LANmark-6A Cable

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

Nexans ref.: N100.694G

- Ideal cable for 10GBase-T application
- Full compliance to latest standards for Category 6A and Class EA
- Guaranteed performance up to 500MHz
- Individual pair shielding offering Alien Crosstalk immunity

Description

LANmark-6A

Application

LANmark-6A cables are the ideal solution for a 10G Ethernet network. The range has been designed specifically to support the higher frequencies required for 10 Gigabit Ethernet, while maintaining full backwards compatibility with today's needs. All LANmark-6A cables are shielded, in order to ensure immunity to Alien Crosstalk and other external interferences.

- 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 exceed the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

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 meets or exceeds the link and channel requirements for Category 6A and Class EA as defined in TIA/EIA 568-C.2 and ISO/IEC 11801.

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.

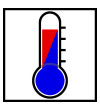
Guarantees

Traceability codes on both cable and packaging ensure quality validation of the installed cable.

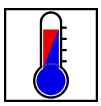
Standards

International EN 50173-1; EN 50288-4-1; IEC 61156-5; ISO/IEC 11801; ISO/IEC 24764

National ANSI/TIA-568-C.2



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



Operating temp. range
-20 .. 60 °C

Flame retardant
IEC 60332-1

Smoke density
IEC 61034

Gases toxicity
IEC 60754

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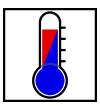
Installations with LANmark-6A cable and connectivity are qualified for a 25 year full system warranty, which includes Parts, Channel Performance, Application Support and Labour, as described in the Nexans Certified System Warranty.

Characteristics

Construction characteristics	
Type of cable	F/FTP
Outer sheath	LSZH
Colour	Orange
Dimensional characteristics	
Diameter over insulation	1.36 mm
Nominal outer diameter	7.0 mm
Approximate weight	49 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	190.00 Ohm/km
Transmission characteristics	
Attenuation Crosstalk Ratio, 250MHz	37.2 dB/100m
Skew	30 ns/100m
Nominal Velocity of Propagation (NVP)	82 %
Propagation delay, max. 100 MHz	536 ns/100m
Coupling attenuation at 30 MHz	80 dB
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)	56 mm
Minimum Bend Radius - Installed	28 mm
Flame retardant	IEC 60332-1
Smoke density	IEC 61034
Gases toxicity	IEC 60754
Length	500 m
Packaging	Reel



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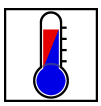

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Electrical Performance LANmark-6A F/FTP cable

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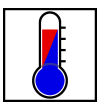
	Attn		NEXT		PSNEXT		ACR-F		PS ACR-F		PS ANEXT		PS AACR-F		RL	
Freq	in dB		in dB		in dB		in dB		in dB		in dB		in dB		in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	104.3	72.3	102.3	67.8	92.8	64.8	89.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	95.3	63.3	93.3	55.8	80.8	52.8	77.8	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	69.8	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	65.7	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	63.8	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	59.9	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	53.9	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	49.8	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	46.0	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	43.8	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	41.8	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	40.3	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	35.8	52.0	66.5	24.2	33.9	15.2	21.2

all values are specified at 20°C



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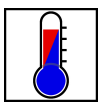

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