

- Complies to all Category 6 cable standards
- Supports Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz

Description

Application

Nexans LANmark-6 cables are the ideal solution for most of today's network requirements in normal office environments. They are manufactured and tested to the latest Category 6 specifications defined in the International and American cable standards and are designed to meet the quality and performance criteria needed to support all applications up to 250 MHz.

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethernet
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM
- future class E applications

Design

LANmark-6 SF/UTP cables have AWG 23 solid copper wires and comply with IEC 60228.

The PE central cross filler helps maintain the stability of the cable geometry and reduces the risk of a reduction in performance when bending the cable.

The cables are available with a Dark Grey PVC or an Orange LSZH sheath. Both versions have flame retardant properties compliant with IEC 60332-1.

Performance

Tested to 350 MHz and with guaranteed performance to 250 MHz, Nexans LANmark-6 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.

Installation

LANmark-6 SF/UTP cables have a shielded construction consisting of a tinned copper braid and a global aluminium foil around the 4 pairs, offering optimal EMC performance. As the aluminium side of the foil is facing outwards, the foil does not need to be folded back to establish contact with the EMC rear cover of the LANmark connectors, which increases installation efficiency.

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.



LANmark-6

Standards

International EN 50288;
 IEC 61156-5; ISO/IEC 11801

National ANSI/TIA-568-C.2; TIA/
 EIA-568-B.2-1



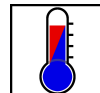
operation bending
 rad.
 62 mm



static bending rad.
 31 mm



Ambient installation T°C
 range
 -10 .. 50 °C



Operating temp.
 range
 -20 .. 60 °C



Fire retardant
 No









Flame retardant
 IEC 60332-1

Guarantees

The LANmark-6 cable performance is guaranteed to meet or exceed the requirements of the above mentioned standards.

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

Installations with LANmark-6 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.

					
operation bending rad. 62 mm	static bending rad. 31 mm	Ambient installation T°C range -10 .. 50 °C	Operating temp. range -20 .. 60 °C	Fire retardant No	Flame retardant IEC 60332-1

Characteristics

Construction characteristics	
Type of cable	SF/UTP
Outer sheath	LSZH
Colour	Orange
Screen	Aluminium foil + tinned copper braiding
Dimensional characteristics	
Diameter over insulation	1.13 mm
Conductor cross-section (AWG)	23
Nominal outer diameter	7.3 mm
Approximate weight	58 kg/km
Electrical characteristics	
Mutual capacitance	56 nF/km
Max. DC resistance of the conductor at 20°C	70 Ohm/km
Characteristic impedance	100 Ohm
Transmission characteristics	
Attenuation Crosstalk Ratio, 250MHz	5.5 dB/100m
Skew	30 ns/100m
Nominal Velocity of Propagation (NVP)	68.0 %
Coupling attenuation at 30 MHz	80 dB
Propagation delay, max. 100 MHz	536 ns/100m
Usage characteristics	
Category	Cat. 6
Range	LANmark-6
Laying operation bending radius	62 mm
Minimum static operating bending radius	31 mm
Ambient installation temperature, range	-10 .. 50 °C
Operating temperature, range	-20 .. 60 °C
Fire retardant	No
Flame retardant	IEC 60332-1
Length	500 m
Packaging	Reel
Field of application	Fixed installations

Electrical Performance

All values are specified at 20°C

Frequency	Attenuation dB/100m	NEXT dB	ACR dB/100m	PSNEXT(*) dB	ELFEXT dB/100m	PSELFEXT dB/100m	RL dB
1	2.0	74.3	72.3	72.3	70.0	67.0	20.0
4	3.8	65.3	61.5	63.3	58.0	55.0	23.0
10	6.0	59.3	53.3	57.3	50.0	47.0	25.0
16	7.6	56.2	48.6	54.3	45.9	42.9	25.0

LANmark-6 Cable

LANmark-6 SF/UTP LSZH 500m reel

20	8.5	54.8	46.3	52.8	44.0	41.0	25.0
31.25	10.7	51.9	41.2	49.9	40.5	37.5	23.6
62.5	15.4	47.4	32.0	45.4	34.1	31.1	21.5
100	19.8	44.3	24.5	42.3	30.0	27.0	20.1
155	25.2	41.4	16.2	39.5	26.2	23.2	18.8
200	29.0	39.8	10.8	37.8	24.0	21.0	18.0
250	32.8	38.3	5.5	36.3	22.0	19.0	17.3
300	36.4	37.1	1.5	35.2	20.5	17.5	16.8
350	39.8	36.1	-	34.2	19.1	16.1	14.1