

301-600851-03BU

Cat 6 24 AWG Twisted Pair Cable, PVC Jacket



DESCRIPTION

Alantek Cat6 Twisted Pair Cable is designed to support high-bandwidth application up to 10 Gigabit Ethernet. The cable is composed of 24 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	24	Solid	BC – Bare Copper	0.515

Insulation

Insulation Material

Insulation Material	Nom. Wall Thickness (mm)	Diameter (mm)
HDPE – High Density Polyethylene	0.23	0.94 ± 0.01

Separator

Separator Material
PE – Polyethylene

Outer Jacket

Outer Jacket Material

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC – Polivinyll Chloride	0.50 ± 0.05

Overall Cabling

Overall Nominal Diameter Over Jacket : 5.6 ± 0.2 mm

Color Blue

Mechanical Characteristics (Overall Cable)

Operating Temperature Range	-20°C to 75°C
Cable Weight	36 kg/km
Tensile Strength at rupture of insulation	≥ 16.5 Mpa
Elongation at rupture of sheath insulation	≥ 300%
Tensile Strength at rupture of sheath	≥ 12.5 Mpa
Elongation at rupture of sheath	≥ 125%

Impedance	100 ± 15 Ω
DC Resistance Unbalance, max	5%
DC Loop Resistance	150 Ω/km
Conductor Resistance, max. @20°C	9.38 Ω/100m
Insulation resistance	≥ 5000 MΩ/km
Capacitance Unbalance	330 pF/100m
Mutual Capacitance	≤ 56 nF/km
Propagation Delay, max.	536 ns/100m
Delay Skew, max.	45 ns/100m
Nominal Velocity of Propagation (NVP)	69%
Min Bend Radius	24 mm
Max Tensile Load (Installation)	80 N
Voltage	≤ 80 V RMS

Applicable Specifications and Agency Compliance (Overall Cable)

Applicable Standards

RoHS Compliant	Yes
UL Certificate	UL 444
EN Standards	EN 50173
Telecommunications Industry Association	ANSI/TIA-568.2-D
International Organization for Standardization	ISO/IEC 11801
Flame Test	CM

Electrical & Physical Properties

ELECTRICAL & PHYSICAL PROPERTIES								
FREQ	ATTN.	NEXT	ACR	RL	PS NEXT	PS ACR	ELFEXT	PS ELFEXT
Mhz	dB/100m	dB	dB/100m	dB	dB	dB/100m	dB	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

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Cat 6 24AWG Unshielded Twisted Pair, 4-pair Solid Cable, PVC, Blue – 305m/reel

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