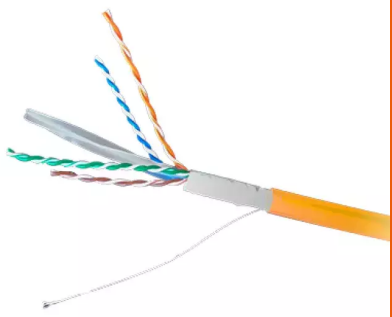
LANmark-6A UTP Cable

LANMARK-6A UTP AWG24 CAT 6A LSZH DCA S2 D2 A1 ORANGE 500M REEL

Aginode Ref: N100.634G-OD

- Fully compliant with Category 6A standards
- Support 10GBase-T applications
- Guaranteed performance to 500MHz
- Noise immunity tape for enhanced Alien Crosstalk performance
- Reaction-to-fire performance according to CPR classification Dca-s2,d2,a1 (h/EN50575:2014+A1:2016)



STANDARDS

ANSI/TIA 568.2-D
EN 50173-1
EN 50288
IEC 61156-5
IEEE 802.3bt (PoE++)
ISO/IEC 11801

Application

LANmark-6A cables have been specifically designed to support the higher frequencies required for 10 Gigabit Ethernet, whilst maintaining full backwards compatibility with lower speed applications.

They are manufactured and tested to the latest Category 6A specifications of the European, international and American cable standards and meet the quality and performance criteria needed to support all applications up to 500 MHz.

- 10Base-T Ethernet
- 100Base-TX Fast Ethernet
- 1000Base-TX Gigabit Ethernet
- 10GBase-T 10 Gigabit Ethernet
- 155 Mbit ATM
- 1.2 Gbit ATM
- future Cat 6A and Class EA applications

Design

Aginode LANmark-6A UTP cables feature a double-sided plasticized alu tape which ensures the stringent internal and Alien Crosstalk requirements for Category 6A are met whilst requiring no earthing or bonding.

The cables have a central cross element which maintains the stability of the cable geometry and reduces the risk of decreased performance when bending the cable.

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.

They feature an Orange LSZH sheath and are available in both EuroClass Dca and Cca compliant versions according to EN50575:2014+A1:2016.

Performance

With guaranteed performance to 500MHz, Aginode LANmark-6A UTP cables meet the requirements of the International, European and American cable standards for Category 6A as specified in IEC 61156-5, EN 50288 and TIA/EIA 568.2-D.

Systems built with LANmark-6A UTP cable and connectors, in conjunction with LANmark-10G patch cords, support 10GBase-T applications as defined in IEEE 802.3an and meet the link and channel requirements for Category 6A and Class EA as specified in TIA/EIA 568.2-D and ISO/IEC 11801 including all alien crosstalk related parameters.

Installation

LANmark-6A UTP cable allows swift and rapid installation as no earthing or bonding is required.

To support the correct set-up of hand held analysers for installation testing, the actual cable NVP value is given in the cable print legend.

Guarantees

Traceability codes on both cable and packaging ensure quality validation of the installed cable.

Installations with LANmark-6A UTP cable and connectivity qualify for a 25 year Class EA Channel warranty when used in combination with LANmark patch cords.

Electrical Performance LANmark-6A UTP Cable

Freq in MHz	Attn in dB Max.	NEXT in dB Min.	PSNEXT in dB Min.	ACR-F in dB Min.	PS ACR-F in dB Min.	TCL in dB Min.	ELTCTL in dB Min.	PS ANEXT in dB Min.	PS AACR-F in dB Min.	RL in dB Min.
1	2,1	75,0	72,3	67,8	64,8	40,0	35,0	67,0	67,0	20,0
4	3,8	66,3	63,3	55,8	52,8	40,0	23,0	67,0	66,2	23,0
10	5,9	60,3	57,3	47,8	44,8	40,0	15,0	67,0	58,2	25,0
16	7,5	57,2	54,2	43,7	40,7	38,0	10,9	67,0	54,1	25,0
20	8,4	55,8	52,8	41,8	38,8	39,0	NA	67,0	52,2	25,0
31,25	10,5	52,9	49,9	37,9	34,9	35,1	NA	67,0	48,3	23,6
62,5	15,0	48,4	45,4	31,9	28,9	32,0	NA	65,6	42,3	21,5
100	19,1	45,3	42,3	27,8	24,8	30,0	NA	62,5	38,2	20,1
155	24,1	42,0	39,4	24,0	21,0	28,5	NA	59,6	34,4	18,8
200	27,6	40,8	37,8	21,8	18,8	27,0	NA	58,0	32,2	18,0
250	31,1	39,3	36,3	19,8	16,8	26,0	NA	56,5	30,2	17,3
300	34,3	38,1	35,1	18,3	15,3	25,2	NA	55,3	28,7	17,3
500	45,3	34,8	31,8	13,8	10,8	23,0	NA	52,0	24,2	17,3

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LANmark-6A UTP AWG24 Cat 6A LSZH Dca s2 d2 a1 Orange 500m reel

Characteristics

Construction characteristics	
Colour	Orange
Outer sheath	LSZH
Type of cable	UTP
Dimensional characteristics	
Approximate weight	50 kg/km
Conductor cross-section (AWG/KCMIL)	24
Diameter over insulation	1.12 mm
Nominal outer diameter (mm)	7.4 mm
Electrical characteristics	
Characteristic impedance	100 Ohm
Max. DC resistance of the conductor at 20°C	85 Ohm/km
Mutual capacitance	56 nF/km
Mechanical characteristics	
Maximum operating pulling force	100 N
Transmission characteristics	
Attenuation Crosstalk Ratio, 250MHz	8.2 dB/100m
Nominal Velocity of Propagation (NVP)	68 %
Propagation delay, max. 100 MHz	536 ns/100m
Skew	45 ns/100m
Usage characteristics	
Ambient installation temperature, range	0...50 °C
Category	Cat. 6A
Fire retardant	EN IEC 60332-3-22 (cat A)
Flame retardant	IEC 60332-1
Gases corrosivity	IEC 60754-1; IEC 60754-2

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Length	500 m
Minimum Bend Radius - During Installation (under Tension)	59.2 mm
Minimum Bend Radius - Installed	29.6 mm
Operating temperature, range	-20...60 °C
Packaging	Reel
Range	LANmark-6A
Smoke density	IEC 61034

Documentation

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