

Category 6 U/UTP 23AWG LAN Cable

Description

Rated temperature	:	75°C
Reference standard	:	UL444, ANSI/TIA-568-C.2, ISO/IEC 11801, IEC 61156-5, Intertek, RoHs
Product standard certification	:	
Flame test	:	Oxygen free copper conductor Colour-coded PE insulation PVC Jacket

Application

:	100Base-T4
:	100Base-TX
:	100VG-AnyLAN
:	1000Base-T
:	1000Base-TX
:	155Mbps ATM
:	622Mbps ATM
:	POE (IEEE 802.3af, IEEE 802.3at)
:	TP-PMD, TPDDI, ISDN, VoIP
:	Analog & Digital Voice and Video

Physical Characteristics

Structure

Construction	:	U/UTP
Number of Pairs	:	4 Pairs

Conductor

AWG	:	23 AWG
Conductor material	:	Solid bare copper
Conductor dimension	:	0.57±0.02 mm.

Insulation

Insulation material	:	DHPE
Insulation dimension	:	1.01±0.05 mm.
Number colour	:	White&Blue/Blue

(Ring or stripe or pure marking)

White&Orang/Orang
White&Green/Green
White&Brown/Brown

Cabling

Twisting lay length	:	≤30 mm.
Cabling lay length	:	≤200 mm.

Filler

Filler material	:	Yes
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Outer jacket

Jacket material	:	PVC
Jacket thickness nominal	:	0.50 mm.
Overall nominal dimension	:	6.10±0.30 mm.
Rip cord	:	Yes

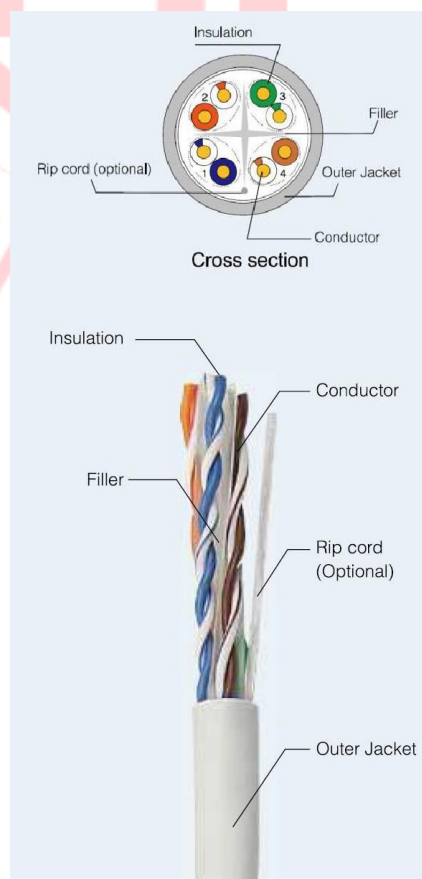
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Mechanical Characteristics

Operating temperature range	:	-20 ~ 75 °C
Bulk cable weight approx.	:	39.0 kg/km.
Max. recommended pulling tension	:	110N
Min. bend radius (install)	:	4 x O.D.
Outer jacket tensile strength	:	≥9.0MPa
Outer jacket elongation	:	≥100%
Outer jacket aging condition	:	100°C x 168 hrs
After aging, tensile strength	:	≥70% of Unaging
After aging, elongation	:	≥50% of Unaging
Cold band	:	On Crack (@ -20°C x 4hrs)

Electrical Characteristics

Nom, mutual capacitance	:	≤5.6 nF/100m (@1kHz)
Pair to ground capacitance unbalance:	:	≤330 pF/100m
Nominal velocity of propagation	:	67%
Max. delay skew	:	45 ns/100m
Max. conductor DC resistance	:	9.50Ω/100m (@20°C)
Max. conductor resistance unbalance:	:	5% (@20°C) within a pair
Min insulation resistance	:	5000 MΩ.km
Max. operating voltage – UL	:	300V
Dielectric strength	:	2.5kv d.c. for 2 s
Conductor/conductor	:	Or 1.0kv d.c. for 1 min



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Electrical Characteristics

Freq	Character Impadance Upper limit	Character Impadance lower limit	RL	ATT	NEXT	PS NEXT	ACRF	PS ACRF	PD
(MHz)	(Ω)	(Ω)	(dB Min)	(dB/100m)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max)
1	122.2	81.8	20.0	2.0	74.3	72.3	67.8	64.8	570.0
4	115.2	86.8	23.0	3.7	65.3	63.3	55.8	52.8	552.0
8	112.6	88.8	24.5	5.3	60.8	58.6	49.7	46.7	546.7
10	111.9	89.4	25.0	5.9	59.3	57.3	47.8	44.8	545.4
16	111.9	89.4	25.0	7.5	56.2	54.2	43.7	40.7	543.0
20	111.9	89.4	25.0	8.4	54.8	52.8	41.8	38.8	542.0
25	112.9	88.5	24.3	9.5	53.3	51.3	39.8	36.8	541.2
31.25	114.1	87.7	23.6	10.6	51.9	49.9	37.9	34.9	540.4
62.5	118.3	84.5	21.5	15.4	47.4	45.4	31.9	28.9	538.6
100	121.9	82	20.1	19.8	44.3	42.3	27.8	24.8	537.3
150	125.7	79.6	18.9	24.7	41.7	39.7	24.3	21.3	536.9
200	128.8	77.6	18	29.0	39.8	37.8	21.8	18.8	536.5
250	131.5	76.0	17.3	32.8	38.3	36.3	19.8	16.8	536.3
300	131.6	76.0	16.8	36.4	37.1	35.1	18.3	15.3	536.1
400	131.6	76.0	15.9	43.0	35.3	33.3	15.8	12.8	535.8
550	131.6	76.0	14.9	51.8	33.2	31.2	13.0	10.0	535.5
600	131.6	76.0	14.7	54.5	32.6	30.6	12.2	9.2	535.5

Remark :

- 1> Cable that meet the requirements of the template are not required to be measured for return loss; alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.
- 2>The cable performance between 250MHz is achieved by design only, so the values in above table are provided for information only.

Information

Part Number	Description	Length (ft)	Colour
C6-8305	LAN Cable 23AWG U/UTP CAT 6 CMR	1000	Gray