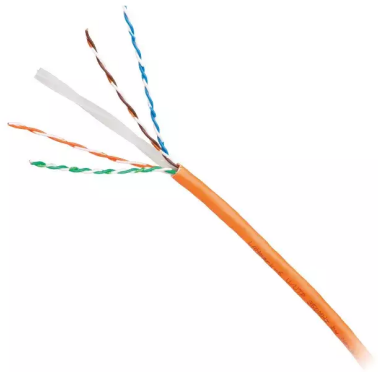
# LANmark-6 U/UTP Cable

**LANMARK-6 U/UTP AWG23 CAT 6 350MHZ LSZH CCA S1A D1 A1 ORANGE 500M REEL**

**Aginode Ref:** N100.605-OC

- Compliant with all Category 6 cable standards
- Supports Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz
- Enhanced reaction-to-fire performance according to CPR classification Cca-s1a,d1,a1 (h/EN50575:2014+A1:2016)



## STANDARDS

ANSI/TIA-568-C.2
EN 50173-1
EN 50288
IEC 60332-3
IEC 61156-5
ISO/IEC 11801

## Application

Aginode LANmark-6 cables are the ideal solution for most of today's network requirements in normal office environments. They are manufactured and tested to the latest Category 6 specifications defined in the International and American cable standards and are designed to meet the quality and performance criteria needed to support all applications up to 250 MHz.

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethernet
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM
- Future class E applications

## Design

The LANmark-6 U/UTP cables have a central cross element which helps maintaining the stability of the cable geometry and reduces the risk of a reduction in performance when bending the cable.
The cables are available with a Dark Grey PVC or an Orange LSZH sheath. Both versions have flame retardant properties compliant with IEC 60332-1 and are compliant with EuroClass Eca according to EN50575:2014 +A1:2016.

EuroClass Dca and Cca versions are also available.

*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.*

# Performance

Tested to 350 MHz and with guaranteed performance to 250 MHz, Aginode LANmark-6 cables exceed the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

# Installation

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

# Guarantees

The LANmark-6 cable performance is guaranteed to meet or exceed the requirements of the above mentioned standards.

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

Installations with LANmark-6 cable and connectivity are qualified for a 25 year full system warranty, which includes Parts, Channel Performance, Application Support and Labour, as described in the Aginode Certified System Warranty.

## Electrical Performance LANmark-6 U/UTP Cable

| | IL | | NEXT | | PSNEXT | | ACR-F | | PS ACR-F | | RL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Freq. | in Db/100m | | in dB | | in dB | | in dB | | in dB | | in dB | |
| in MHz | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. |
| 1 | 2,0 | 2,0 | 74,3 | 80,3 | 72,3 | 78,3 | 67,8 | 72,8 | 64,8 | 69,8 | 20,0 | 22,0 |
| 4 | 3,8 | 3,8 | 65,3 | 71,3 | 63,3 | 69,3 | 55,8 | 60,8 | 52,8 | 57,8 | 23,0 | 25,0 |
| 10 | 6,0 | 6,0 | 59,3 | 65,3 | 57,3 | 63,3 | 47,8 | 52,8 | 44,8 | 49,8 | 25,0 | 27,0 |
| 16 | 7,6 | 7,6 | 56,2 | 62,2 | 54,2 | 60,2 | 43,7 | 48,7 | 40,7 | 45,7 | 25,0 | 27,0 |
| 20 | 8,5 | 8,5 | 54,8 | 60,8 | 52,8 | 58,8 | 41,8 | 46,8 | 38,8 | 43,8 | 25,0 | 27,0 |
| 31,25 | 10,7 | 10,7 | 51,9 | 57,9 | 49,9 | 55,9 | 37,9 | 42,9 | 34,9 | 39,9 | 23,6 | 25,6 |
| 62,5 | 15,4 | 15,4 | 47,4 | 53,4 | 45,4 | 51,4 | 31,9 | 36,9 | 28,9 | 33,9 | 21,5 | 23,5 |
| 100 | 19,8 | 19,8 | 44,3 | 50,3 | 42,3 | 48,3 | 27,8 | 32,8 | 24,8 | 29,8 | 20,1 | 22,1 |
| 155 | 25,2 | 25,2 | 41,4 | 47,4 | 39,4 | 45,4 | 24,0 | 29,0 | 21,0 | 26,0 | 18,8 | 20,8 |
| 200 | 29,0 | 29,0 | 39,8 | 45,8 | 37,8 | 43,8 | 21,8 | 26,8 | 18,8 | 23,8 | 18,0 | 20,0 |
| 250 | 32,8 | 32,8 | 38,3 | 44,3 | 36,3 | 42,3 | 19,8 | 24,8 | 16,8 | 21,8 | 17,3 | 19,3 |
| 300 | - | 36,4 | - | 43,1 | - | 41,1 | - | 23,3 | - | 20,3 | - | 18,8 |
| 350 | - | 39,8 | - | 42,1 | - | 40,1 | - | 21,9 | - | 18,9 | - | 18,3 |

*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.*

# LANmark-6 U/UTP AWG23 Cat 6 350MHz LSZH Cca s1a d1 a1 Orange 500m reel

## Characteristics

| | |
|---|---|
| **Construction characteristics** | |
| Colour | Orange |
| Outer sheath | LSZH |
| Screen | Unshielded |
| Type of cable | U/UTP |
| **Dimensional characteristics** | |
| Approximate weight | 38 kg/km |
| Conductor cross-section (AWG/KCMIL) | 23 |
| Diameter over insulation | 1.02 mm |
| Nominal outer diameter (mm) | 6.0 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 | 5.5 dB/100m |
| Coupling attenuation at 30 MHz | 45 dB |
| Nominal Velocity of Propagation (NVP) | 68 % |
| Propagation delay, max. 100 MHz | 536 ns/100m |
| Skew | 30 ns/100m |
| **Usage characteristics** | |
| Ambient installation temperature, range | -10...60 °C |
| Category | Cat. 6 |
| Field of application | Indoor |

*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.*

| | |
|---|---|
| Fire retardant | IEC 60332-3 |
| Flame retardant | IEC 60332-1 |
| Length | 500 m |
| Minimum Bend Radius - During Installation (under Tension) | 48 mm |
| Minimum Bend Radius - Installed | 24 mm |
| Operating temperature, range | -20...60 °C |
| Packaging | Reel |
| Range | LANmark-6 |
| Smoke density | IEC 61034 |

## Declaration of Performance

DoP_N100_605_OC_EN_10541990.pdf pdf — 664.26 KB Download

*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.*