

## LANmark-7A GG45 Connector

LANmark-7A GG45 12C Snap-In Connector Cat 7A 1000MHz Screened

Nexans ref.: N420.735

- RJ45-compatible Cat 7A/Cat 8 connector using Nexans unique GG45 interface
- Able to support applications which require up to 50 Gigabit Shannon capacity, including 25GBase-T and 40GBase-T
- Specified up to 2 GHz
- Cat7A / Class FA channel compliancy according to ISO11801 in combination with a CAT7A Cable
- Cat 8 / Class I / II channel compliancy according to ISO11801 in combination with a CAT 8 Cable
- Fully screened for Alien Crosstalk Immunity
- "2 in 1" Connector using 12 contacts to run 2 separate transmission modes
- Compatible with all Snap-In panels and outlets
- Supports 802.3at POE Plus applications (15 Watts per pair) and 802.3bt POE Plus Plus

### Description

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

- Combined with LANmark-7A Cable and Patch Cords, GG45 offers support for 25GBase-T.
- Combined with a 2GHz cable, GG45 offers support for 40GBase-T.

LANmark GG45 uses 12 contacts: 8 contacts for the 2000MHz transmission (GG-mode) and 4 additional contacts to ensure RJ45 compatibility (RJ Mode). Thanks to its 360° screening and a fully closed rear cover, the connector allows excellent coupling attenuation and ensures immunity from alien crosstalk and other external interference. The LANmark GG45 connector fits in all structural hardware designed for the Snap-In Connectors and can be used in all positions of a 4 connector twisted pair cabling channel (PP, CC, CP, TO).

### 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 draft
- 40GBase-T 40 Gigabit Ethernet IEEE 802.3bq draft
- 155 Mbit ATM
- 1.2 Gbit ATM
- POE Plus IEEE802.3at
- POE Plus IEEE802.3bt draft
- 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



## LANmark-7A

### Standards

**International** EN 50173-1;  
IEC 60603-7-5; IEEE 802.3af (PoE);  
IEEE 802.3at (PoE +); ISO/  
IEC 11801



Electro magnetic interference resistance  
Yes

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### Performance

The LANmark GG45 12C Snap-In Connector meets the stringent requirements of Cat 7A up to 1000MHz and Cat 8 up to 2000MHz. It utilises an inner metal cross to shield all 4 pairs from each other. This ensures that all internal and external crosstalk (NEXT/FEXT, Power Sum NEXT/FEXT and Alien Crosstalk) is drastically reduced and Signal to Noise Ratios are improved.

### Installation

The LANmark-7A GG45 12C Snap-In Connector makes use of Nexans wire organiser and is therefore very easy and fast to terminate. Using the Nexans patented Easy Termination Tool for GG45 the termination of GG45 is fool-proof and very reliable. A stranded version is available to allow the use of flexible stranded cable in cross connects or consolidation points.

- Fast termination with exclusive wire organizer
- Colour code : T568A & T568B
- 360° EMC protection
- Accepts solid wire from 22 to 24 AWG
- Stranded version available for consolidation point
- Snap-In format fits in all Nexans structural hardware
- 2 possibilities to terminate the drain wire : on the housing or on the rear cover
- Can be turned into keystone format using additional adapter
- Passes all tests for POE Plus & POE Plus Plus Requirements (IEC 60512-99-001 Ed.1)

### Guarantees

The LANmark GG45 12C Snap-In Connector is covered by the guarantee as described in "The General Terms and Conditions of Sales". When installed in combination with other LANmark-7A or LANmark-8 components, a 25 years channel warranty can be obtained, covering full Cat 7A/Class FA or Cat8/Class I/II compliance.



Electro magnetic interference resistance  
Yes

## LANmark-7A GG45 Connector

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### Characteristics

Construction characteristics	
Colour	Black
Screen	Yes
Connector type	RJ 45 shielded
Dimensional characteristics	
Height	19.5 mm
Width	17 mm
Depth	41.4 mm
Usage characteristics	
Electro magnetic interference resistance	Yes
Component function	Connector
Category	Cat. 7A
Range	LANmark-7A
Field of application	Fixed installations

### LANmark GG45

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FRE	IL		RL		NEXT		FEXT		TCL		TCTL		PSANEXT		PSAFEXT	
	in dB		in dB		in dB		in dB		in dB		in dB		in dB		in dB	
	Standard	Maximum	Standard	Minimum	Standard	Minimum	Standard	Minimum	Standard	Minimum	Standard	Minimum	Standard	Minimum	Standard	Minimum
1	0.02	0.02	30.0	30.0	75.0	75.0	75.0	72.0	50.0	50.0	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	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	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	43.9	50.0	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	42.0	50.0	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	38.2	48.2	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	32.0	42.0	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	28.0	38.0	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	24.2	34.2	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	22.0	32.0	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	18.5	28.5	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	16.0	26.0	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	12.4	22.4	47.7	79.9	47.7	73.2
1,00	0.63	0.63	10.0	12.0	51.9	51.9	43.3	48.9	8.0	14.0	8.0	18.0	43.3	75.5	43.3	68.8
1,20	0.95	0.79	12.0	12.0	21.8	36.0	21.5	33.0	12.4	12.4	16.4	16.4	73.9	73.9	66.4	67.2
1,50	1.16	1.02	12.0	12.0	17.9	34.0	19.6	31.0	10.5	10.5	14.5	14.5	72.0	72.0	64.5	65.3
1,60	1.23	1.10	12.0	12.0	16.8	34.0	19.0	31.0	9.9	9.9	13.9	13.9	71.4	71.4	63.9	64.7
1,80	1.36	1.25	12.0	12.0	14.8	34.0	18.0	31.0	8.9	8.9	12.9	12.9	70.4	70.4	62.9	63.7
2,00	1.50	1.39	12.0	12.0	12.9	34.0	17.1	31.0	8.0	8.0	12.0	12.0	69.5	69.5	62.0	62.8

LANmark-8 GG45