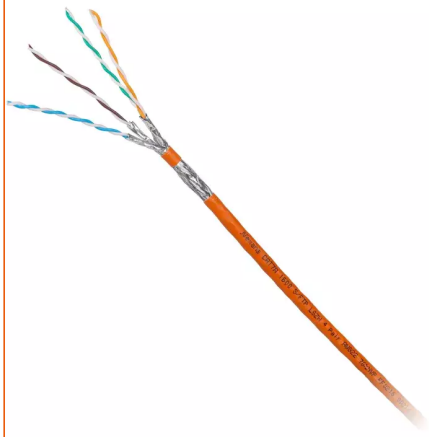
LANmark-7A Cable

LANMARK-7A 1250 S/FTP AWG23 CAT 7A 1250MHZ LSZH CCA S1A D1 A1 ORANGE 1000M REEL





Aginode Ref: N100.371-OC

- High Quality Data Cables for simultaneous use with POE+ and POE++
- All Cable exceed Category 7A in terms of ACR and Frequency Range
- Superior Performance with positive ACR over the full frequency range
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with GG45 connectivity through special foil construction
- Enhanced reaction-to-fire performance according to CPR classification Cca-s1a,d1,a1 (h/EN50575:2014+A1:2016)

Description

LANmark-7A are 4 pair S/FTP cables with individual pair foils and an overall braid offering upper frequencies of at least 1250MHz but up to 1600MHz. All cables are fully compliant with Category 7A standard and offer even large headroom above the Cat 7A requirement. Due to this excellent electrical performance and positive ACR all cables supports applications beyond 10GBASE-T, including 25GBASE-T.

Application

LANmark-7A is the highest performing standardised cabling solution in the enterprise market and will support all current data applications and all planned applications using cabling up to Class FA.

- All Ethernet applications including
- 10/100/1000Base-T
- 1000Base-TX
- 10GBase-T
- 25GBase-T up to 30m
- POE, POE+, POE++ (Draft)
- Cable sharing applications including CATV up to 862MHz
- Any future Class FA application

STANDARDS

EN 50173-1
EN 50288-4-1
IEC 60332-3-24
IEC 61156-5
IEEE 802.3bt (PoE++)
ISO/IEC 11801

Installation

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Ease of Installation is one of the main features of the LANmark-7A cable. Extra attention has been paid to ensure that the screen coverage is maintained and foils do not open during installation. The cable has been specially designed to be used in conjunction with the LANmark-7A 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-7A 1250 Cable

Frequency (in MHz)	Attenuation (in dB/100m)		NEXT pp (in dB)		ACR-F (in dB)		RL (in dB)		Coupling Att. (in dB)		PSANEXT (in dB)		PSAFEXT (in dB)	
	Std Max	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical
1	4,0	4,0	65,0	104,8	65,0	70,0	19,0	38,0	80,0	106,0	67,0	92,4	80,0	83,0
4	4,1	4,0	65,0	94,6	65,0	70,0	19,0	32,0	68,0	94,0	67,0	92,1	79,8	82,8
10	6,4	6,3	65,0	87,8	65,0	70,0	19,0	28,0	60,0	86,0	67,0	91,0	75,9	78,9
16	8,0	7,9	65,0	84,2	63,3	68,3	18,0	26,0	55,9	81,9	67,0	90,0	73,9	76,9
20	9,0	8,9	65,0	82,5	61,4	66,4	17,5	25,0	54,0	80,0	67,0	89,4	72,9	75,9
31,25	11,2	11,1	65,0	79,1	57,5	62,5	16,5	23,1	50,1	76,1	67,0	88,0	71,0	74,0
62,5	15,9	15,6	65,0	73,7	51,5	56,5	14,0	20,0	44,1	70,1	67,0	85,3	68,0	71,0
100	20,3	19,7	65,0	70,0	47,4	52,4	12,0	18,0	40,0	66,0	67,0	83,1	65,9	68,9
155	25,4	24,5	63,0	66,6	43,6	48,6	10,1	16,1	36,2	62,2	67,0	80,8	63,9	66,9
200	28,9	27,9	60,9	64,6	41,4	46,4	9,0	15,0	34,0	60,0	67,0	79,4	62,8	65,8
250	32,5	31,2	59,1	62,8	39,4	44,4	8,0	14,0	32,0	58,0	67,0	78,1	61,8	64,8
300	35,7	34,1	57,7	61,3	37,8	42,8	8,0	13,2	30,5	56,5	67,0	77,1	60,9	63,9
500	46,7	44,1	53,6	57,2	33,4	38,4	8,0	11,0	26,0	52,0	64,5	75,0	58,6	61,6
600	51,4	48,3	52,1	55,8	31,8	36,8	8,0	10,2	24,4	50,4	63,3	75,0	57,8	60,8
700	55,8	52,1	50,8	54,5	30,5	35,5	7,5	9,5	23,1	49,1	62,3	75,0	57,1	60,1
800	59,9	55,7	49,7	53,5	29,3	34,3	7,0	9,0	21,9	47,9	61,5	75,0	56,4	59,4
900	63,8	59,1	48,8	52,5	28,3	33,3	6,5	8,5	20,9	46,9	60,7	74,0	55,9	58,9
1000	67,6	62,3	47,9	51,6	27,4	32,4	6,0	8,0	20,0	46,0	60,0	73,0	55,4	58,4
1250		70,0		42,0		25,0		8,0		40,0		70,0		50,0

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LANmark-7A 1250 S/FTP AWG23 Cat 7A 1250MHz LSZH Cca s1a d1 a1 Orange 1000m reel

Characteristics

Construction characteristics	
Screen	Aluminium foil + tinned copper braiding
Outer sheath	LSZH
Sheath colour	Orange
Lead free	Yes
Type of cable	S/FTP
Drain wire	No
Dimensional characteristics	
Approximate weight	68 kg/km
Number of pairs	4
Conductor cross-section (AWG/KCMIL)	23
Diameter over insulation	1.45 mm
Nominal outer diameter (mm)	7.9 mm
Electrical characteristics	
Mutual capacitance	45 nF/km
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
Mechanical characteristics	
Maximum operating pulling force	100 N
Transmission characteristics	
Skew	25 ns/100m
Nominal Velocity of Propagation (NVP)	82 %
Coupling attenuation at 30 MHz	>85 dB
Propagation delay, max. 100 MHz	536 ns/100m
Usage characteristics	

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Range	LANmark-7A
Gases corrosivity	IEC 60754-1; IEC 60754-2
Length	1000 m
Operating temperature, range	-20...60 °C
Fire retardant	IEC 60332-3-24 (cat C)
Category	Cat. 7A
Flame retardant	IEC 60332-1
Smoke density	IEC 61034-2
Packaging	Reel
Ambient installation temperature, range	0...50 °C
Minimum Bend Radius - During Installation (under Tension)	63 mm
Minimum Bend Radius - Installed	32 mm

Documentation

Freetable LM7A Channel - 1250.xls xls — 24 KB Download

Declaration of Performance

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