

# LANmark-6A Cable

LANmark-6A F/FTP Dual AWG23 Cat 6A LSZH Cca s1a d1 a1 Orange  
500m reel

## Contact

LAN Systems (Nexans Cabling Solutions)  
Phone: +44 (0)1256 486640  
ncs.uk@nexans.com

Nexans ref.: [N100.693G-OC](#)

- 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
- Dual version permits two cables to be installed in one go
- Enhanced reaction-to-fire performance according to CPR classification Cca-s1a,d1,a1 (h/EN50575:2014+A1:2016)

## 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.



# LANmark-6A

## STANDARDS

### International

EN 50173-1; EN 50288-4-1; IEC 60332-3; IEC 61156-5; ISO/IEC 11801

National ANSI/TIA-568-C.2



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



Operating temp.  
-20 .. 60 °C



Flame retardant  
IEC 60332-1



Smoke density  
IEC 61034



Gases corrosivity  
IEC 60754-1, IEC 60754-2



Fire retardant  
IEC 60332-3-24

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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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.

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.  
-20 .. 60 °C



Flame retardant  
IEC 60332-1



Smoke density  
IEC 61034



Gases corrosivity  
IEC 60754-1, IEC 60754-2



Fire retardant  
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## CHARACTERISTICS

### Construction characteristics

Type of cable	F/FTP
Outer sheath	LSZH
Colour	Orange

### Dimensional characteristics

Diameter over insulation	1.36 mm
Nominal outer diameter	7.7 mm
Approximate weight	100 kg/km
Conductor cross-section (AWG)	23

### Electrical characteristics

Mutual capacitance	45 nF/km
Max. DC resistance of the conductor at 20°C	80 Ohm/km
Characteristic impedance	100 Ohm
Max. transfer impedance at 30 MHz (Ohm/km)	120 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	>85 dB

### Mechanical characteristics

Maximum operating pulling force	100 N
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### 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)	62 mm
Minimum Bend Radius - Installed	31 mm
Flame retardant	IEC 60332-1
Smoke density	IEC 61034
Gases corrosivity	IEC 60754-1, IEC 60754-2
Length	500 m
Packaging	Reel
Fire retardant	IEC 60332-3-24

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## ELECTRICAL PERFORMANCE LANMARK-6A F/FTP CABLE

Electrical Performance LANmark-6A F/FTP cable

Freq	Attn		NEXT		PSNEXT		ACR-F		PS ACR-F		PS ANEXT		PS AACR-F		RL	
	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