

#smartconnection

Copper solutions



LANmark™ ULTIM

Cabling solution for Smart Buildings

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Cabling solution for Smart Buildings

Smart buildings remain an effective solution to the energy efficiency demands of modern structures. The proliferation of IoT sensors and the surge in bandwidth and data rate requirements are direct outcomes of efforts to address energy challenges and the concept of smart buildings.

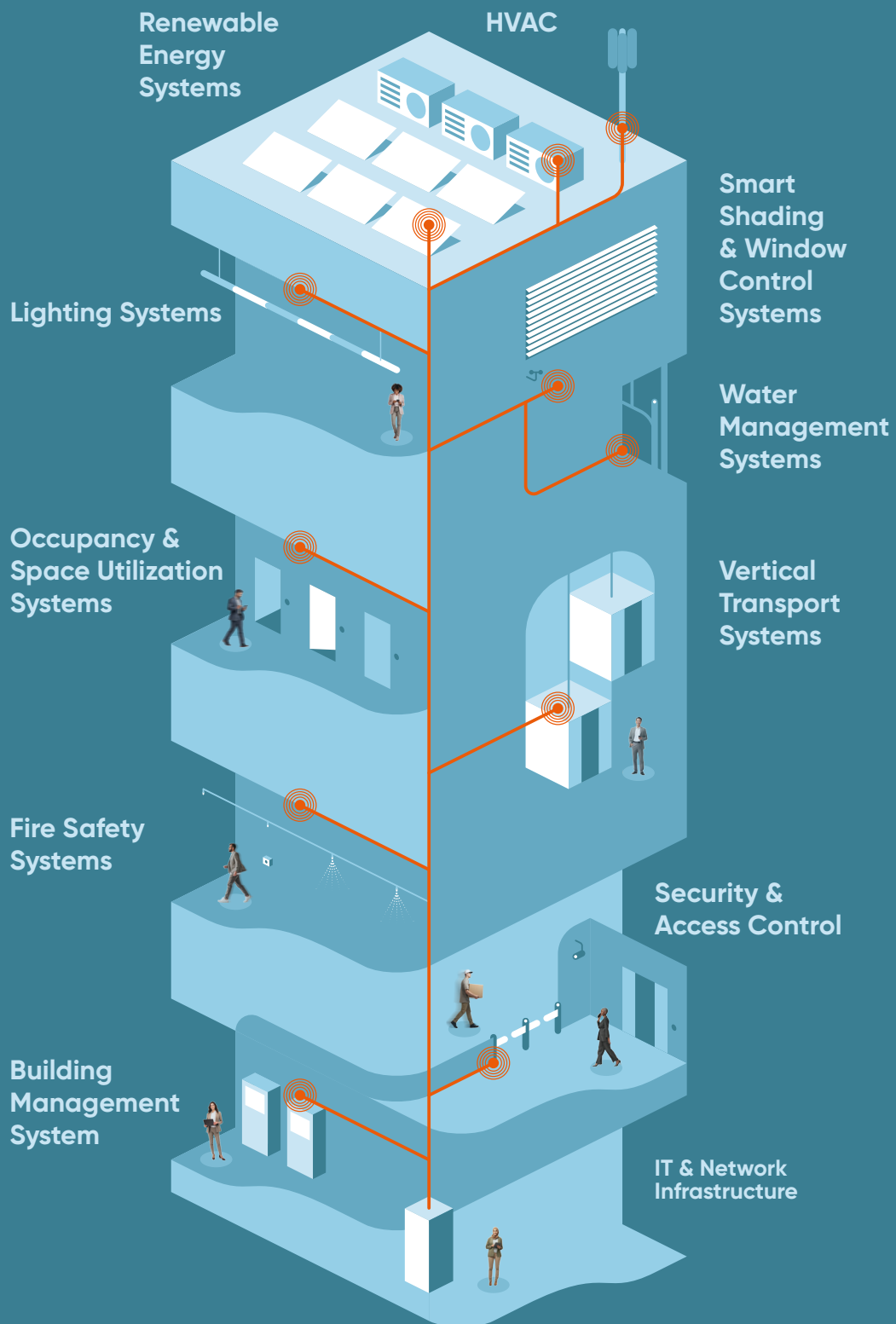
Interconnecting sensors and other IP-enabled elements are essential to fostering the principle of convergence within these intelligent buildings. Advanced, more “powerful” technologies enable solutions to ever-demanding requirements.

Power over Ethernet (PoE) protocols, for instance, have tripled the power requirements, which in turn has influenced how cabling infrastructures are designed. Similarly, wireless networks have experienced a major boost in speed and capacity with the introduction of WiFi 6, WiFi 6E, and even WiFi 7.

These technological evolutions demand a reliable, high-performance, and scalable cabling infrastructure. Additionally, considering environmental factors, cabling solutions have become a critical component in ensuring the efficient operation of smart buildings.

With many years of experience in structured cabling, Aginode recognises the importance of developing, producing, and providing solutions that meet these technological advancements while ensuring the long-term sustainability of smart buildings.

To meet ongoing technological challenges, Aginode is launching a new Category 6A solution: **LANmark ULTIM**, designed to guarantee quality and performance whilst accommodating the scalability needs of IP applications.



Performance

Performance has been a key focus in the development of the LANmark ULTIM solution, enabling support for applications such as WiFi 7, PoE++, and 5G.

For instance, our R&D teams have developed innovative techniques to enhance the transmission performance of the LANmark ULTIM Category 6A connector.

As a result, the ULTIM connector is one of the best-performing on the market, with NEXT margins exceeding 7dB when used with LANmark cables of Category 6A (or higher).

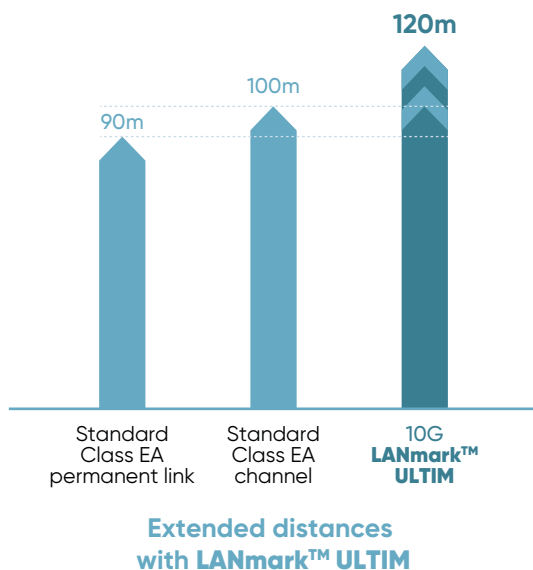
7dB

NEXT MARGINS

The LANmark ULTIM twisted-pair cable also provides optimal performance, boasting some of the highest shielding efficiency available.

A true breakthrough, the Extended Twisted Pair (ExTP) LANmark ULTIM cable surpasses normative limitations and offers 10Gbit transmission that could reach up to 120 metres.

Its unique design, combined with 22AWG copper conductors, makes it a one-of-a-kind cable on the market.



The LANmark ULTIM Cat 6A patch cord completes this solution, delivering a high-performance end-to-end connection.

With Aginode's ULTIM offering, the high levels of performance achieved by our channel links result in an exceptionally low Bit Error Rate (BER), ensuring reliable and high-performing data transmissions.



PoE Applications

To support the convergence of PoE applications, the LANmark ULTIM solution has been designed and developed to manage the thermal dissipation caused by PoE++ applications and their 90W power levels.

The LANmark ULTIM connector, for example, has been tested to handle 2A of current, meeting the requirements of the IEC 60512-99-002 standard.

The ExTP LANmark ULTIM cable, with its 22AWG copper conductors, can be installed in trunking, cable trays, or bundled in groups of 24 while remaining compliant with RP3 installation criteria (IEC 14763-2).

22AWG

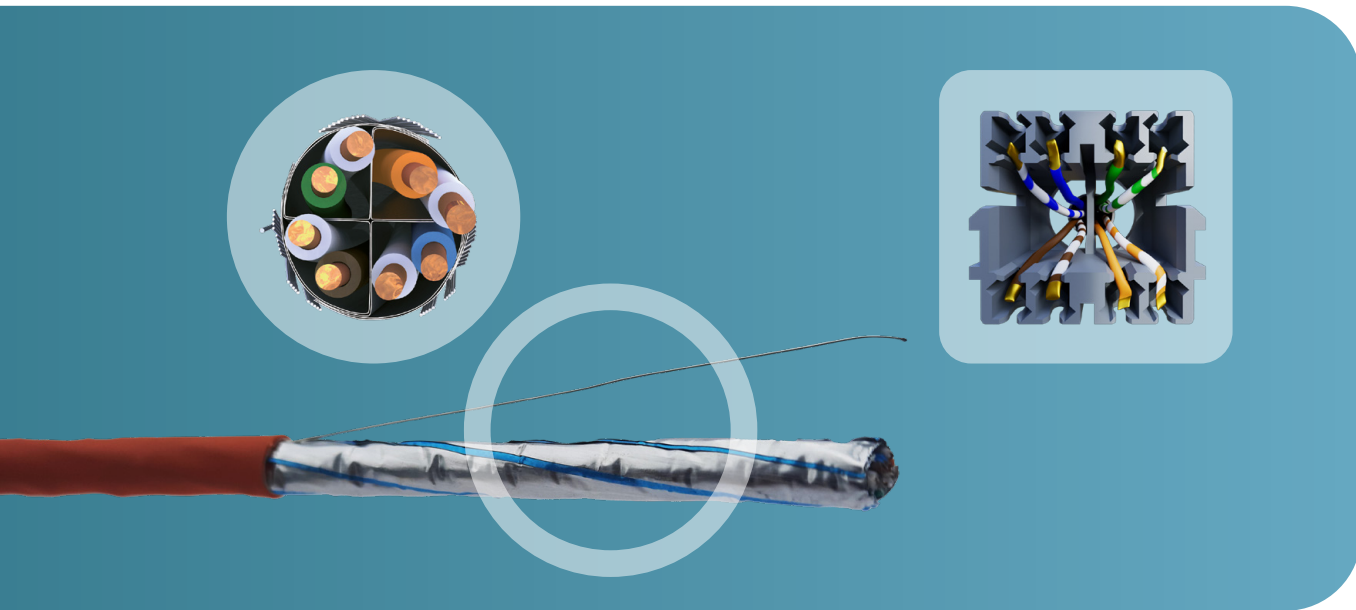
REDUCED HEAT DISSIPATION &
EXTENDED DISTANCE TRANSMISSION

Ease of Use

To simplify on-site installation and reduce connectorisation time, the LANmark ULTIM solution has been specifically designed to enable significant time savings.

The 100% toolless connector is compatible with a wide range of LANmark cables, from 26AWG to 22AWG, with both solid and stranded wires.

Additionally, the unique design of the LANmark ULTIM cable allows for considerable time savings during cable preparation (e.g., stripping).



Reliability

The LANmark ULTIM solution has been rigorously tested by our in-house teams to ensure full compatibility with all products in the LANmark range.

The connector has successfully passed a series of mechanical, electrical, and dimensional tests to guarantee reliable IP network performance under any circumstances.

Our internal qualification tests are rigorous and often exceed the limits imposed by standards, guaranteeing a reliable and high-performing solution. For example, we require at least 2,500 insertion/extraction cycles for our ULTIM cords and connectors. In addition, the LANmark ULTIM cable has undergone fire safety tests (CPR Dca & Cca levels per EN50575) to ensure the safety of people and property.

As a testament to its reliability, a 25 years full system warranty can be obtained for the LANmark ULTIM solution, including parts, installation, channel performance and application support, following the LANmark Warranty Programme.

Scalability

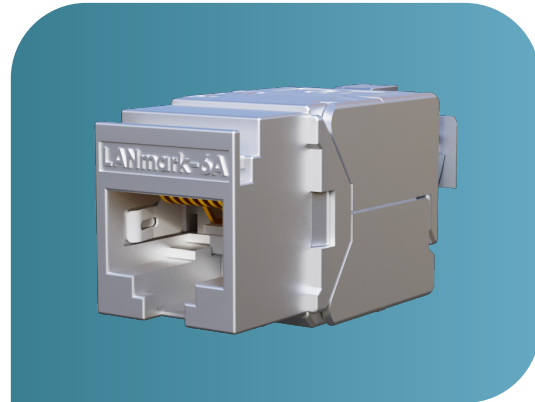
Extended Category 6A System Warranty

The bandwidth and throughput demands of smart buildings continue to grow. For this reason, LANmark ULTIM delivers transmission performance that exceeds standard requirements.

Guaranteed Extended Distance

The ULTIM connector, in conjunction with our ExTP cable, enables extended 10Gbit and PoE++ transmission distances beyond the limits of the standards, reaching up to 120 metres.

These extended transmission distances are backed by Aginode's Cat 6A Extended warranty, demonstrating the exceptional reliability of our solutions.



Class FA Scalability

Combining our LANmark ULTIM connector with LANmark-7A AWG22 cables prepares you for future data rates and needs.

By replacing the ULTIM connector with our GG45 connector, our warranty approach supports this evolution, upgrading from a 10Gbit system to a Class FA and 25Gbit* guaranteed solution.

*25Gbit for links under 26 meters

Sustainability

In line with our CSR policy and commitment to reducing environmental impact, Aginode has implemented measures to eliminate plastic from its packaging.

The LANmark ULTIM connector is packaged in 100% recyclable, plastic-free cardboard.

Environmental impact and eco-design are core principles at Aginode, and we are committed to improve the carbon and energy footprint of our solutions.



PEACE scoring system

To guide you in selecting the best solution for your needs, Aginode has introduced the PEACE scoring system.

This system rates our products based on five key criteria: Performance, Ease of use, Application, Compatibility (Electromagnetic Compatibility), and Environmental impact.

The new LANmark ULTIM solution has been rated with the following PEACE score:

Connector

POWER	★★★★★
EASE	★★★★★
APPLICATION	★★★★☆
COMPATIBILITY	★★★★★
ENVIRONMENT	★★★★☆

FxTP cable

POWER	★★★★★
EASE	★★★★★
APPLICATION	★★★★★
COMPATIBILITY	★★★★★
ENVIRONMENT	★★★★★

ExTP cable

POWER	★★★★★
EASE	★★★★★
APPLICATION	★★★★★
COMPATIBILITY	★★★★★
ENVIRONMENT	★★★★☆

Notes

This image shows a full page of blank, lined paper. It features approximately 20 horizontal blue lines spaced evenly across the page, typical of standard notebook paper. The lines are thin and light blue, set against a plain white background. There are no margins, text, or other markings on the page.

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