

# LANmark-6 Cable

## LANMARK-6 F2/UTP PVC 500M REEL

**Aginode Ref:** N100.661

- Comply with all Category 6 cable standards
- Support Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz

## 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 F2/UTP cables have AWG 23 solid copper wires and comply with IEC 60228. The PE central cross filler helps maintain 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 sheath compliant with IEC 60332-1.

## 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,



## STANDARDS

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

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.

including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

## Installation

LANmark-6 F2/UTP cables have a shielded construction with a double global foil around the 4 pairs, offering optimal EMC performance. The outer screen is removed when stripping the outer sheath, leaving the inner foil in place with the aluminium side facing outwards. This increases installation efficiency as the foil does not need to be folded back to establish contact with the EMC rear cover of the LANmark connectors.

## 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 Cable

| Freq.<br>in MHz | IL<br>in Db/100m |      | NEXT<br>in dB |      | PSNEXT<br>in dB |      | ACR-F<br>in dB |      | PS ACR-F<br>in dB |      | RL<br>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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# LANmark-6 F2/UTP PVC 500m reel

## Characteristics

### Construction characteristics

|               |                   |
|---------------|-------------------|
| Colour        | Grey              |
| Screen        | Aluminium foil    |
| Outer sheath  | PVC               |
| Type of cable | F <sup>2</sup> TP |

### Dimensional characteristics

|                                     |         |
|-------------------------------------|---------|
| Conductor cross-section (AWG/KCMIL) | 23      |
| Diameter over insulation            | 1.13 mm |
| Nominal outer diameter (mm)         | 7.7 mm  |

### Electrical characteristics

|                          |          |
|--------------------------|----------|
| Mutual capacitance       | 56 nF/km |
| Characteristic impedance | 100 Ohm  |

### Mechanical characteristics

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

### Transmission characteristics

|                                       |             |
|---------------------------------------|-------------|
| Skew                                  | 45 ns/100m  |
| Attenuation Crosstalk Ratio, 250MHz   | 5.5 dB/100m |
| Nominal Velocity of Propagation (NVP) | 69 %        |
| Coupling attenuation at 30 MHz        | >70 dB      |
| Propagation delay, max. 100 MHz       | 536 ns/100m |

### Usage characteristics

|   |             |
|---|-------------|
| Range   | LANmark-6   |
| Operating temperature, range                              | -20...60 °C |
| Category  | Cat. 6      |
| Flame retardant   | IEC 60332-1 |
| Packaging   | Reel        |
| Ambient installation temperature, range                   | -10...60 °C |
| Minimum Bend Radius - During Installation (under Tension) | 58 mm       |

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## ドキュメンテーション

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