LANmark-8 Cable

LANMARK-8 S/FTP AWG22 CAT 8.2 2000MHZ LSZH DCA S2 D2 A1 ORANGE 1000M REEL



Aginode Ref: N100.481-OD

- High Quality Data Cables for Datacentres
- S/FTP Design with dual shielding for optimal protection against EMI and Exogenous Noise (Alien Crosstalk)
- Cable exceeds Category 8
- Superior Performance with positive ACR over the full frequency range up to 80m
- Optimised for use with LANmark GG45 connector
- Reaction-to-fire performance according to CPR classification Dca-s2,d2,a1 (h/EN50575:2014+A1:2016)

STANDARDS

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

Description

LANmark-8 S/FTP are 4 pair cable with individual pair foils and an overall braid offering superior performance up to 2000 MHz. The cables are fully compliant with the new Category 8 standards for Datacentres and remain to be Cat7A compliant for Enterpise use. Due to their excellent electrical performance and very low Noise levels the cables support applications like 10GBASE-T over 100m and 25/40GBASE-T over 30m and beyond.

Application

Cat7A/Cat 8 are the highest performing standardised cable specifications for Enterprise market and Datacentre market and will support all current data applications and all planned applications using cabling up to Class FA or Class I/II.

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-T
- 25GBase-T and 40GBase-T (according to 802.3bq Draft 2.4)
- POE, POE+, POE++ (Draft)
- Cable sharing applications including CATV up to 862MHz
- Any future Class FA, Class I and Class II application

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Installation

Improved Screening against outside noise sources and ease of installation are the main features of LANmark-8 cables. Extra attention has been paid to ensure that the screen coverage is maintained and foils do not open during installation. The cables have been specially designed to be used in conjunction with the LANmark GG45 12C 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.

Electrical Performance LANmark-8 Cable

FREQ in MHz	IL in dB/100m		RL in dB		NEXT in dB		ACRF in dB		TCL in dB		Prop.Delay in ns/100m		PSANEXT in dB		PSAACRF in dB	
	Std. Req.	Max	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min
1	2,1	2,1	20,0	20,0	75,0	75,0	75,0	75,0	50,0	45,0	570	483	80,0	80,0	80,0	80,0
4	3,7	3,7	23,0	23,0	75,0	75,0	75,0	75,0	41,0	39,0	552	468	80,0	80,0	80,0	80,0
10	5,8	5,8	25,0	25,0	75,0	75,0	75,0	75,0	35,0	35,0	545	470	80,0	80,0	80,0	80,0
16	7,3	7,3	25,0	25,0	75,0	75,0	75,0	75,0	31,9	33,0	543	468	80,0	80,0	78,1	80,0
20	8,2	8,2	25,0	25,0	75,0	75,0	74,3	75,0	30,5	32,0	542	467	80,0	80,0	76,2	80,0
30	10,1	10,0	25,0	25,0	75,0	75,0	70,8	75,0	27,8	30,2	541	466	80,0	80,0	72,7	80,0
63	14,6	14,4	23,6	23,6	75,9	75,0	64,4	74,4	23,1	27,0	539	464	80,0	80,0	66,3	76,3
100	18,5	18,3	22,2	22,2	75,0	75,0	60,3	70,3	20,0	25,0	538	463	80,0	80,0	62,2	72,2
200	26,5	26,1	20,1	20,1	70,9	73,9	54,3	64,3	15,5	22,0	537	462	80,0	80,0	56,2	66,2
300	32,7	32,1	18,9	18,9	68,2	71,2	50,8	60,8	12,8	20,2	536	462	80,0	80,0	52,7	62,7
400	38,0	37,2	18,0	18,0	66,4	69,4	48,3	58,3	11,0	19,0	536	462	78,5	80,0	50,2	60,2
600	47,1	45,9	16,8	16,8	63,7	66,7	44,7	54,7	8,3	17,2	535	461	75,8	80,0	46,6	56,6
1000	61,9	59,9	15,2	15,2	60,4	63,4	40,3	50,3	7,0	15,0	535	461	72,5	80,0	42,2	52,2
1200	68,4	66,0	14,7	14,7	59,2	62,2	38,7	48,7	7,0	14,2	535	461	71,3	80,0	40,6	50,6
1500	77,2	74,2	14,0	14,0	57,8	60,8	36,8	46,8	7,0	13,2	535	461	69,9	79,9	38,7	48,7
1600	80,0	76,8	13,8	13,8	57,3	60,3	36,2	46,2	7,0	13,0	535	461	69,4	79,4	38,1	48,1
1800	85,4	81,8	13,4	13,4	56,6	59,6	35,2	45,2	7,0	12,4	535	461	68,7	78,7	37,1	47,1
2000	90,5	86,5	13,1	13,1	55,9	58,9	34,3	44,3	7,0	12,0	535	461	68,0	78,0	36,2	46,2

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Characteristics

Construction characteristics	
Screen	Aluminium tape and copper braid
Outer sheath	LSZH
Sheath colour	Orange
Lead free	Yes
Type of cable	S/FTP
Drain wire	No
Dimensional characteristics	
Approximate weight	72 kg/km
Number of pairs	4
Conductor cross-section (AWG/KCMIL)	22
Diameter over insulation	1.58 mm
Nominal outer diameter (mm)	8.6 mm
Electrical characteristics	
Mutual capacitance	45 nF/km
Characteristic impedance	100 Ohm
Max. transfer impedance at 30 MHz (Ohm/km)	5 Ohm/km
Max. DC resistance of the conductor at 20°C	60 Ohm/km
Mechanical characteristics	
Maximum pulling force by laying	0.19 kN
Transmission characteristics	
Skew	25 ns/100m
Nominal Velocity of Propagation (NVP)	76 %
Propagation delay, max. 100 MHz	463 ns/100m
Usage characteristics	
Electro magnetic interference resistance	Yes

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Range	LANmark-7A
Field of application	Fixed installations
Length	1000 m
Operating temperature, range	-20...60 °C
Fire retardant	IEC 60332-3-24 (cat C)
Minimum static operating bending radius	34 mm
Category	Cat. 7A
Fire load	725 MJ/km
Flame retardant	IEC 60332-1
Packaging	Reel
Laying operation bending radius	68 mm
Ambient installation temperature, range	0...70 °C

Documentation

DoP EN N100481-OD pdf — 193.25 KB Download

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