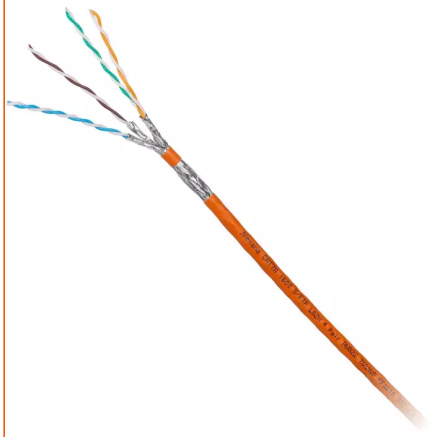
LANmark-7A Cable

LANMARK-7A 1600 S/FTP AWG22 CAT 7A 1600MHZ LSZH B2CA S1A D1 A1 ORANGE 1000M REEL





Aginode Ref: N100.381-OB

- Exceeds Category 7A in terms of ACR and Frequency Range
- Suitable for channels with capacity above 25GBps
- AWG22 Wire Size
- Positive Attenuation to Crosstalk Ratio up to 1600MHz
- Optimised for use with LANmark-7A GG45 connector
- Easy to install with Cat 7A connectivity through special foil construction
- Superior reaction-to-fire performance according to CPR classification B2ca-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

Installation

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.

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 1600 Cable

Frequency (in MHz)	Attenuation (dB/100m)		NEXT (in dB)		ACR (in dB)		PS-ANEXT (in dB)		ACR-F (in dB)		TCL (in dB)		Return Loss (in dB)	
	Max.	Typical	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1,00	2,1	1,9	75,0	105,0	72,9	103,1	80,0	87,5	88,0	83,0	40,0	43,0	20,0	30,0
4,00	3,7	3,5	75,0	105,0	71,3	101,5	80,0	87,5	88,0	83,0	34,0	37,0	23,0	33,0
10,00	5,8	5,4	75,0	105,0	69,2	99,6	80,0	87,5	88,0	83,0	30,0	33,0	25,0	34,0
16,00	7,3	6,8	75,0	105,0	67,7	98,2	80,0	87,5	88,0	83,0	28,0	31,0	25,0	34,0
20,00	8,2	7,6	75,0	105,0	66,8	97,4	80,0	87,5	88,0	83,0	27,0	30,0	25,0	34,0
31,25	10,3	9,5	75,0	105,0	64,7	95,5	80,0	87,5	88,0	83,0	25,1	28,1	23,7	32,7
62,50	14,6	13,4	75,0	105,0	60,4	91,6	80,0	87,5	88,0	83,0	22,1	25,1	21,6	30,6
100,00	18,5	17,1	75,0	102,4	56,5	85,4	80,0	87,5	85,3	80,3	20,0	23,0	20,1	29,1
155,00	23,2	21,3	72,5	97,6	49,3	76,3	80,0	87,5	80,5	75,5	18,1	21,1	18,8	27,8
300,00	32,7	29,9	68,2	90,5	35,6	60,6	80,0	87,5	73,4	68,4	15,2	18,2	17,3	26,3
600,00	47,1	42,7	63,7	82,9	16,6	40,3	75,8	83,3	65,8	60,8	12,2	15,2	17,3	26,3
800,00	54,9	49,6	61,9	79,8	6,9	30,2	74,0	81,5	62,7	57,7	11,0	14,0	16,1	23,6
1000,00	61,9	55,7	60,4	77,4	-1,5	21,7	72,5	80,0	60,3	55,3	10,0	13,0	15,1	21,9
1200,00	68,4	61,3	59,2	75,4	-9,1	14,1	71,3	78,8	58,3	53,3	9,2	12,2	14,3	20,3
1500,00	77,2	69,0	57,8	73,0	-19,5	4,0	69,9	77,4	55,9	50,9	8,2	11,2	13,3	18,3
1600,00	80,0	71,4	57,3	72,3	-22,7	0,9	69,4	76,9	55,2	50,2	8,0	11,0	13,0	17,8

Internal Description	UK MRO 130903 Electrical Performance LM7A 1600
Title	Electrical Performance LANmark-7A 1600 Cable
Description	Typical Electrical Performance LANmark-7A 1600 Cable Maximum/Minimum requirements according to IEC61156-9 NP Draft 2013
Comment	

Squared	☑
Table width	100
Centered	☐
Use small font for PDF	☐
Online	☑
Page break allowed	☐

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 1600 S/FTP AWG22 Cat 7A 1600MHz LSZH B2ca s1a d1 a1 Orange 1000m reel

Characteristics

Construction characteristics	
Drain wire	No
Lead free	Yes
Outer sheath	LSZH
Screen	Aluminium foil + tinned copper braiding
Sheath colour	Orange
Type of cable	S/FTP
Dimensional characteristics	
Approximate weight	78 kg/km
Conductor cross-section (AWG/KCMIL)	22
Diameter over insulation	1.53 mm
Nominal outer diameter (mm)	8.3 mm
Number of pairs	4
Electrical characteristics	
Characteristic impedance	100 Ohm
Max. DC resistance of the conductor at 20°C	85 Ohm/km
Max. transfer impedance at 30 MHz (Ohm/km)	50 Ohm/km
Mutual capacitance	45 nF/km
Mechanical characteristics	
Maximum operating pulling force	100 N
Transmission characteristics	
Coupling attenuation at 30 MHz	>85 dB
Nominal Velocity of Propagation (NVP)	76 %
Propagation delay, max. 100 MHz	536 ns/100m
Skew	25 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.

Ambient installation temperature, range	0...50 °C
Category	Cat. 7A
Fire retardant	IEC 60332-3-24 (cat C)
Flame retardant	IEC 60332-1
Gases corrosivity	IEC 60754-1; IEC 60754-2
Length	1000 m
Minimum Bend Radius - During Installation (under Tension)	69 mm
Minimum Bend Radius - Installed	34 mm
Operating temperature, range	-20...60 °C
Packaging	Reel
Range	LANmark-7A
Smoke density	IEC 61034-2

Documentation

Freetable LM7A 1600.xls xls — 35 KB Download

Declaration of Performance

LANmark-7A 1600 S/FTP AWG22 Cat 7A 1600MHz LSZH B2ca s1a d1 a1 Orange 1000m reel pdf — 141.38 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.