

LANmark-7A Cable

LANmark-7A S/FTP Cat 7A 1000MHz 23AWG LSZH Orange 1000m Reel

Nexans ref.: N100.371

- Exceeds Category 7A in terms of ACR and Frequency Range
- Suitable for channels with capacity above 40GBps
- Superior Performance with positive ACR over the full frequency range
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with Cat 7 connectivity through special foil construction

Description

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LANmark-7A is a 4 pair S/FTP cable with individual pair foils and an overall braid offering superior performance up to 1000MHz. 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 1000 MHz the cable is suited for transmission channels with a capacity of >40Gbps.

Application

LANmark-7A is the highest performing standardised cabling solution in the market and will support all current data applications and all planned applications using cabling up to Class FA (see discussions at IEEE about 40/100Gbps).

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-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.



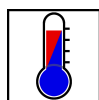
LANmark-7A

Standards

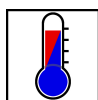
International EN 50173;
EN 50288-4-1; ISO/IEC 11801; ISO/
IEC 61156-5



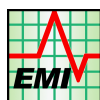
Lead free
Yes



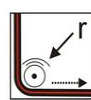
Ambient installation T°
C range
-5 .. 70 °C



Operating temp.
range
-20 .. 60 °C



Electro magnetic
interference resistance
Yes



operation
bending rad.
62 mm



static bending
rad.
31 mm



Flame
retardant
IEC 60332-1

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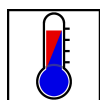
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Characteristics

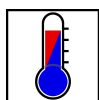
| Construction characteristics | |
|---------------------------------------------|---------------------------------|
| Type of cable | S/FTP |
| Screen | Aluminium tape and copper braid |
| Drain wire | No |
| Sheath colour | Orange |
| Lead free | Yes |
| Outer sheath | LSZH |
| Dimensional characteristics | |
| Diameter over insulation | 1.45 mm |
| Number of pairs | 4 |
| Nominal outer diameter | 7.7 mm |
| Approximate weight | 61 kg/km |
| Conductor cross-section (AWG) | 23 |
| Electrical characteristics | |
| Characteristic impedance | 100 Ohm |
| Max. transfer impedance at 30 MHz (Ohm/km) | 50 Ohm/km |
| Mutual capacitance | 56 nF/km |
| Max. DC resistance of the conductor at 20°C | 80 Ohm/km |
| Transmission characteristics | |
| Nominal Velocity of Propagation (NVP) | 82 % |
| Skew | 25 ns/100m |
| Propagation delay, max. 100 MHz | 536 ns/100m |
| Mechanical characteristics | |
| Maximum pulling force by laying | 0.21 kN |
| Usage characteristics | |
| Category | Cat. 7A |
| Ambient installation temperature, range | -5 .. 70 °C |
| Operating temperature, range | -20 .. 60 °C |
| Electro magnetic interference resistance | Yes |
| Laying operation bending radius | 62 mm |
| Minimum static operating bending radius | 31 mm |
| Flame retardant | IEC 60332-1 |
| Fire load | 700 MJ/km |
| Range | LANmark-7A |
| Length | 1000 m |
| Packaging | Reel |
| Field of application | Fixed installations |



Lead free
Yes



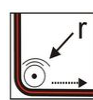
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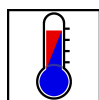
Electrical Performance LANmark-7A Cable

Electrical Performance LANmark-7A 1000MHz

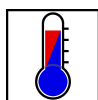
| Frequency (in MHz) | Attenuation (dB/100m) | | NEXT (in dB) | | ACR (in dB) | | PS-NEXT (in dB) | | ACR-F (in dB) | | PS-ACR-F (in dB) | | Return Loss (in dB) | |
|-----------------------|--------------------------|---------|-----------------|--------|----------------|-------|--------------------|-------|------------------|-------|---------------------|-------|------------------------|-------|
| | Max. | Typical | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. |
| 1.00 | 4.0 | 1.7 | 80.00 | 100.00 | 76.00 | 98.30 | 77.00 | 98.0 | 75.00 | 98.0 | 75.00 | 96.00 | 20 | 20.00 |
| 4.00 | 4.0 | 3.4 | 80.00 | 100.00 | 76.00 | 96.60 | 77.00 | 98.0 | 75.00 | 98.0 | 75.00 | 96.00 | 23 | 26.00 |
| 10.00 | 5.8 | 5.3 | 80.00 | 100.00 | 74.18 | 94.70 | 77.00 | 98.0 | 75.00 | 98.0 | 72.30 | 96.00 | 25 | 28.00 |
| 16.00 | 7.3 | 6.6 | 80.00 | 100.00 | 72.66 | 93.40 | 77.00 | 98.0 | 71.22 | 96.0 | 68.22 | 94.00 | 25 | 28.00 |
| 20.00 | 8.2 | 7.4 | 80.00 | 100.00 | 71.79 | 92.60 | 77.00 | 98.0 | 69.28 | 94.0 | 66.28 | 92.00 | 25 | 28.00 |
| 31.25 | 10.3 | 9.3 | 80.00 | 100.00 | 69.74 | 90.70 | 77.00 | 98.0 | 65.40 | 90.0 | 62.40 | 88.00 | 23.6 | 26.00 |
| 62.50 | 14.6 | 13.5 | 80.00 | 100.00 | 65.43 | 86.50 | 77.00 | 98.0 | 59.38 | 84.0 | 56.38 | 82.00 | 21.5 | 24.00 |
| 100.00 | 18.5 | 17.1 | 78.40 | 100.00 | 59.88 | 82.90 | 75.40 | 98.0 | 55.30 | 75.0 | 52.30 | 73.00 | 20.1 | 23.00 |
| 155.00 | 23.2 | 25.0 | 75.55 | 100.00 | 52.34 | 75.00 | 72.55 | 98.0 | 51.49 | 70.0 | 48.49 | 68.00 | 18.8 | 21.00 |
| 300.00 | 32.7 | 31.0 | 71.24 | 96.00 | 38.55 | 65.00 | 68.24 | 92.0 | 45.76 | 66.0 | 42.76 | 64.00 | 17.3 | 20.00 |
| 600.00 | 47.1 | 44.0 | 66.73 | 94.00 | 19.63 | 50.00 | 63.73 | 88.0 | 39.74 | 54.0 | 36.74 | 52.00 | 17.3 | 20.00 |
| 800.00 | 54.9 | 51.3 | 64.85 | 92.00 | 9.93 | 40.70 | 61.85 | 78.00 | 37.24 | 50.00 | 34.24 | 48.00 | 16 | 19.00 |
| 1000.00 | 61.9 | 57.5 | 63.40 | 91.00 | 1.47 | 33.50 | 60.40 | 78.00 | 35.30 | 38.00 | 32.30 | 34.00 | 15.1 | 18.00 |



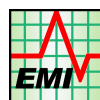
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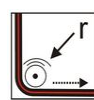
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