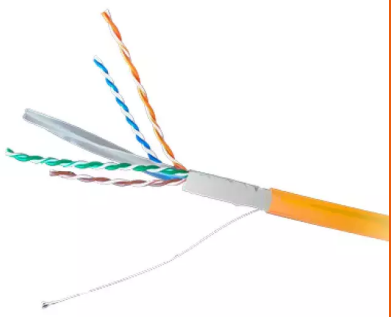
# LANmark-6A UTP Cable

**LANMARK-6A UTP AWG23 CAT 6A LSZH ORANGE 305M/BOX**



**Aginode Ref:** N100.638G

- Fully compliant with Category 6A standards
- Support 10GBase-T applications
- Guaranteed performance to 500MHz
- Noise immunity tape for enhanced Alien Crosstalk performance

## 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.

## Performance

With guaranteed performance to 500MHz, Aginode LANmark-6A UTP cables meet the requirements of the International,

## STANDARDS

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

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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 AWG23 Cat 6A LSZH Orange 305m/BOX

## Characteristics

| | |
|---|---|
| **Construction characteristics** | |
| Colour | Orange |
| Outer sheath | LSZH |
| Type of cable | UTP |
| **Dimensional characteristics** | |
| Approximate weight | 50 kg/km |
| Conductor cross-section (AWG/KCMIL) | 23 |
| Diameter over insulation | 1.12 mm |
| Nominal outer diameter (mm) | 7.1 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 |
| Propagation delay, max. 100 MHz | 536 ns/100m |
| Skew | 45 ns/100m |
| **Usage characteristics** | |
| Ambient installation temperature, range | 0...50 °C |
| Category | Cat. 6A |
| Flame retardant | IEC 60332-1 |
| Gases corrosivity | IEC 60754-1; IEC 60754-2 |
| Length | 305 m |
| Minimum Bend Radius - During Installation (under Tension) | 56.8 mm |
| Minimum Bend Radius - Installed | 28.4 mm |
| Operating temperature, range | -20...60 °C |
| Packaging | Reel in a box |
| Range | LANmark-6A |

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| | |
|---|---|
| Smoke density | IEC 61034 |

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