

LANmark-7A Cable

LANMARK-7A 1250 S/FTP DUAL AWG23 CAT 7A 1250MHZ LSZH DCA S2 D1 A1 ORANGE 500M REEL

Aginode Ref: N100.373-OD

- High Quality Data Cables for simultaneous use with POE+ and POE++
- All Cable exceed Category 7A in terms of ACR and Frequency Range
- Superior Performance with positive ACR over the full frequency range
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with GG45 connectivity through special foil construction
- Dual version (2 x 4 prs) permits two cables to be installed in one go

Note: product picture showing 4pr version

p>Description

LANmark-7A is a 4 pair S/FTP cable with individual pair foils and an overall braid offering superior performance up to at least 1250MHz. It is fully compliant with the latest Category 7A standard and offers even large headroom above the Cat 7A requirement. Due to this excellent electrical performance and positive ACR up to at least 1250MHz the cable supports the applications like 10GBASE-T as well as 25GBASE-T

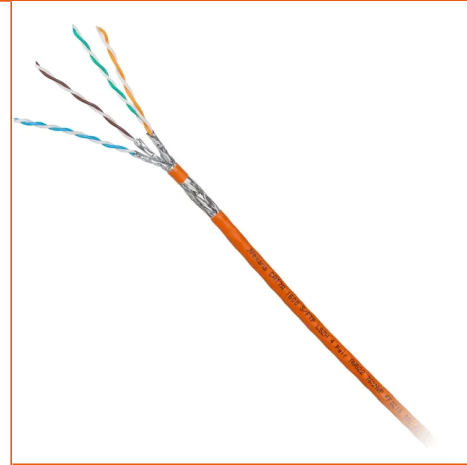
Application

LANmark-7A is the highest performing standardised cabling solution in the market and will support all current Ethernet applications up to 25G and all planned applications using cabling up to Class FA.

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-T
- 25GBase-T
- POE, POE+, POE++ (Draft)
- Cable sharing applications including CATV up to 862MHz
- Any future Class FA application

Installation

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STANDARDS

EN 50173
EN 50288-4-1
IEEE 802.3bt (PoE++)
ISO/IEC 11801
ISO/IEC 61156-5

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.

Electrical Performance LANmark-7A 1250 Cable

| Frequency (in MHz) | Attenuation (in dB/100m) | | NEXT pp (in dB) | | ACR-F (in dB) | | RL (in dB) | | Coupling Att. (in dB) | | PSANEXT (in dB) | | PSAFEXT (in dB) | |
|-----------------------|-----------------------------|---------|--------------------|---------|------------------|---------|---------------|---------|--------------------------|---------|--------------------|---------|--------------------|---------|
| | Std Max | Typical | Std Min | Typical | Std Min | Typical | Std Min | Typical | Std Min | Typical | Std Min | Typical | Std Min | Typical |
| 1 | 4.0 | 4.0 | 65.0 | 104.8 | 65.0 | 70.0 | 19.0 | 38.0 | 80.0 | 106.0 | 67.0 | 92.4 | 80.0 | 83.0 |
| 4 | 4.1 | 4.0 | 65.0 | 94.6 | 65.0 | 70.0 | 19.0 | 32.0 | 68.0 | 94.0 | 67.0 | 92.1 | 79.0 | 82.8 |
| 10 | 8.4 | 9.3 | 65.0 | 87.8 | 65.0 | 70.0 | 19.0 | 28.0 | 60.0 | 86.0 | 67.0 | 91.0 | 75.9 | 78.9 |
| 16 | 8.0 | 7.9 | 65.0 | 84.2 | 63.3 | 68.3 | 18.0 | 26.0 | 55.9 | 81.9 | 67.0 | 90.0 | 73.9 | 76.5 |
| 20 | 9.0 | 8.9 | 65.0 | 82.5 | 61.4 | 66.4 | 17.5 | 25.0 | 54.0 | 80.0 | 67.0 | 89.4 | 72.9 | 75.9 |
| 31.25 | 11.2 | 11.1 | 65.0 | 78.1 | 57.5 | 62.5 | 16.5 | 23.1 | 50.1 | 76.1 | 67.0 | 88.0 | 71.0 | 74.0 |
| 62.5 | 15.9 | 15.6 | 65.0 | 73.7 | 51.5 | 56.5 | 14.0 | 20.0 | 44.1 | 70.1 | 67.0 | 85.3 | 68.0 | 71.0 |
| 100 | 20.3 | 19.7 | 65.0 | 70.0 | 47.4 | 52.4 | 12.0 | 18.0 | 40.0 | 66.0 | 67.0 | 83.1 | 65.9 | 68.9 |
| 155 | 25.4 | 24.5 | 63.0 | 66.0 | 43.6 | 48.6 | 10.3 | 16.1 | 36.2 | 62.2 | 67.0 | 80.8 | 63.8 | 66.8 |
| 200 | 28.9 | 27.9 | 60.9 | 64.6 | 41.4 | 46.4 | 9.0 | 15.0 | 34.0 | 60.0 | 67.0 | 79.4 | 62.8 | 65.8 |
| 250 | 32.5 | 31.2 | 59.1 | 62.8 | 39.4 | 44.4 | 8.0 | 14.0 | 32.0 | 58.0 | 67.0 | 78.1 | 61.8 | 64.8 |
| 300 | 35.7 | 34.1 | 57.7 | 61.3 | 37.8 | 42.8 | 8.0 | 13.2 | 30.5 | 56.5 | 67.0 | 77.1 | 60.8 | 63.8 |
| 500 | 46.7 | 44.1 | 53.6 | 57.2 | 33.4 | 38.4 | 8.0 | 11.0 | 26.0 | 52.0 | 64.5 | 75.0 | 58.6 | 61.6 |
| 600 | 51.4 | 48.3 | 52.1 | 55.8 | 31.8 | 36.8 | 8.0 | 10.2 | 24.4 | 50.4 | 63.3 | 75.0 | 57.8 | 60.8 |
| 700 | 55.8 | 52.1 | 50.8 | 54.5 | 30.5 | 35.5 | 7.5 | 9.5 | 23.1 | 49.1 | 62.3 | 75.0 | 57.1 | 60.1 |
| 800 | 59.9 | 55.7 | 49.7 | 53.5 | 29.3 | 34.3 | 7.0 | 9.0 | 21.9 | 47.9 | 61.5 | 75.0 | 56.4 | 59.4 |
| 900 | 63.8 | 59.1 | 48.8 | 52.5 | 28.3 | 33.3 | 6.5 | 8.5 | 20.9 | 46.9 | 60.7 | 74.0 | 55.9 | 58.9 |
| 1000 | 67.6 | 62.3 | 47.9 | 51.6 | 27.4 | 32.4 | 6.0 | 8.0 | 20.0 | 46.0 | 60.0 | 73.0 | 55.4 | 58.4 |
| 1250 | | 70.0 | | 42.0 | | 25.0 | | 8.0 | | 40.0 | | 70.0 | | 50.0 |

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LANmark-7A 1250 S/FTP Dual AWG23 Cat 7A 1250MHz LSZH

Dca s2 d1 a1 Orange 500m reel

Characteristics

Construction characteristics

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

Dimensional characteristics

| | |
|-------------------------------------|-----------|
| Approximate weight | 122 kg/km |
| Number of pairs | 8 |
| Conductor cross-section (AWG/KCMIL) | 23 |
| Diameter over insulation | 1.45 mm |
| Nominal outer diameter (mm) | 7.7 mm |

Electrical characteristics

| | |
|---|-----------|
| Mutual capacitance | 45 nF/km |
| Characteristic impedance | 100 Ohm |
| Max. transfer impedance at 30 MHz (Ohm/km) | 50 Ohm/km |
| Max. DC resistance of the conductor at 20°C | 80 Ohm/km |

Mechanical characteristics

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

Transmission characteristics

| | |
|---------------------------------------|-------------|
| Skew | 25 ns/100m |
| Nominal Velocity of Propagation (NVP) | 82 % |
| Coupling attenuation at 30 MHz | >85 dB |
| Propagation delay, max. 100 MHz | 536 ns/100m |

Usage characteristics

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| | |
|---|--------------------------|
| Range | LANmark-7A |
| Gases corrosivity | IEC 60754-1; IEC 60754-2 |
| Length | 500 m |
| Operating temperature, range | -20...60 °C |
| Category | Cat. 7A |
| Flame retardant | IEC 60332-1 |
| Smoke density | IEC 61034-2 |
| Packaging | Reel |
| Ambient installation temperature, range | 0...50 °C |
| Minimum Bend Radius - During Installation (under Tension) | 62 mm |
| Minimum Bend Radius - Installed | 31 mm |

ドキュメンテーション

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パフォーマンス宣言

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