

LANmark-6A Cable

LANmark-6A F/FTP Cat 6A 500MHz LSZH 500m reel

Nexans ref.: N100.694G

- Fully Screened Cable for 10GBase-T application
- Complies fully with Category 6A standard and Class EA requirements
- Small diameter
- Guaranteed performance up to 500MHz
- Fully screened for alien crosstalk immunity

Description

Application

LANmark-6A cable is the ideal solution for a 10G 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.

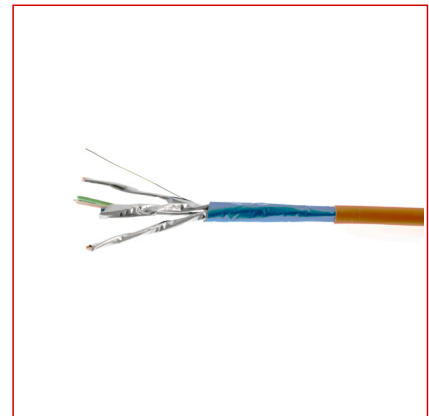
Installation

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.

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.

Guarantees

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

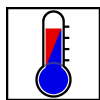


LANmark-6A

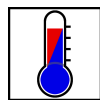
Standards

International EN 50288-4-1;
 IEC 61156-5; IEEE 802.3an; ISO/
 IEC 11801:2002/Amd 1:2008/
 Cor 1:2008; ISO/IEC 24764; ISO/
 IEC TR24750; ISO/IEC 11801:2002/
 Amd 2:2010/Cor 1:2010

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



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



Operating temp. range
 -20 .. 60 °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.

Characteristics

Construction characteristics	
Type of cable	F/FTP
Outer sheath	LSZH
Colour	Orange
Dimensional characteristics	
Diameter over insulation	1.42 mm
Nominal outer diameter	7.6 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	37.2 dB/100m
Skew	30 ns/100m
Coupling attenuation at 30 MHz	80 dB
Nominal Velocity of Propagation (NVP)	82.0 %
Propagation delay, max. 100 MHz	536 ns/100m
Mechanical characteristics	
Maximum operating pulling force	100 N
Usage characteristics	
Category	Cat. 6A
Range	LANmark-6A
Ambient installation temperature, range	0 .. 50 °C
Operating temperature, range	-20 .. 60 °C
Minimum Bend Radius - During Installation (under Tension)	61.0 mm
Minimum Bend Radius - Installed	30.0 mm
Flame retardant	IEC 60332-1
Length	500 m
Packaging	Reel



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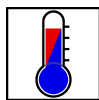
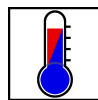
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Electrical Performance LANmark-6A 10G F/FTP cable

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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	104.3	72.3	102.3	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	95.3	63.3	93.3	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	89.3	57.3	87.3	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	86.2	54.2	84.2	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	84.8	52.8	82.8	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	81.9	49.9	79.9	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	77.4	45.4	75.4	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	74.3	42.3	72.3	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	71.4	39.4	69.4	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	69.8	37.8	67.8	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	68.3	36.3	66.3	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	67.1	35.1	65.1	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	63.8	31.8	61.8	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


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

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 -20 .. 60 °C

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