

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)

DESCRIPTION

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.

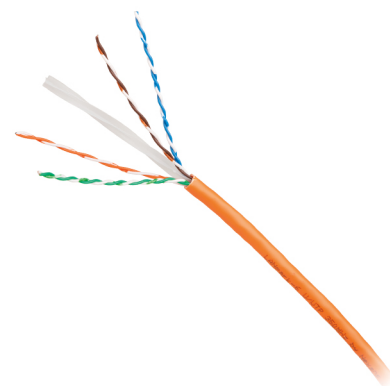
EuroClass Dca and Eca versions are also available.

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.



You may see a combination of brands on documents or products during the transition.

DECLARATION OF PERFORMANCE

Cca-s1a,d1,a1

STANDARDS

International EN 50173-1;
EN 50288; IEC 60332-3;
IEC 61156-5; ISO/IEC 11801

National ANSI/TIA-568-C.2



Ambient installation T°C range
-10 ... 60 °C



Operating temp.
-20 ... 60 °C



Flame retardant
IEC 60332-1



Fire retardant
IEC 60332-3



Smoke density
IEC 61034

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.

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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.



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-10 ... 60 °C



Operating temp.
-20 ... 60 °C



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CHARACTERISTICS

Construction characteristics

| | |
|---------------|------------|
| Type of cable | U/UTP |
| Outer sheath | LSZH |
| Colour | Orange |
| Screen | Unshielded |

Dimensional characteristics

| | |
|-------------------------------------|----------|
| Minimum outer diameter | - mm |
| Maximum outer diameter | - mm |
| Diameter over insulation | 1.02 mm |
| Conductor cross-section (AWG/KCMIL) | 23 |
| Approximate weight | 46 kg/km |
| Nominal outer diameter | 6.5 mm |
| Number of pairs | - |

Electrical characteristics

| | |
|---|-----------|
| Characteristic impedance | 100 Ohm |
| Max. DC resistance of the conductor at 20°C | 85 Ohm/km |
| Mutual capacitance | 56 nF/km |

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 |

Mechanical characteristics

| | |
|---------------------------------|-------|
| Maximum operating pulling force | 100 N |
|---------------------------------|-------|

Usage characteristics

| | |
|---|---------------|
| Category | Cat. 6 |
| Range | LANmark-6 |
| Minimum Bend Radius - During Installation (under Tension) | 52 mm |
| Minimum Bend Radius - Installed | 26 mm |
| Ambient installation temperature, range | -10 ... 60 °C |
| Operating temperature, range | -20 ... 60 °C |
| Flame retardant | IEC 60332-1 |
| Fire retardant | IEC 60332-3 |
| Smoke density | IEC 61034 |
| Length | 500 m |
| Packaging | Reel |
| Field of application | Indoor |

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ELECTRICAL PERFORMANCE LANMARK-6 U/UTP CABLE

| Freq. in MHz | IL | | NEXT | | PSNEXT | | ACR-F | | PS ACR-F | | RL | |
|-----------------|------------|------|-------|------|--------|------|-------|------|----------|------|-------|------|
| | in Db/100m | | in dB | | in dB | | in dB | | in dB | | in dB | |
| | 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 |

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