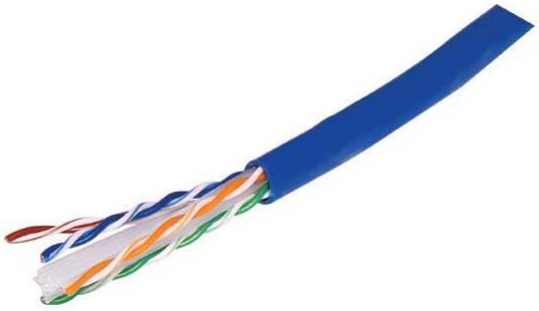
Cat.6A U/UTP AWG23/1

LAN cable with 4 pairs,
category 6A , without screen

Standards: ISO/IEC 11801, IEC 61156-5
EN 50173-1, EN 50288-11-1; EIA/TIA 568-B



Ambient installation T° C range
0 + 50 °C

Operating temp.
-20 + 60 °C

Storage temperature range
-20 + 70 °C

Flame retardant
IEC 60332-1

Smoke density

Application

Cat. 6A cables with 4 twisted pairs, 100 ohms very high speed, for horizontal floor or backbone distribution. This cables enable the use of protocols supported by Class EA for 10G Base-T applications. It is characterised up to 500 MHz 802.3 bt PoE++ up to type 4 applications compatible according to installation standards ISO/IEC 14763-2 : 2019 and EN 50174-2 : 2018

Category 6A U/UTP cables are specifically designed to deliver robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 meters. Each Category 6A U/UTP exceed the minimum specified performance for Category 6A U/UTP cables and support all CLASS EA applications. Conform to IEC, EIA-TIA performance requirements ,23AWG premium grade copper conductor and cable structure with cross separator inside for better cable performance

Temperature limit conditions:

- Ambient installation temperature, range: from 0°C to +50°C
- Operating temperature, range: from -20 °C to +60°C

Mechanical properties:
Minimum internal bending radius:
(D = cable outer diameter)
• No load 4xD
• during installation (under load): 8xD
• packaging: 305m in box, 500m on wooden reel

Flame resistance:
• the cable is self-extinguishing according to IEC 60332-1 / EN 60332-1
• LSHF version additionally:
- halogen-free according to IEC 60754-2; IEC 60332-1
- non-corrosive combustion gases according to IEC 60754-2
- minimal smoke emission according to IEC 61034-2

Cable construction

Conductor category class:	1 = solid conductor
Conductor material	Pure copper
AWG size	23/1
Insulation material (HDPE)	Skin-Foam-Skin or Polyethylene
Nominal diameter through insulation	1.28 mm
Twisting:	2 cores in a pair
Cable lay up:	4 pairs to the core PE cross separator (spline)
Sheath:	PVC or LSHF (LSZH,FRNC)
Outer diameter:	6.3-6.6 mm
Sheath color:	Grey(RAL 7001); blue (RAL 5024)

Conductor color marking:
• 1st suit: blue/white with blue line
• 2nd suit: orange/white with orange line
• 3rd suit: green/white with green line
• 4th suit: brown/white with brown line

Electrical characteristics at 20°C ± 5°C

Resistance unbalance , max.	% 2
Loop resistance at 20°C , max.	(Ω/km) ≤ 178
Test voltage (DC,1min)	v 1000
Operating voltage, max.	v 125
Capacitance unbalance	(pF/km) ≤ 1500
Capacitance at 800 Hz	nF/km 43

Transmission characteristics

Propagation delay (max. 100MHz)	(ns/100m) ≤427
Delay skew	(ns/100m) ≤ 12
Nominal propagation speed	approx. 66 %

Technical data

Cable type	Number of pairs (23AWG)	insulation diameter mm	Outer diameter mm	weight kg/km	Tensile force N
Cat 6A U/UTP PVC	4	1.28	6.3-6.5	44-46	100
Cat 6A U/UTP LSZH	4	1.28	6.4-6.6	48-50	100

Electrical performance

f (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1	2.1	76	73	74	71	67	65	20
4	3.8	67	64	63.2	60.2	55	53	23
10	5.9	61	58	54.9	51.9	47	45	25
16	7.5	58	55	50.2	47.2	43	41	25
20	8.4	56	53	48.5	45.5	41	39	25
31.25	10.5	53	50	43.2	40.2	37	35	23.6
62.5	15.0	49	46	33.4	30.4	31	29	21.5
100	19.1	46	43	26.2	23.2	27	25	20.1
200	27.6	41	38	13.2	10.2	21	19	18
250	31.1	39	36	8.3	5.3	19	17	17.3
300	34.3	38	35	3.9	0.9	17	15	17.3
400	40.1	37	34	-3.8	-6.8	15	13	17.3
500	45.3	35	32	-10.4	-13.4	14	12	17.3

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