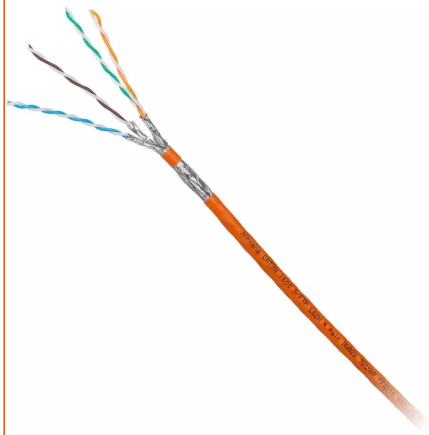
LANmark-7A Cable

LANMARK-7A 1250 S/FTP AWG23 CAT 7A 1250MHZ LSZH DCA S2 D1 A1 ORANGE 1000M REEL





Aginode Ref: N100.371-OD

- 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

p>**Description**

LANmark-7A is a 4 pair S/FTP cable with individual pair foils and an overall braid offering superior performance up to at least 1250MHz. It is fully compliant with the latest Category 7A standard and offers even large headroom above the Cat 7A requirement. Due to this excellent electrical performance and positive ACR up to at least 1250MHz the cable supports the applications like 10GBASE-T as well as 25GBASE-T

Application

LANmark-7A is the highest performing standardised cabling solution in the market and will support all current Ethernet applications up to 25G and all planned applications using cabling up to Class FA.

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

Installation

Ease of Installation is one of the main features of the LANmark-7A cable. Extra attention has been paid to ensure

STANDARDS

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

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

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

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

LANmark-7A 1250 S/FTP AWG23 Cat 7A 1250MHz LSZH Dca s2 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	61 kg/km
Number of pairs	4
Conductor cross-section (AWG/KCMIL)	23
Diameter over insulation	1.45 mm
Nominal outer diameter (mm)	7.7 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	

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

Range	LANmark-7A
Gases corrosivity	IEC 60754-1; IEC 60754-2
Length	1000 m
Operating temperature, range	-20...60 °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)	62 mm
Minimum Bend Radius - Installed	31 mm

Documentation

Freetable LM7A 1250 V2-2016.xls xls — 25 KB Download

Declaration of Performance

LANmark-7A 1250 S/FTP AWG23 Cat 7A 1250MHz LSZH Dca s2 d1 a1 Orange 1000m reel pdf — 140.66 KB Download

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