LANmark-7A/-8 GG45 Connector

LANMARK GG45 SNAP-IN CONNECTOR CAT 7A/8 2000MHZ SCREENED SOLID WIRE

Aginode Ref: N420.735

- RJ45-compatible Cat 7A/Cat 8 connector using Aginode unique GG45 interface
- Specified up to 2 GHz
- Able to support applications beyond 10G, including 25GBase-T and 40GBase-T
- Cat7A / Class FA Channel compliance with Cat 7A Cable
- Cat 8 / Class I / II Channel compliance with Cat 8 Cable
- Supports PoE++ Type 4 applications delivering up to 90W/71W (IEEE 802.3bt)
- 360° shielding offering Alien Crosstalk immunity
- Accepts solid wire from 22 to 24 AWG
- Version for stranded wire available for CP to TO links
- Fits all Aginode LANmark Snap-In panels and mounting hardware
- An adapter can be added to fit the keystone format



STANDARDS

EN 50173-1
IEC 60603-7-71
IEEE 802.3af (PoE)
IEEE 802.3bt (PoE++)
IEEE 802.3at (PoE+)
ISO/IEC 11801

Design and application

Aginode LANmark GG45 is a screened RJ45-compatible jack specified up to 2000 MHz and specifically designed to support the high frequencies required for applications beyond 10 Gigabit Ethernet.

- Combined with LANmark-7A cable, the GG45 connector supports 25GBase-T applications. (*)
- Combined with LANmark-8 cable, the GG45 connector supports 40GBase-T applications. (*)

(*) over 30m Channel lengths.

The LANmark GG45 connector features 12 contacts: 8 contacts for the 2000 MHz transmission (GG-mode) and 4 additional contacts to ensure RJ45 compatibility (RJ Mode).

An overall die-cast housing and a fully closed metal rear cover, providing 360 degrees shielding, offer excellent coupling attenuation and immunity to Alien Crosstalk and other external interferences.

LANmark GG45 connectivity, in conjunction with LANmark-7A cable, fully complies with the requirements for Category 7A / Class FA Channels as specified in ISO/IEC 11801 and EN 50173-1. In conjunction with LANmark-8 cable, the requirements for

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Class I/II Channels over max. 30m distance are met, as described in ISO 11801.

As such, LANmark-7A/8 Channels support all applications up to 1000 MHz and 2000 MHz respectively, providing at the same time backward compatibility with lower speed applications:

- 10Base-T Ethernet
- 100Base-TX Fast Ethernet
- 1000Base-TX Gigabit Ethernet
- 10GBase-T 10 Gigabit Ethernet IEEE 802.3
- 25GBase-T 25 Gigabit Ethernet IEEE 802.3bq
- 40GBase-T 40 Gigabit Ethernet IEEE 802.3bq
- 155 Mbit ATM
- 1.2 Gbit ATM
- POE Plus IEEE802.3at
- POE Plus IEEE802.3bt
- CATV up to 862MHz
- all future Cat 6A and Class EA applications
- all future Cat 7 and Class F applications
- all future Cat 7A and Class FA applications
- all future Cat 8 and Class I / II applications

Performance

LANmark GG45 meets the stringent requirements of Category 7A up to 1000 MHz and Category 8 up to 2000 MHz. The connector engine features a metal cross to keep the 4 pairs separated from each other, ensuring a significant reduction of internal and external crosstalk (NEXT/FEXT, Power Sum NEXT/FEXT and Alien Crosstalk) and optimising Signal to Noise Ratios.

Installation

The wire organiser which is specifically designed for terminating the GG45 connector allows for a smooth and reliable wiring. In addition, using the Aginode patented Easy Termination Tool (N422.117) ensures adequate and swift preparation of the shielded pairs of the cable and fool-proof installation.

The LANmark GG45 connector fits all structural hardware designed for LANmark Snap-In connectors and can be used in all positions of a 4 connector Channel (Patch Panel, Cross Connect, Consolidation Point, Outlet).

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For CP and CC configurations the GG45 version for stranded wire cable (N420.736) should be used.

Guarantees

Channels built with LANmark GG45 connectivity and LANmark-7A or LANmark-8 cable qualify for a Class FA or Class I/II System warranty respectively, for a period of 25 years, including parts, installation, channel performance and application support.

For a Warranty certificate to be issued, the Warranty application process must be followed.

Traceability codes on both connector and packaging ensure quality validation.

FREQ in MHz	IL in dB		RL in dB		NEXT in dB		FEXT in dB		TCL in dB		PSANEXT in dB		PSAFEXT in dB	
	Std Req.	Max	Std Req.	Min	Std Req.	Min	Std Req.	Min	Std Req.	Min	Std Req.	Min	Std Req.	Min
1	0,02	0,02	30,0	30,0	75,0	75,0	75,0	72,0	50,0	50,0	75,0	84,0	75,0	84,0
4	0,04	0,04	30,0	30,0	75,0	75,0	75,0	72,0	50,0	50,0	75,0	84,0	75,0	84,0
10	0,06	0,06	30,0	30,0	75,0	75,0	75,0	72,0	48,0	50,0	75,0	84,0	75,0	84,0
16	0,08	0,08	30,0	30,0	75,0	75,0	75,0	72,0	43,9	49,9	75,0	84,0	75,0	84,0
20	0,09	0,09	30,0	30,0	75,0	75,0	75,0	72,0	42,0	48,0	75,0	84,0	75,0	84,0
31	0,11	0,11	30,0	30,0	75,0	75,0	73,5	72,0	38,2	44,2	73,5	84,0	73,5	84,0
63	0,16	0,16	30,0	30,0	75,0	75,0	67,3	72,0	32,0	38,0	67,3	84,0	67,3	84,0
100	0,20	0,20	28,0	32,0	75,0	75,0	63,3	72,0	28,0	34,0	63,3	84,0	63,3	84,0
155	0,25	0,25	24,2	28,2	72,5	72,5	59,5	69,5	24,2	30,2	59,5	84,0	59,5	84,0
200	0,28	0,28	22,0	26,0	70,3	70,3	57,3	67,3	22,0	28,0	57,3	84,0	57,3	82,8
300	0,35	0,35	18,5	22,5	66,8	66,8	53,8	63,8	18,5	24,5	53,8	84,0	53,8	79,3
400	0,40	0,40	16,0	20,0	64,3	64,3	51,3	61,3	16,0	22,0	51,3	83,5	51,3	76,8
600	0,49	0,49	12,4	16,4	60,7	60,7	47,7	57,7	12,4	18,4	47,7	79,9	47,7	73,2
1.000	0,63	0,63	10,0	12,0	51,9	51,9	43,3	48,9	8,0	14,0	43,3	75,5	43,3	68,8
1.200	0,95	0,79	12,0	12,0	21,8	36,0	21,5	33,0	12,4	12,4	73,9	73,9	66,4	67,2
1.500	1,16	1,02	12,0	12,0	17,9	34,0	19,6	31,0	10,5	10,5	72,0	72,0	64,5	65,3
1.600	1,23	1,10	12,0	12,0	16,8	34,0	19,0	31,0	9,9	9,9	71,4	71,4	63,9	64,7
1.800	1,36	1,25	12,0	12,0	14,8	34,0	18,0	31,0	8,9	8,9	70,4	70,4	62,9	63,7
2.000	1,50	1,39	12,0	12,0	12,9	34,0	17,1	31,0	8,0	8,0	69,5	69,5	62,0	62,8

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LANmark GG45 Snap-In Connector Cat 7A/8 2000MHz Screened Solid Wire

Characteristics

Construction characteristics	
Screen	Yes
Connector type	GG45/RJ45
Dimensional characteristics	
Depth	41.4 mm
Height	19.5 mm
Width	17 mm
Usage characteristics	
Range	LANmark-8
Field of application	Fixed installations
Category	Cat 7A/8

Documentation

Freetable LM8 conn_3.xls xls — 27 KB Download

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