

LAN Systems (Nexans Cabling Solutions) Phone: +44 (0)1256 486640 ncs.uk@nexans.com

LANmark-6A Ultim Patch Cords

LANmark-6A Ultim Patch Cord Cat 6A 500MHz RJ45 LSZH Orange 3m

Nexans ref.: N101.22GFO

- High speed RJ45 patch cord to run 10GBase-T
- Frequency range up to 500MHz
- Complies to Cat 6A in as defined in TIA568B.2-10
- · Fully screened for Alien Crosstalk immunity
- Uses Nexans stranded U/FTP cable technology

Description

Application

LANmark-6A Ultim cords are developed to support the 10 Gigabit Ethernet application (IEEE 802.3an), offer superior performance up to 500MHz and exceed the Category 6A requirements. They provide improved data throughput and allow for the inclusion of Cross-Connects or Consolidation Points into the channel configuration. Ultim cords use stranded cable and as such provide maximum system flexibility at CC and CP. They will also maximise the lifetime and long term performance of the system by minimising the risk of wear & tear damage which can be caused by using non-matched cords. LANmark-6A Ultim cords can also be used for accurate field testing of Cat 6A cabling channels due to their mechanical stability.



The LANmark-6A Ultim cords fully comply and exceed the requirements of EIA/TIA-568-B.2-10 and enable to achieve high performing Cat 6A channels. Used with other LANmark-6A components, very short Cat 6A link and channel configurations with up to 3 connection points within 10 meters can be supported.

Guarantees

When installed in combination with other LANmark-6A components, a 25 years channel warranty can be obtained, covering full 10GBase-T support and full Cat $6A/Class\ EA\ compliance$.

Installation

- The cords are by design fully Alien Crosstalk compliant as in IEEE 802.3an so no special installation rules need to be taken into account for ANEXT and AFEXT compliance.
- 1, 2, 3 and 5m are standard lengths; other lengths are available on demand.
- 10 m is standard length for single-end patchcord; other lengths are available on demand.
- Orange and Dark Grey are standard colors; other colors are available on demand.
- Dark Grey is the standard boot color; others boot colors are available on demand.
- Rugged construction: external strain relief.



LANmark-6A

Standards

International IEEE 802.3an; ISO/ IEC 11801:2002/Amd 1:2008/ Cor 1:2008; ISO/IEC 24764; ISO/ IEC TR24750

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





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Characteristics

| Construction characteristics | |
|-------------------------------|------------------|
| Colour | Orange |
| Screen | Yes |
| Outer sheath | LSZH-FR |
| Dimensional characteristics | |
| Nominal outer diameter | 7.0 mm |
| Electrical characteristics | |
| Characteristic impedance | 100 Ohm |
| Usage characteristics | |
| Range | LANmark-6A |
| Length | 3 m |
| Mechanical durability/matings | 750 |
| Fire retardant | IEC 60332 Part 1 |
| Component function | Patchcord |
| Category | Cat. 6A |
| Packaging | Box of 50 items |





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Electrical Performance LANmark-6A 4 Connector Channel Part 1

"All values are based on Worst Case 4 Connector Channel configurations according ISO11801:2008 AM1 Minimal and maximum values represent guaranteed channel performance"

| | At | ttn | NEXT | | | | PSNEXT | ACR-F | | |
|--------|-------|------|-------|------|------|-------|--------|-------|-------|------|
| Freq | in dB | | in dB | | | in dB | | | in dB | |
| in MHz | Max | Тур | Std | Min | Тур | Std | Min | Тур | Std | Тур |
| 1 | <4 | 4.0 | 65.0 | 67.0 | 85.0 | 62.0 | 64.0 | 74.8 | 63.3 | 69.9 |
| 4 | 4.1 | 4.1 | 63.0 | 65.0 | 72.9 | 60.5 | 62.5 | 65.0 | 51.2 | 57.9 |
| 10 | 6.4 | 6.3 | 56.6 | 58.6 | 65.0 | 54.0 | 56.0 | 58.5 | 43.3 | 49.9 |
| 16 | 8.1 | 8.0 | 53.2 | 55.2 | 60.9 | 50.6 | 52.6 | 55.1 | 39.2 | 45.9 |
| 20 | 9.1 | 9.0 | 51.6 | 53.6 | 59.0 | 49.0 | 51.0 | 53.5 | 37.2 | 43.9 |
| 31.25 | 11.4 | 11.2 | 48.4 | 50.4 | 55.1 | 45.7 | 47.7 | 50.2 | 33.4 | 40.0 |
| 62.5 | 16.3 | 15.9 | 43.4 | 45.4 | 49.1 | 40.6 | 42.6 | 45.1 | 27.3 | 34.0 |
| 100 | 20.8 | 20.2 | 39.9 | 41.9 | 45.0 | 37.1 | 39.1 | 41.6 | 23.3 | 29.9 |
| 155 | 26.2 | 25.4 | 36.7 | 38.7 | 41.2 | 33.8 | 35.8 | 38.3 | 19.5 | 26.1 |
| 200 | 30.0 | 28.9 | 34.8 | 36.8 | 39.0 | 31.9 | 33.9 | 36.4 | 17.2 | 23.9 |
| 250 | 33.8 | 32.5 | 33.1 | 35.1 | 37.0 | 30.2 | 32.2 | 34.7 | 15.3 | 22.0 |
| 300 | 37.3 | 35.7 | 31.7 | 33.7 | 35.4 | 28.8 | 30.8 | 33.3 | 13.7 | 20.4 |
| 500 | 49.3 | 46.7 | 27.9 | 29.9 | 31.0 | 24.8 | 26.8 | 24.9 | 9.3 | 16.0 |

^{*}Standard values based on ISO11801:2002/A1:2008 ClassEA





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Electrical Performance LANmark-6A 4 Connector Channel Part 2

All values are based on Worst Case 4 Connector Channel configurations according ISO11801:2008 AM1 Minimal and maximum values represent guaranteed channel performance

| | PS ACR-F PS ANEXT | | | F | S AACR- | F | RL | | | | | |
|--------|-------------------|------|------|-------|---------|------|-------|------|------|-------|------|--|
| Freq | in | dB | | in dB | in dB | | in dB | | | in dB | | |
| in MHz | Std | Тур | Std | Min | Тур | Std | Min | Тур | Std | Min | Тур | |
| 1 | 60.3 | 66.9 | 80.0 | 90.0 | 92.0 | 77.0 | 92.0 | 94.0 | 19.0 | 21.0 | 21.0 | |
| 4 | 48.2 | 54.9 | 74.0 | 89.0 | 91.0 | 65.0 | 80.0 | 82.0 | 19.0 | 21.0 | 32.0 | |
| 10 | 40.3 | 46.9 | 70.0 | 85.0 | 87.0 | 57.0 | 72.0 | 74.0 | 19.0 | 21.0 | 28.0 | |
| 16 | 36.2 | 42.9 | 68.0 | 83.0 | 85.0 | 52.9 | 67.9 | 69.9 | 18.0 | 20.0 | 26.0 | |
| 20 | 34.2 | 40.9 | 67.0 | 82.0 | 84.0 | 51.0 | 66.0 | 68.0 | 17.5 | 19.5 | 25.0 | |
| 31.25 | 30.4 | 37.0 | 65.1 | 80.1 | 82.1 | 47.1 | 62.1 | 64.1 | 16.5 | 18.5 | 23.1 | |
| 62.5 | 24.3 | 31.0 | 62.0 | 77.0 | 79.0 | 41.1 | 56.1 | 58.1 | 14.0 | 16.0 | 20.0 | |
| 100 | 20.3 | 26.9 | 60.0 | 75.0 | 77.0 | 37.0 | 52.0 | 54.0 | 12.0 | 14.0 | 18.0 | |
| 155 | 16.5 | 23.1 | 57.1 | 72.1 | 74.1 | 33.2 | 48.2 | 50.2 | 10.1 | 12.1 | 16.1 | |
| 200 | 14.2 | 20.9 | 55.5 | 70.5 | 72.5 | 31.0 | 46.0 | 48.0 | 9.0 | 11.0 | 15.0 | |
| 250 | 12.3 | 19.0 | 54.0 | 69.0 | 71.0 | 29.0 | 44.0 | 46.0 | 8.0 | 10.0 | 14.0 | |
| 300 | 10.7 | 17.4 | 52.8 | 67.8 | 69.8 | 27.5 | 42.5 | 44.5 | 8.0 | 10.0 | 13.2 | |
| 500 | 6.3 | 13.0 | 49.5 | 64.5 | 66.5 | 23.0 | 38.0 | 40.0 | 8.0 | 10.0 | 11.0 | |

^{*}Standard values based on ISO11801:2002/A1:2008 ClassEA

