

LANmark-6A Cable

LANmark-6A F1/UTP Cat 6A 500MHz LSZH 1000m reel

Nexans ref.: N100.622G

- Ideal Cable for 10GBase-T application
- Complies fully with new standards for Category 6A and Class EA
- Small diameter
- Guaranteed performance up to 500MHz
- Fully screened for alien crosstalk immunity
- Foil with aluminium layer outside offers instant and large surface screening contact with EVO connectors
- Easier and much faster to install than individually screened 10G cables

Description

Application

LANmark-6A cable is the ideal solution for a 10 Gigabit Ethernet network. The range consists of cables which have been designed specifically to support the higher frequencies required for 10 Gigabit Ethernet, while maintain to be fully backwards compatible with today's needs. All LANmark-6A products are screened cables to ensure immunity from Alien Crosstalk and other external interference and are specified up to frequencies of 500MHz.

- 10Base-T Ethernet
- 100Base-TX Fast Ethernet
- 1000Base-TX Gigabit Ethernet
- 10GBase-T 10 Gigabit Ethernet IEEE 802.3
- 155 Mbit ATM
- 1.2 Gbit ATM
- future Cat 6A and Class EA applications

Performance

With guaranteed performance to 500MHz, Nexans LANmark-6A cables provide guaranteed headroom and bandwidth over and above the Category 6A requirements of international, european and american cable standards, including of IEC 61156-5, EN 50173, EN 50288, TIA/EIA 568-B.2-1 Ad.10. When used in combination with Nexans LANmark-6A Evo connectors and LANmark-6A Ultim patch cords, the system supports the 10GBase-T applications as defined in IEEE 802.3an, and the full 100m four-connector links and channels meet Category 6A and Class EA requirements as defined in TIA/EIA568B.2 Addendum 10 and ISO/IEC11801 2002/A1:2008.

Installation

The LANmark-6A cables have the advantage of offering equal dimensions and flexibility as the equivalent LANmark-6 screened cables with the same ease of installation and termination.

Guarantees

Nexans LANmark-6A 10G cable is covered by a parts and labour warranty as



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Standards

International EN 50288-4-1; IEC 61156-5; IEEE 802.3an; ISO/IEC 11801:2002/A2:2008; ISO/IEC 24764; ISO/IEC TR24750; ISO11801:2002/A1:2008

National ANSI/TIA-568-C.2; TIA/EIA TSB-155



Operating temp. range
-20 .. 60 °C



static bending rad.
31 mm



operation bending rad.
62 mm



Ambient installation T°C range
0 .. 50 °C

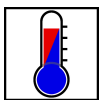


Flame retardant
IEC 60332-1

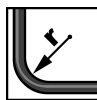
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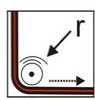
described in the Nexans Certified System Warranty. When installed in combination with other LANmark-6A 10G components, a 25 year channel warranty can be obtained.



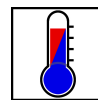
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Characteristics

| Construction characteristics | |
|--|--------------|
| Type of cable | F/UTP |
| Outer sheath | LSZH |
| Colour | Orange |
| Dimensional characteristics | |
| Diameter over insulation | 1.1 mm |
| Nominal outer diameter | 7.3 mm |
| Approximate weight | 52 kg/km |
| Conductor cross-section (AWG) | 23 |
| Electrical characteristics | |
| Mutual capacitance | 45 nF/km |
| Characteristic impedance | 100 Ohm |
| Max. transfer impedance at 30 MHz (Ohm/km) | 120 Ohm/km |
| Max. DC-resistance of the conductor at 20° C | 190 Ohm/km |
| Transmission characteristics | |
| Attenuation Crosstalk Ratio, 250MHz | 12.2 dB/100m |
| Skew | 45 ns/100m |
| Velocity of propagation | 67.0 % |
| Coupling attenuation at 30 MHz | 80 dB |
| Propagation delay, max. 100 MHz | 536 ns/100m |
| Usage characteristics | |
| Packaging | Reel |
| Length | 1000 m |
| Operating temperature, range | -20 .. 60 °C |
| Minimum static operating bending radius | 31 mm |
| Laying operation bending radius | 62 mm |
| Ambient installation temperature, range | 0 .. 50 °C |
| Flame retardant | IEC 60332-1 |
| Category | Cat. 6A |
| Range | LANmark-6A |

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Electrical Performance LANmark-6A 10G F1UTP cable

| Freq in MHz | Attn in dB | | NEXT in dB | | PSNEXT in dB | | ACR-F in dB | | PS ACR-F in dB | | PS ANEXT in dB | | PS AACR-F in dB | | RL in dB | |
|----------------|---------------|------|---------------|------|-----------------|------|----------------|------|-------------------|------|-------------------|------|--------------------|------|-------------|------|
| | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. |
| 1 | 2.1 | 2.1 | 74.3 | 79.3 | 72.3 | 77.3 | 67.8 | 92.8 | 64.8 | >60 | 67.0 | 90.0 | 67.0 | 87.9 | 20.0 | 26.0 |
| 4 | 3.8 | 3.8 | 65.3 | 70.3 | 63.3 | 68.3 | 55.8 | 80.8 | 52.8 | 57.2 | 67.0 | 90.0 | 66.2 | 75.9 | 23.0 | 29.0 |
| 10 | 5.9 | 5.9 | 59.3 | 64.3 | 57.3 | 62.3 | 47.8 | 72.8 | 44.8 | 49.3 | 67.0 | 87.0 | 58.2 | 67.9 | 25.0 | 31.0 |
| 16 | 7.5 | 7.5 | 56.2 | 61.2 | 54.2 | 59.2 | 43.7 | 68.7 | 40.7 | 45.2 | 67.0 | 85.0 | 54.1 | 63.8 | 25.0 | 31.0 |
| 20 | 8.4 | 8.4 | 54.8 | 59.8 | 52.8 | 57.8 | 41.8 | 66.8 | 38.8 | 43.2 | 67.0 | 84.0 | 52.2 | 61.9 | 25.0 | 31.0 |
| 31.25 | 10.5 | 10.5 | 51.9 | 56.9 | 49.9 | 54.9 | 37.9 | 62.9 | 34.9 | 39.4 | 67.0 | 82.1 | 48.3 | 58.0 | 23.6 | 29.6 |
| 62.5 | 15.0 | 15.0 | 47.4 | 52.4 | 45.4 | 50.4 | 31.9 | 56.9 | 28.9 | 33.3 | 65.6 | 79.0 | 42.3 | 52.0 | 21.5 | 27.5 |
| 100 | 19.1 | 19.1 | 44.3 | 49.3 | 42.3 | 47.3 | 27.8 | 52.8 | 24.8 | 29.3 | 62.5 | 77.0 | 38.2 | 47.9 | 20.1 | 26.1 |
| 155 | 24.1 | 24.1 | 41.4 | 46.4 | 39.4 | 44.4 | 24.0 | 49.0 | 21.0 | 25.5 | 59.6 | 74.1 | 34.4 | 44.1 | 18.8 | 24.8 |
| 200 | 27.6 | 27.6 | 39.8 | 44.8 | 37.8 | 42.8 | 21.8 | 46.8 | 18.8 | 23.2 | 58.0 | 72.5 | 32.2 | 41.9 | 18.0 | 24.0 |
| 250 | 31.1 | 31.1 | 38.3 | 43.3 | 36.3 | 41.3 | 19.8 | 44.8 | 16.8 | 21.3 | 56.5 | 71.0 | 30.2 | 39.9 | 17.3 | 23.3 |
| 300 | 34.3 | 34.3 | 37.1 | 42.1 | 35.1 | 40.1 | 18.3 | 43.3 | 15.3 | 19.7 | 55.3 | 69.8 | 28.7 | 38.4 | 16.8 | 22.8 |
| 500 | 45.3 | 45.3 | 33.8 | 38.8 | 31.8 | 36.8 | 13.8 | 38.8 | 10.8 | 15.3 | 52.0 | 66.5 | 24.2 | 33.9 | 15.2 | 21.2 |

all values are specified at 20°C