LANmark-7 Cable

LANmark-7 S/FTP AWG23 Cat 7 LSZH Cca s1a d1 a1 Orange 1000m reel



Nexans Ref.: N100.365-OC

FIRE PERFORMANCE CLASS

C_{ca}-s1a,d1,a1

- S/FTP cable with individually shielded pairs and global braid
- Exceeds Category 7 ACR with >30dB
- Optimised for use with LANmark-7A GG45 connector
- Easy to install
- Enhanced reaction-to-fire performance according to CPR classification Cca-s1a,d1,a1 (h/EN50575:2014+A1:2016)

STANDARDS

Product EN 50173; EN 50288-4-1; IEEE 802.3bt (PoE++); ISO/IEC 61156-5

Test IEC 60332-3-24

International ISO/IEC 11801

DESCRIPTION

LANmark-7 cable has an S/FTP construction with individual pair foils and an overall braid offering superior performance in terms of ACR. It is fully compliant with the Category 7 standards and when installed together with the GG45 LANmark-7A connector, the system is guaranteed to exceed all channel requirements in all configuration scenarios (up to 4-connector channels).

Application

LANmark-7 will support all current and planned data applications developed for cabling up to Class F.

- All Ethernet applications including
- 1000Base-T
- 1000Base-TX
- 10GBase-T
- CATV up to 862MHz
- Any future Class F application

Installation

Ease of Installation is one of the unique features of LANmark-7 cable. Extra attention has been paid to ensure screen coverage is maintained both during and after installation. The cable has been designed specifically to offer both optimum performance and ease of termination when used in conjunction with the LANmark-7A GG45 connector.

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.

Lead free
Yes

Ambient installation T° C range
-10 ... 60 °C

Operating temp.
-20 ... 60 °C

Flame retardant
IEC 60332-1

Fire retardant
IEC 60332-3-24 (cat C)

Smoke density
IEC 61034-2

Gases corrosivity
IEC 60754-1; IEC 60754-2

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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CHARACTERISTICS

Construction characteristics	
Type of cable	S/FTP
Screen	Aluminium foil + tinned copper braiding
Drain wire	No
Lead free	Yes
Outer sheath	LSZH
Sheath colour	Orange
Dimensional characteristics	
Number of pairs	4
Diameter over insulation	1.42 mm
Nominal outer diameter	7.6 mm
Conductor cross-section (AWG/KCMIL)	23
Approximate weight	50 kg/km
Electrical characteristics	
Characteristic impedance	100 Ohm
Max. transfer impedance at 30 MHz (Ohm/km)	50 Ohm/km
Max. DC resistance of the conductor at 20°C	80 Ohm/km
Mutual capacitance	45 nF/km
Transmission characteristics	
Skew	25 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
Usage characteristics	
Category	Cat. 7
Range	LANmark-7
Ambient installation temperature, range	-10 ... 60 °C
Operating temperature, range	-20 ... 60 °C
Minimum Bend Radius - During Installation (under Tension)	61 mm
Minimum Bend Radius - Installed	31 mm
Flame retardant	IEC 60332-1
Fire retardant	IEC 60332-3-24 (cat C)
Smoke density	IEC 61034-2
Gases corrosivity	IEC 60754-1; IEC 60754-2
Length	1000 m
Packaging	Reel

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ELECTRICAL PERFORMANCE LANMARK-7 CABLE

Frequency (MHz)	Attenuation (dB/100m)		NEXT (in dB)		ACR (in dB)		PS-NEXT (in dB)		ACR-F (in dB)		PS-ACR-F (in dB)		Return Loss (in dB)	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1,00	4,0	1,8	75,0	100,0	71,0	98,2	72,0	98,0	75,0	98,0	75,0	96,0	20,0	
4,00	4,0	3,5	75,0	100,0	71,0	96,5	72,0	98,0	75,0	98,0	75,0	96,0	23,0	26,0
10,00	5,9	5,5	75,0	100,0	69,1	94,5	72,0	98,0	75,0	98,0	72,3	96,0	25,0	28,0
16,00	7,4	6,8	75,0	100,0	67,6	93,2	72,0	98,0	71,2	96,0	68,2	94,0	25,0	28,0
20,00	8,3	7,7	75,0	100,0	66,7	92,3	72,0	98,0	69,3	94,0	66,3	92,0	25,0	28,0
31,25	10,4	9,6	75,0	100,0	64,6	90,4	72,0	98,0	65,4	90,0	62,4	88,0	23,6	26,0
62,50	14,9	14,0	75,0	100,0	60,1	86,0	72,0	98,0	59,4	84,0	56,4	82,0	21,5	25,0
100,00	19,0	17,7	72,4	100,0	53,4	82,3	69,4	98,0	55,3	75,0	52,3	73,0	20,1	24,0
155,00	24,0	22,8	69,5	96,0	45,6	73,2	66,5	93,0	51,5	70,0	48,5	68,0	18,8	23,0
250,00	31,0	29,0	66,4	94,0	35,5	65,0	63,4	91,0	47,3	66,0	44,3	64,0	17,3	22,0
300,00	34,2	32,1	65,2	92,0	31,1	59,9	62,2	88,0	45,8	54,0	42,8	52,0	17,3	20,0
600,00	50,1	45,5	60,7	90,0	10,6	44,5	57,7	86,0	39,7	54,0	36,7	52,0	17,3	20,0

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