

LANmark-7A GG45 Connector

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

Contact

LAN Systems (Nexans Cabling Solutions)
Phone: +44 (0)1256 486640
ncs.uk@nexans.com

Nexans ref.: [N420.736](#)

- First RJ45-compatible Cat 7A connector using Nexans unique GG45 interface
- Able to support future 40Gigabit Ethernet application
- Able to provide Shannon Capacity of 50Gbps
- Full Class FA channel compliancy according to ISO11801 Amendment 1
- 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
- Accepts stranded wire from 24 to 26 AWG
- Supports POE Plus applications (15 Watts per pair)

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.

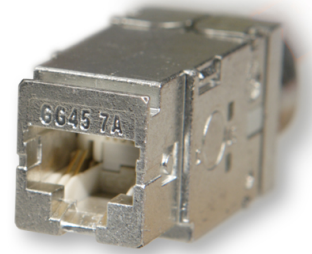
LANmark GG45 uses 12 contacts: 8 contacts for the 2000MHz transmission (GG-mode) and 4 additional contacts to ensure RJ45 compatibility (RJ Mode). Thanks to its 360° screening and a fully closed rear cover, the connector allows excellent coupling attenuation and ensures immunity from alien crosstalk 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

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.



LANmark-7A

STANDARDS

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

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

Generated 28/11/17 www.nexans.co.uk Page 1 / 3

LANmark-7A GG45 Connector

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

Contact

LAN Systems (Nexans Cabling Solutions)
Phone: +44 (0)1256 486640
ncs.uk@nexans.com

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.

LANmark-7A GG45 Connector

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

Contact

LAN Systems (Nexans Cabling Solutions)
Phone: +44 (0)1256 486640
ncs.uk@nexans.com

CHARACTERISTICS

Construction characteristics

| | |
|----------------|------------------------|
| Colour | Black |
| Screen | Yes |
| Connector type | RJ45 and Tool-less IDC |

Dimensional characteristics

| | |
|--------|---------|
| Height | 19.5 mm |
| Width | 17 mm |
| Depth | 41.4 mm |

Usage characteristics

| | |
|--------------------|------------|
| Component function | Connector |
| Category | Cat. 7A |
| Range | LANmark-7A |

LANMARK GG45

LANmark GG45

| Frequency (MHz) | IL | | RL | | NEXT | | FEXT | | TCL | | TCTL | | PSANEXT | | PSAFEXT | |
|-----------------|---------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
| | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB | in dB |
| Standard | Maximum | Minimum | 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 |
| 150 | 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 |
| 1,000 | 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 |
| 1,200 | 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 |
| 1,500 | 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 |
| 1,600 | 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 |
| 1,800 | 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 |
| 2,000 | 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

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