

## LANmark-6A Cable

LANmark-6A F/FTP AWG23 Cat 6A LSZH Orange 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

#### 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.

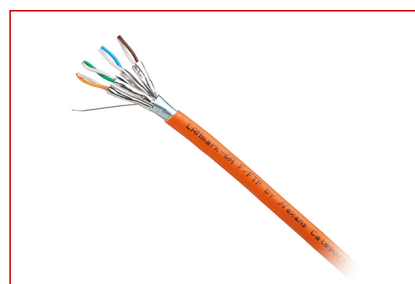
#### Installation

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.



## LANmark-6A

#### Standards

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

**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 corrosivity  
 IEC 60754-1, IEC 60754-2

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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.

				
Ambient installation T°C range 0 .. 50 °C	Operating temp. range -20 .. 60 °C	Flame retardant IEC 60332-1	Smoke density IEC 61034	Gases corrosivity IEC 60754-1, IEC 60754-2

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### Characteristics

<b>Construction characteristics</b>	
Type of cable	F/FTP
Outer sheath	LSZH
Colour	Orange
<b>Dimensional characteristics</b>	
Diameter over insulation	1.36 mm
Nominal outer diameter	7.0 mm
Approximate weight	49 kg/km
Conductor cross-section (AWG)	23
<b>Electrical characteristics</b>	
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
<b>Transmission characteristics</b>	
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	>85
<b>Mechanical characteristics</b>	
Maximum operating pulling force	100 N
<b>Usage characteristics</b>	
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 corrosivity	IEC 60754-1, IEC 60754-2
Length	500 m
Packaging	Reel

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### Electrical Performance LANmark-6A F/FTP cable

Electrical Performance LANmark-6A F/FTP cable

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.
<b>1</b>	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
<b>4</b>	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
<b>10</b>	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
<b>16</b>	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
<b>20</b>	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
<b>31.25</b>	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
<b>62.5</b>	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
<b>100</b>	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
<b>155</b>	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
<b>200</b>	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
<b>250</b>	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
<b>300</b>	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
<b>500</b>	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