5	55.8	52.8
8.0	5.3	60.8	55.5	24.5	58.8	53.5	49.7	46.7
10.0	6.0	59.3	53.3	25.0	57.3	51.3	47.8	44.8
16.0	7.6	56.2	48.6	25.0	54.2	46.6	43.7	40.7
20.0	8.5	54.8	46.3	25.0	52.8	44.3	41.8	38.8
25.0	9.5	53.3	43.8	24.3	51.3	41.8	39.8	36.8
31.25	10.7	51.9	41.2	23.6	49.9	39.2	37.9	34.9
62.5	15.4	47.4	32.0	21.5	45.4	30.0	31.9	28.9
100.0	19.8	44.3	24.5	20.1	42.3	22.5	27.8	24.8
200.0	29.0	39.8	10.8	18.0	37.8	8.8	21.8	18.8
250.0	32.8	38.3	5.5	17.3	36.3	3.5	19.8	16.8
300.0	36.4	37.1	-	16.8	35.1	-	18.3	15.3
350.0	39.8	36.1	-	16.3	34.1	-	16.8	13.9

Part Number

301-6008LG-03BU	Cat 6 Unshielded Twisted Pair, 4-pair Solid Cable, PVC, Blue – 305m/reel
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Product Family

301-6008LG-03GY	Cat 6 Unshielded Twisted Pair, 4-pair Solid Cable, PVC, Grey – 305m/reel
301-60F8LG-03GY	Cat 6 Shielded Twisted Pair, 4-pair Solid Cable, PVC, Grey – 305m/reel

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