

LANmark-7A Cable

LANmark-7A 1600 S/FTP AWG22 Cat 7A 1600MHz LSZH Dca s2 d1 a1
Orange 1000m reel

Nexans reference: [N100.381-OD](#)

- Exceeds Category 7A in terms of ACR and Frequency Range
- Suitable for channels with capacity above 25Gbps
- AWG22 Wire Size
- Positive Attenuation to Crosstalk Ratio up to 1600MHz
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with Cat 7A connectivity through special foil construction

POPIS

Description

LANmark-7A 1600 is a 4 pair S/FTP cable with individual pair foils and an overall braid offering superior performance up to 1600MHz. It is fully compliant with the new Category 7A standard and offers even large headroom above the Cat 7A requirement. Due to this excellent electrical performance and positive ACR up to 1600MHz the cable is suited for transmission channels with a capacity of more than 25Gbps.

Application

LANmark-7A is the highest performing standardised cabling solution in the enterprise market and will support all current data applications and all planned applications using cabling up to Class FA.

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-T
- 25GBase-T
- CaTV up to 862MHz
- Cable sharing applications including CATV
- Any future Class FA application

Installation

Ease of Installation is one of the main features of the LANmark-7A cable. Extra attention has been paid to ensure that the screen coverage is maintained and foils do not open during installation. The cable has been specially designed to be used in conjunction with the LANmark-7A GG45 12C connector.

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.



LANmark-7A

STANDART

Mezinárodní EN 50173;
EN 50288-4-1; ISO/IEC 11801;
ISO/IEC 61156-5



Bezolovnatý
Yes



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



Operating temp.
-20 .. 60 °C



Samozhášivost
IEC 60332-1



Hustota dýmu
IEC 61034-2



Gases corrosivity
IEC 60754-1, IEC 60754-2

Všechny konstrukční výkresy, návrhy, specifikace, plány a detaily týkající se váhy, velikosti, rozměrů, které jsou obsažené v technické nebo komerční dokumentaci Nexans mají pouze oznamovací charakter a nemají charakter Nexans závazných oficiálních dokumentů.

Vytvořené 19.9.17 pro Hana Malá www.nexans.cz Strana 1 / 3

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VLASTNOSTI

Konstrukční charakteristika

| | |
|---------------|---|
| Type of cable | S/FTP |
| Screen | Aluminium foil + tinned copper braiding |
| Drain wire | No |
| Bezolovnatý | Yes |
| Outer sheath | LSZH |
| Sheath colour | Orange |

Rozměrová charakteristika

| | |
|-------------------------------|----------|
| Number of pairs | 4 |
| Diameter over insulation | 1,58 mm |
| Nominal outer diameter | 8,6 mm |
| Conductor cross-section (AWG) | 22 |
| Approximate weight | 72 kg/km |

Electrical characteristics

| | |
|---|-----------|
| Characteristic impedance | 100 Ohm |
| Max. transfer impedance at 30 MHz (Ohm/km) | 50 Ohm/km |
| Mutual capacitance | 45 nF/km |
| Max. DC resistance of the conductor at 20°C | 85 Ohm/km |

Transmission characteristics

| | |
|---------------------------------------|-------------|
| Skew | 25 ns/100m |
| Nominal Velocity of Propagation (NVP) | 76 % |
| Propagation delay, max. 100 MHz | 536 ns/100m |
| Coupling attenuation at 30 MHz | >85 dB |

Mechanical characteristics

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

Charakteristika použití

| | |
|---|--------------------------|
| Category | Cat. 7A |
| Range | LANmark-7A |
| Ambient installation temperature, range | 0 .. 50 °C |
| Operating temperature, range | -20 .. 60 °C |
| Minimum Bend Radius - During Installation (under Tension) | 69 mm |
| Minimum Bend Radius - Installed | 34 mm |
| Samozhášivost | IEC 60332-1 |
| Hustota dýmu | IEC 61034-2 |
| Gases corrosivity | IEC 60754-1, IEC 60754-2 |
| Length | 1000 m |
| Packaging | Reel |

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ELECTRICAL PERFORMANCE LANMARK-7A 1600 CABLE

Minimum and Typical Electrical Performance LANmark-7A 1600 Cable

| Frequency (in MHz) | Attenuation (dB/100m) | | NEXT (in dB) | | ACR (in dB) | | PS-ANEXT (in dB) | | ACR-F (in dB) | | TCL (in dB) | | Return Loss (in dB) | |
|-----------------------|--------------------------|---------|-----------------|-------|----------------|-------|---------------------|------|------------------|------|----------------|------|------------------------|------|
| | Max. | Typical | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. |
| 1.00 | 2.1 | 1.9 | 75.0 | 105.0 | 72.9 | 103.1 | 80.0 | 87.5 | 88.0 | 83.0 | 40.0 | 43.0 | 20.0 | 30.0 |
| 4.00 | 3.7 | 3.5 | 75.0 | 105.0 | 71.3 | 101.5 | 80.0 | 87.5 | 88.0 | 83.0 | 34.0 | 37.0 | 23.0 | 33.0 |
| 10.00 | 5.8 | 5.4 | 75.0 | 105.0 | 69.2 | 99.6 | 80.0 | 87.5 | 88.0 | 83.0 | 30.0 | 33.0 | 25.0 | 34.0 |
| 16.00 | 7.3 | 6.8 | 75.0 | 105.0 | 67.7 | 98.2 | 80.0 | 87.5 | 88.0 | 83.0 | 28.0 | 31.0 | 25.0 | 34.0 |
| 20.00 | 8.2 | 7.6 | 75.0 | 105.0 | 66.8 | 97.4 | 80.0 | 87.5 | 88.0 | 83.0 | 27.0 | 30.0 | 25.0 | 34.0 |
| 31.25 | 10.3 | 9.5 | 75.0 | 105.0 | 64.7 | 95.5 | 80.0 | 87.5 | 88.0 | 83.0 | 25.1 | 28.1 | 23.7 | 32.7 |
| 62.50 | 14.6 | 13.4 | 75.0 | 105.0 | 60.4 | 91.6 | 80.0 | 87.5 | 88.0 | 83.0 | 22.1 | 25.1 | 21.6 | 30.6 |
| 100.00 | 18.5 | 17.0 | 75.0 | 102.4 | 56.5 | 85.4 | 80.0 | 87.5 | 85.3 | 80.3 | 20.0 | 23.0 | 20.1 | 29.1 |
| 155.00 | 23.2 | 21.3 | 72.5 | 97.6 | 49.3 | 76.3 | 80.0 | 87.5 | 80.5 | 75.5 | 18.1 | 21.1 | 18.8 | 27.8 |
| 300.00 | 32.7 | 29.9 | 68.2 | 90.5 | 35.6 | 60.6 | 80.0 | 87.5 | 73.4 | 68.4 | 15.2 | 18.2 | 17.3 | 26.3 |
| 600.00 | 47.1 | 42.7 | 63.7 | 82.9 | 16.6 | 40.3 | 75.8 | 83.3 | 65.8 | 60.8 | 12.2 | 15.2 | 17.3 | 26.3 |
| 800.00 | 54.9 | 49.6 | 61.9 | 79.8 | 6.9 | 30.2 | 74.0 | 81.5 | 62.7 | 57.7 | 11.0 | 14.0 | 16.1 | 23.8 |
| 1000.00 | 61.9 | 55.7 | 60.4 | 77.4 | -1.5 | 21.7 | 72.5 | 80.0 | 60.3 | 55.3 | 10.0 | 13.0 | 15.1 | 21.9 |
| 1200.00 | 68.4 | 61.3 | 59.2 | 75.4 | -9.1 | 14.1 | 71.3 | 78.8 | 58.3 | 53.3 | 9.2 | 12.2 | 14.3 | 20.3 |
| 1500.00 | 77.2 | 69.0 | 57.8 | 73.0 | -19.5 | 4.0 | 69.9 | 77.4 | 55.9 | 50.9 | 8.2 | 11.2 | 13.3 | 18.3 |
| 1600.00 | 80.0 | 71.4 | 57.3 | 72.3 | -22.7 | 0.9 | 69.4 | 76.9 | 55.2 | 50.2 | 8.0 | 11.0 | 13.0 | 17.8 |

Maximum/Minimum requirements according to IEC61156-9 NP Draft 2013