

# LANmark-6A Cable

LANMARK-6A F1/UTP AWG23 CAT 6A LSZH DCA S2 D1 A1 ORANGE 500M REEL

**Aginode Ref:** N100.624G-OD

- Ideal cable for 10GBase-T application
- Full compliance to latest standards for Category 6A and Class EA
- Guaranteed performance up to 500MHz
- Global screen offering Alien Crosstalk immunity
- Foil with aluminium side facing outwards providing easy mass contact with connector

## Application

LANmark-6A cables are the ideal solution for a 10G Ethernet network. The range has been designed specifically to support the higher frequencies required for 10 Gigabit Ethernet, while maintaining full backwards compatibility with today's needs. All LANmark-6A cables are shielded, in order to ensure immunity to Alien Crosstalk and other external interferences.

- 10Base-T Ethernet
- 100Base-TX Fast Ethernet
- 1000Base-TX Gigabit Ethernet
- 10GBase-T 10 Gigabit Ethernet IEEE 802.3
- 155 Mbit ATM
- 1.2 Gbit ATM
- future Cat 6A and Class EA applications
- PoE++ Type 4 (IEEE 802.3bt)

## Performance

With guaranteed performance to 500MHz, Aginode LANmark-6A cables exceed the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568.2-D

When used in combination with Aginode LANmark-6A connectors and LANmark-6A Ultim patch cords, the system supports the 10GBase-T applications as defined in IEEE 802.3an and meets or exceeds the link and channel requirements for Category 6A and Class EA as defined in TIA/EIA 568.2-D and ISO/IEC 11801.



## STANDARDS

ANSI/TIA 568.2-D  
EN 50173-1  
EN 50288-4-1  
IEC 61156-5  
IEEE 802.3bt (PoE++)  
ISO/IEC 11801

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.

# Installation

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.

# Guarantees

Traceability codes on both cable and packaging ensure quality validation of the installed cable.

Installations with LANmark-6A cable and connectivity are qualified for a 25 year full system warranty, which includes Parts, Channel Performance, Application Support and Labour, as described in the Aginode Certified System Warranty.

# Electrical Performance LANmark-6A F1/UTP Cable

Freq in MHz	Att in dB		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		PS ANEXT in dB		PS AACR-F in dB		RL in dB	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	67.8	64.8	64.8	67.0	90.0	67.0	70.7	20.0	26.0
4	3.8	3.8	65.3	70.3	63.3	68.3	55.8	55.8	52.8	52.8	67.0	90.0	69.2	75.9	23.0	29.0
10	5.9	5.9	59.3	64.3	57.3	62.3	47.8	47.8	44.8	44.8	67.0	67.0	58.2	67.9	25.0	31.0
16	7.5	7.5	56.2	61.2	54.2	59.2	43.7	43.7	40.7	40.7	67.0	65.0	54.1	63.8	25.0	31.0
20	8.4	8.4	54.8	59.8	52.8	57.8	41.8	41.8	38.8	38.8	67.0	64.0	52.2	61.9	25.0	31.0
31.25	10.5	10.5	51.9	56.9	49.9	54.9	37.9	37.9	34.9	34.9	67.0	62.1	48.3	58.0	23.8	29.8
62.5	15.0	15.0	47.4	52.4	45.4	50.4	31.9	31.9	28.9	28.9	65.6	79.0	42.3	52.0	21.5	27.5
100	19.1	19.1	44.3	49.3	42.3	47.3	27.8	27.8	24.8	24.8	62.5	77.0	38.2	47.9	20.1	26.1
156	24.1	24.1	41.4	46.4	39.4	44.4	24.0	24.0	21.0	21.0	59.6	74.1	34.4	44.1	18.8	24.8
200	27.6	27.6	39.8	44.8	37.8	42.8	21.8	21.8	18.8	18.8	58.0	72.5	32.2	41.9	18.0	24.0
250	31.1	31.1	38.3	43.3	36.3	41.3	19.8	19.8	16.8	16.8	56.5	71.0	30.2	39.9	17.3	23.3
300	34.3	34.3	37.1	42.1	35.1	40.1	18.3	18.3	15.3	15.3	55.3	69.8	28.7	38.4	16.8	22.8
900	45.3	45.3	33.8	38.8	31.8	36.8	13.8	13.8	10.8	10.8	52.0	66.5	24.2	33.9	15.2	21.2

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# LANmark-6A F1/UTP AWG23 Cat 6A LSZH Dca s2 d1 a1

## Orange 500m reel

### Characteristics

#### Construction characteristics

Colour	Orange
Outer sheath	LSZH
Type of cable	F/UTP

#### Dimensional characteristics

Approximate weight	52 kg/km
Conductor cross-section (AWG/KCMIL)	23
Diameter over insulation	1.1 mm
Nominal outer diameter (mm)	7.5 mm

#### Electrical characteristics

Mutual capacitance	45 nF/km
Characteristic impedance	100 Ohm
Max. transfer impedance at 30 MHz (Ohm/km)	120 Ohm/km
Max. DC resistance of the conductor at 20°C	80 Ohm/km

#### Mechanical characteristics

Maximum operating pulling force	100 N
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#### Transmission characteristics

Skew	45 ns/100m
Nominal Velocity of Propagation (NVP)	70 %
Coupling attenuation at 30 MHz	>70 dB
Propagation delay, max. 100 MHz	536 ns/100m

#### Usage characteristics

Range	LANmark-6A
Gases corrosivity	IEC 60754-1; IEC 60754-2
Length	500 m
Operating temperature, range	-20...60 °C

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Category	Cat. 6A
Flame retardant	IEC 60332-1
Smoke density	IEC 61034
Packaging	Reel
Ambient installation temperature, range	-10...60 °C
Minimum Bend Radius - During Installation (under Tension)	60 mm
Minimum Bend Radius - Installed	30 mm

## Documentation

Freetable LM6A F1UTP V3\_2.xls xls — 21 KB [Download](#) ↓

## Declaration of Performance

LANmark-6A F1/UTP AWG23 Cat 6A LSZH Dca s2 d1 a1 Orange 500m reel pdf — 141.21 KB [Download](#) ↓