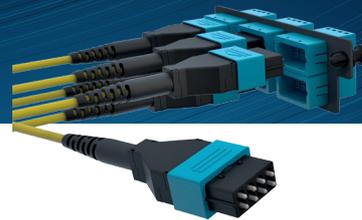
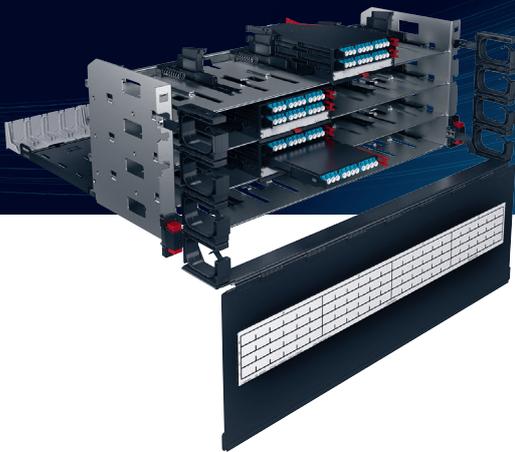


WHITE SPACE



# STRUCTURED CABLING SOLUTIONS



RELIABLE, EFFICIENT, SCALABLE **DATA CENTER SOLUTIONS**  
POWERED BY SPECIALIST BRANDS



# MEETING ALL YOUR DIGITAL INFRASTRUCTURE REQUIREMENTS!

## CHALLENGES IN STRUCTURED CABLING

A structured cabling system that has been designed and deployed effectively will include all the necessary cables and hardware to form a complete telecommunications infrastructure.

The type of structured cabling your data center needs will be determined by various factors, including the services you offer (bandwidth needs), your existing network equipment, and its layout. The top priorities for data centers are to ensure the network infrastructure is flexible, scalable, secure, and has the shortest possible business interruptions. Planning the network structure and selecting the right products to meet current and future requirements is a considerable challenge, and good quality structured cabling components are essential.

## STRUCTURED CABLING SOLUTIONS

Pre-assembled solutions have become the norm. Multi-fiber cables usually with 12 or 24 fibers end on 12-fiber MPO/MTP® connectors or LC or SC duplex connectors. Pre-terminated cables simplify and allow much faster installation and provisioning of necessary connections even during operation. When the new servers, switches, or other active equipment are installed or moved, the cables are already in place and ready for connection. Pre-assembled systems are not limited to fiber optic cables. Pre-assembled solutions for copper cables are also becoming increasingly popular as trunk-solutions with jacks on both ends or as multi-patch trunks for fast and easy connection.



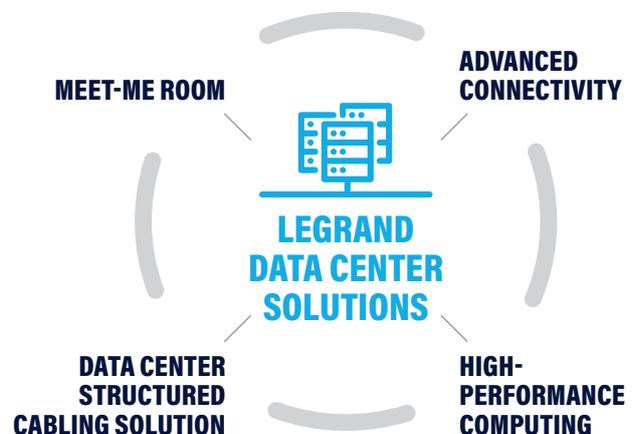


# WE HAVE SOLUTIONS FOR EVERY AREA AND WE ARE HAPPY TO SUPPORT YOU

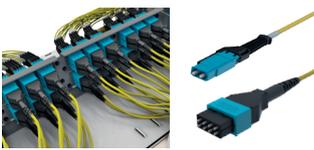
## DIFFERENT SOLUTIONS FOR DIFFERENT CABLING AREAS

Within the data centers, different areas have different requirements for density, performance, and technology. The increasing demand for bandwidth and the rapid changes in active equipment technology and interfaces are also setting new standards for structured cabling inside and outside the boundaries of the data center. The requirements for the main connection points of several data centres and the connection points to the outside world are completely different in many situations than in the classic white space of a data center.

As a specialist in data center solutions and structured cabling, we offer you a comprehensive portfolio of solutions that can meet all your digital infrastructure requirements. In order to make this clearer and more intuitive, this catalogue is divided into precisely these core areas - we will be happy to advise and support you in making the right product selection if required.



# A variety of needs covered!

		GLOBAL ADVANTAGES			PRODUCT CRITERIA	
		EASY & FAST INSTALLATION	MODULARITY & SCALABILITY	VERY HIGH FLEXIBILITY	PRE-TERMINATED & SPLICE SOLUTIONS	FIBER & COPPER SOLUTIONS
	<b>MEET-ME ROOM</b>	✓	✓		✓	
	<b>ADVANCED CONNECTIVITY</b>	✓	✓	✓		
	<b>DATA CENTER STRUCTURED CABLING SOLUTION</b>	✓	✓		✓	✓

PRODUCT CRITERIA					CUSTOMER ADVANTAGES	
PASSIVE FIBER SOLUTIONS WITH HIGHEST DENSITY	PASSIVE FIBER SOLUTIONS WITH HIGHEST QUALITY	SOLUTIONS READY FOR NEW DD TRANSCEIVER	SOLUTIONS READY FOR BANDWIDTH 400G+	CONNECTION TO PROVIDERS AND/OR OTHER BUILDINGS / DATA CENTERS	SERVICE & SUPPORT	25-YEAR WARRANTY FOR APPLICATION & PERFORMANCE
✓				✓	✓	✓
✓	✓	✓	✓		✓	✓
					✓	✓

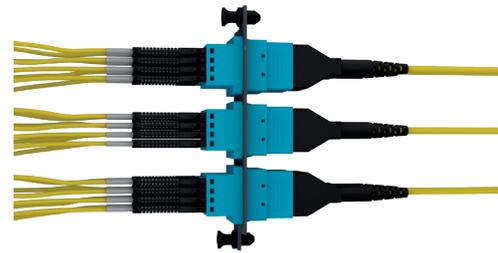
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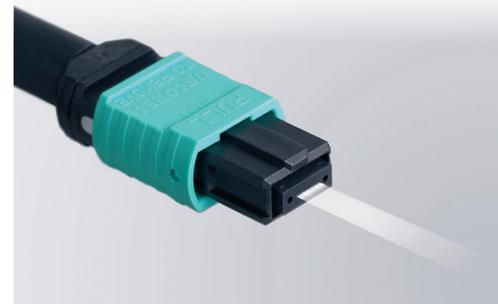
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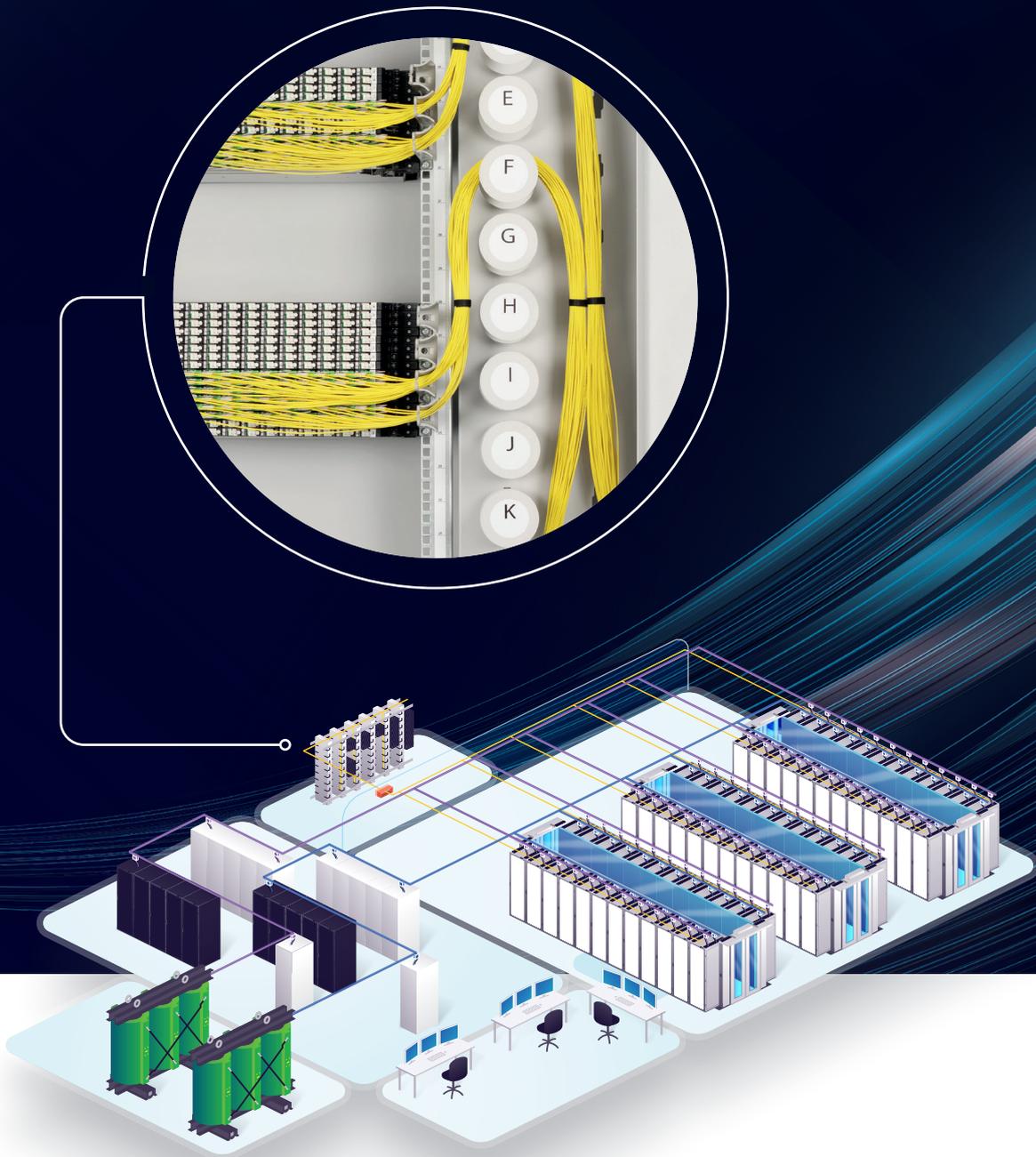
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# MEET-ME ROOM FIBER SOLUTIONS



An ever-increasing number of data centers are being used at ever-higher bandwidths to meet the growing demand for computing capacity. And whether it's a regional data center, a colocation data center or a hyperscaler, access to the outside world and therefore fiber connectivity is vital.

**A Meet-Me Room (MMR) is a secure place where customers can connect to one or more carriers or to several customer cages throughout a campus.** This area enables cable companies, ISPs, and other providers to cross-connect with tenants in the data center. An MMR contains cabinets and racks with carriers' hardware allowing quick and reliable data transfer. MMRs physically connect hundreds of different companies and ISPs located in the same facility. This peering process is what makes the internet exchange possible. The Meet-Me Room eliminates the round-trip traffic has to take and keeps the data inside the facility. Packets do not have to travel to the ISP's main network and back. Eliminating local loops makes data exchange more secure while also lowering costs.

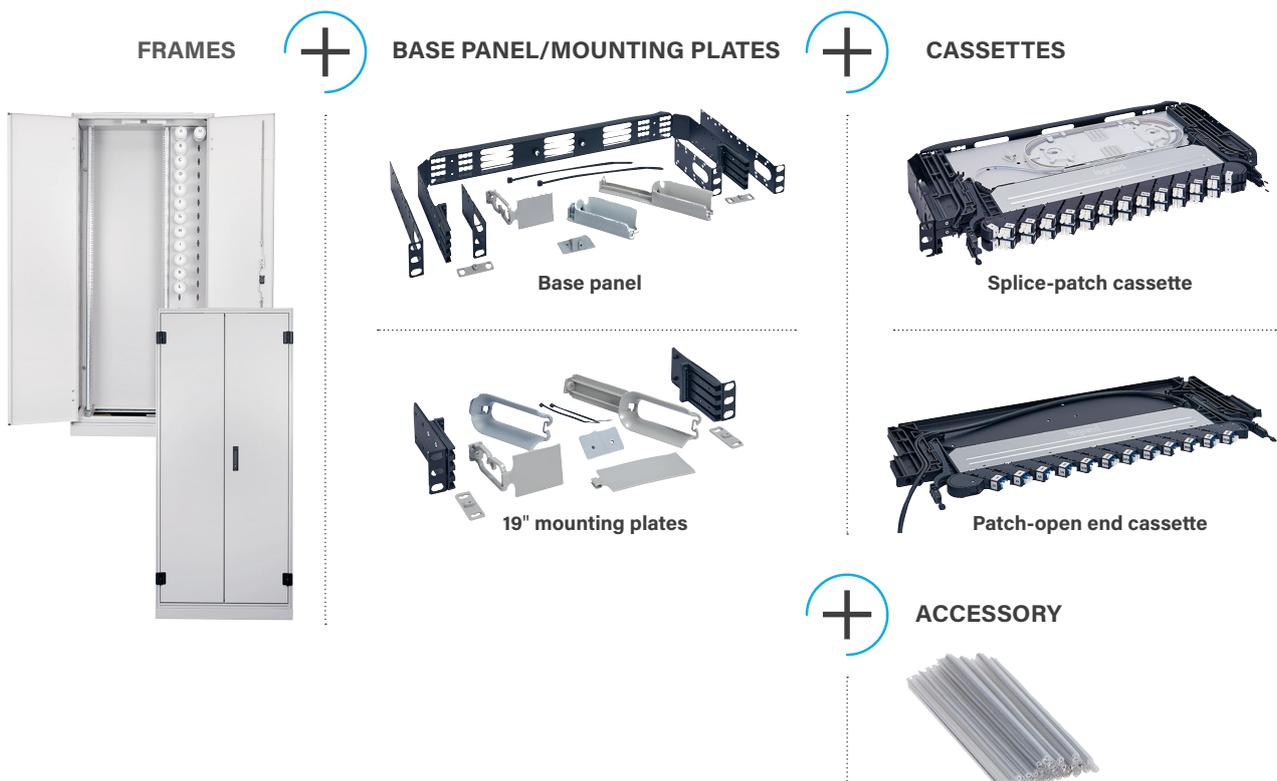
All colocation data centers house an MMR. Most data centers are carrier-neutral. Being carrier-neutral means tenants can choose from a wide selection of network providers. When there are more carriers, customers are more likely to contract with that data center. The main reason is that customers can improve flexibility, redundancy, and optimize their connection by having multiple choices for providers.

The benefits of Meet-Me Rooms include:

- **Reduced latency:** High-bandwidth, direct connection decreases the number of network hops to a minimum. By eliminating network hops, latency is reduced substantially.
- **Reduced cost:** By connecting directly through a Meet-Me Room, carriers bypass local loop charges. With many carriers in one place, customers may find more competitive rates.
- **Quick expansion:** MMRs are an excellent method to provide more fiber connection options for tenants. Carrier-neutral data centers can bring more carriers and expand their offering.

## LEGRAND'S RESPONSE

The Legrand LCS<sup>3</sup> Meet-Me Room concept is designed to provide high quality, high density, and high performance at all levels.





# LCS<sup>3</sup> Meet-Me Room solutions

The Legrand LCS<sup>3</sup> Meet-Me Room portfolio offers a fully scalable solution that seamlessly responds to both the high fiber numbers used in this type of environment and the high quality and reliability that comes with it.



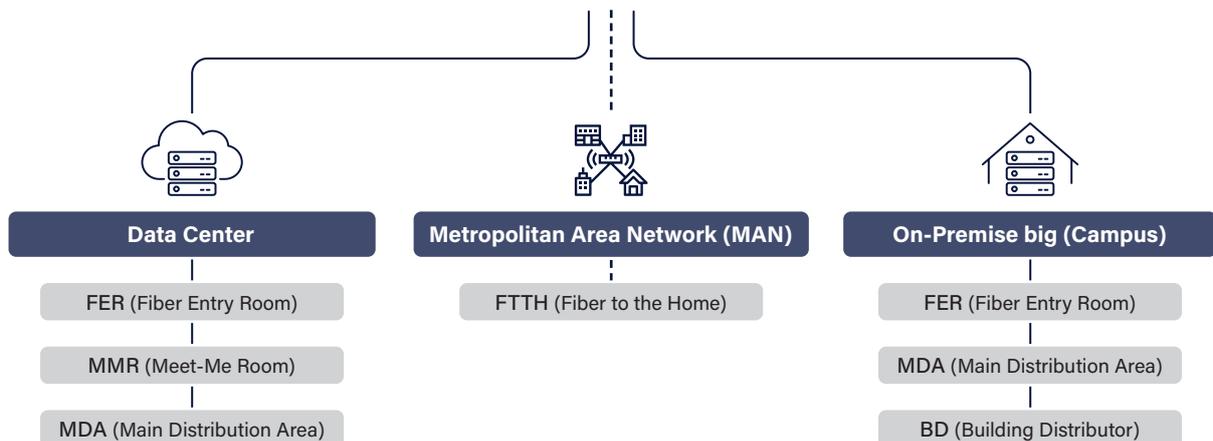
# MEET-ME ROOM SOLUTIONS COMBINING HIGH QUALITY AND ASTUTENESS

- Products are selected and tested to exceed standards' specifications.
- The LCS<sup>3</sup> Meet-Me Room fiber components ensure high levels of quality and performance at all times.



- The innovative concept offers the possibility of adding extra functionalities where necessary, such as WDM Mux/Dmux or PON integration. With this, the concept also offers excellent application possibilities in so called Telco environments or for example on-premise connectivity.

## TYPICAL DEPLOYMENT OPTIONS LEGRAND MEET-ME ROOM PORTFOLIO



# MEET-ME ROOM SOLUTIONS

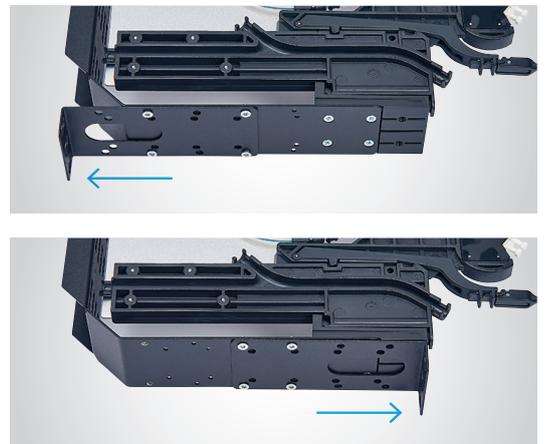
## EASE OF WORK AT ALL LEVELS

A good network does not only stand or fall on the quality of its connectivity solution; all preconditions must also be fulfilled correctly.

### ■ Simple installation

- The LCS<sup>3</sup> Meet-Me Room solutions have various mounting options, depending on the installation type (on a wall, uprights, etc.).
- All components can be assembled and disassembled simply and quickly thanks to adjustable uprights, stubs that can be positioned according to your needs...

Adjustable positioning of the 19" mounting brackets, enabling depth adjustment



### ■ Simple maintenance

- A unique advantage of the ODF patch panels is the ability to use them fully front-loaded. Patch cabling and incoming cabling are fed in from the front, separated from each other, so that moves, adds and changes are easy to perform.
- The ODF patch panels are equipped with a slide-forward function, which makes the patch surface easily accessible, even in case of full patching. Each cassette can be pulled independently 40mm to the front in order to facilitate adds, moves or changes.

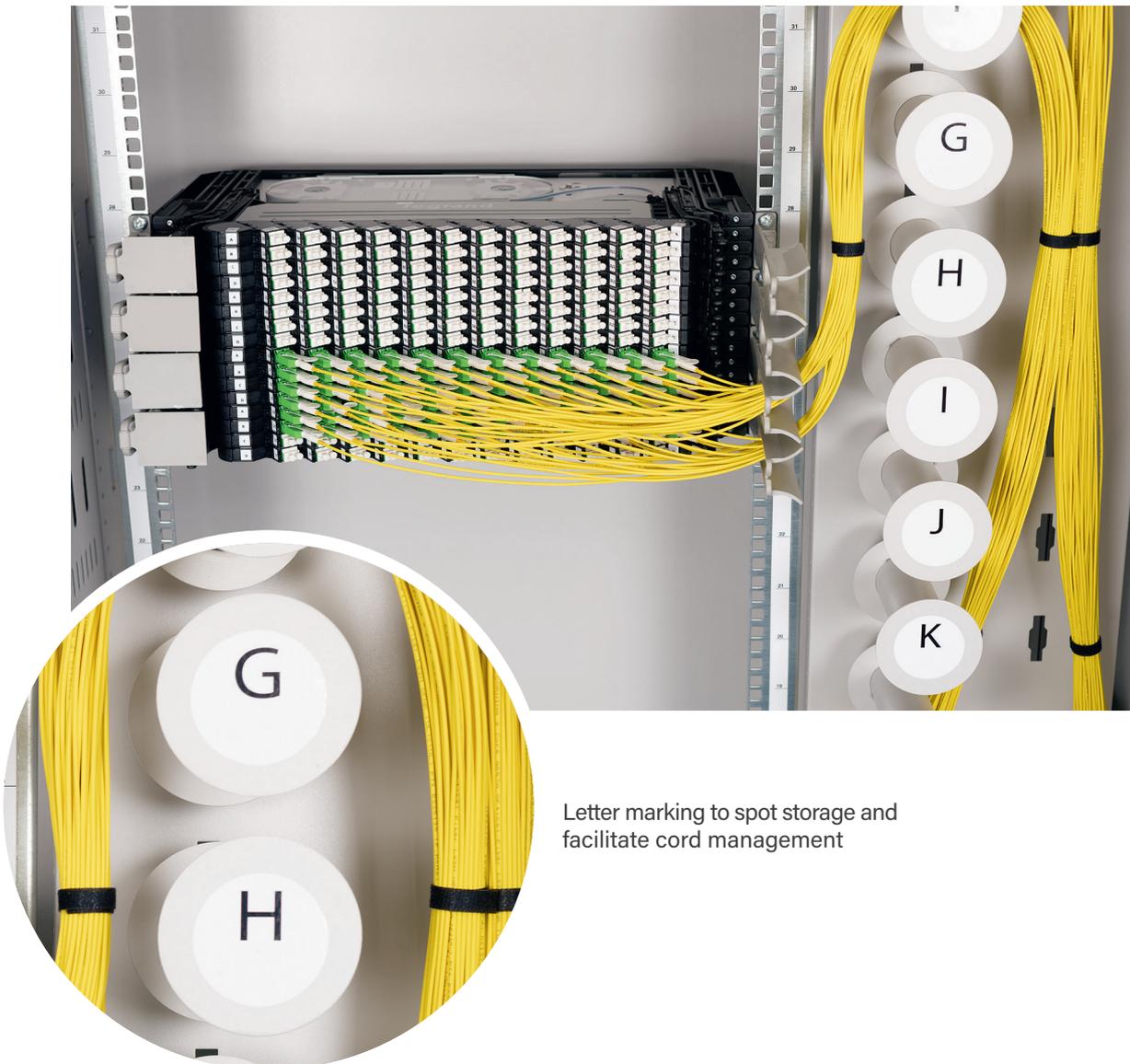


### FULLY PRE-ASSEMBLED SOLUTION & EASY SCALABILITY

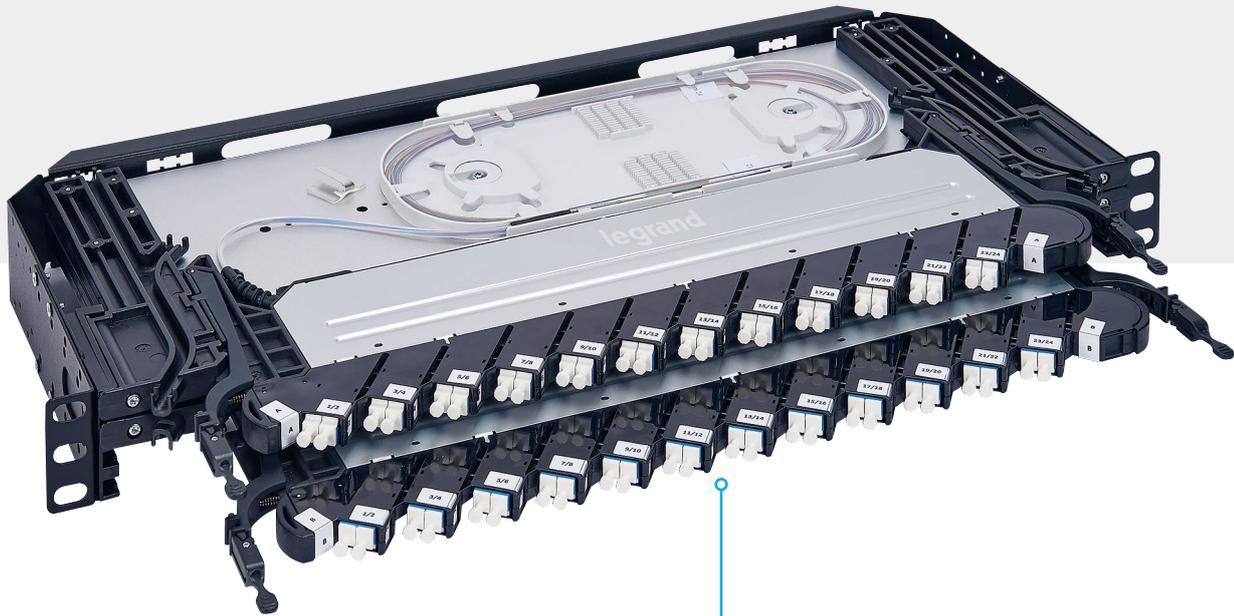
Future-proof solutions based on a modular platform that is easy to upgrade with new functionalities by extending the installation with extra cassettes.

■ **Optimized and simplified patching**

A good network does not only stand or fall with a good connectivity solution, also all preconditions have to be fulfilled correctly. The Legrand Meet-Me Room portfolio therefore consists of an Optical Distribution Frame (ODF) with optimized patch management, especially designed for high density applications. Even with more than 4,000 patches in an ODF frame, this allows the patches to be ranked in a structured way.

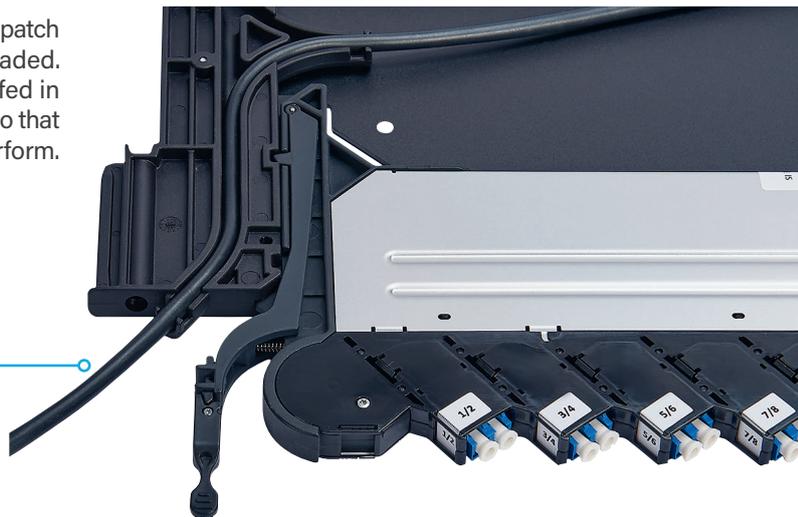


Letter marking to spot storage and facilitate cord management



In order to simplify patching, the Meet-Me Room ODF patch panels are equipped with a slide-forward function, which makes the patch surface easily accessible, even in case of full patching.

A unique advantage of the Meet-Me Room patch panel is the ability to use it fully front-loaded. Patch cabling and incoming cabling are fed in from the front, separated from each other, so that moves, adds and changes are easy to perform.



# Legrand cabling system, LCS<sup>3</sup> Meet-Me Room solutions

## cassettes, frames and accessory



C49001 (equipped with cassettes)



C42002

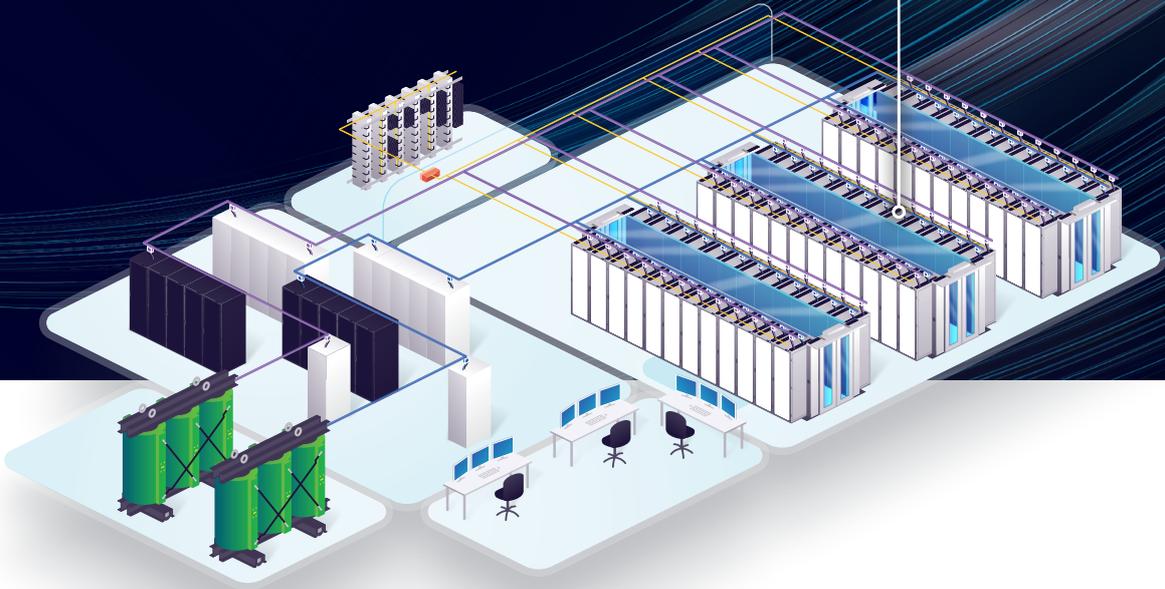


C44001

Can be used in combination with other LCS<sup>3</sup> solutions to create an optimal connectivity solution for the entire data center

Pack	Cat.Nos	ODF splice-patch cassettes	ODF frames	Accessory
		<p>Designed for fast and easy splicing of large amounts of fibers Fully scalable: up to four cassettes on 1U allow for finishing up to 96 fibers, including Air Blown Fibers Completely preloaded delivery including adapters, pigtails, splice trays, heat shrink splice protectors and mounting materials</p> <p><b>24 fibers - single-mode - LC/PC cassettes</b>                      1 C40001 Left splice-patch cassette                      1 C40002 Right splice-patch cassette</p> <p><b>24 fibers - single-mode - LC/APC cassettes</b>                      1 C40003 Left splice-patch cassette                      1 C40004 Right splice-patch cassette</p> <p><b>Empty base panel</b>                      1 C49001 Empty base panel (1U) for ODF splice-patch cassettes</p>	<p>Dimensions: H 2050 x W 900 x D 400 mm 42U Completely closed: the most critical connections in the data center are well protected against external influences Delivered fully pre-assembled including side panels, back panel, doors, roof and integrated cable management</p> <p>1 C44001 Frame with cable management on the left                      1 C44002 Frame with cable management on the right</p>	<p>25 C49004 Heat shrink splice protectors 40mm</p>
		<p><b>ODF patch-open end cassettes</b>                      Designed for situations where a distribution box or outside-plant splice box is used for splicing                      Cable diameter 4.5 mm: can be used outside plant in combination with a (multi)duct                      Cassettes equipped with an open-end cable length 15 m (other lengths available on request)</p> <p><b>24 fibers - single-mode - LC/PC cassettes</b>                      1 C42001 Left patch-open end cassette                      1 C42002 Right patch-open end cassette</p> <p><b>24 fibers - single-mode - LC/APC cassettes</b>                      1 C42003 Left patch-open end cassette                      1 C42004 Right patch-open end cassette</p> <p><b>Mounting plates</b>                      1 C49002 19" mounting plates for ODF patch-open end cassettes</p>		

# ADVANCED CONNECTIVITY FIBER SOLUTION

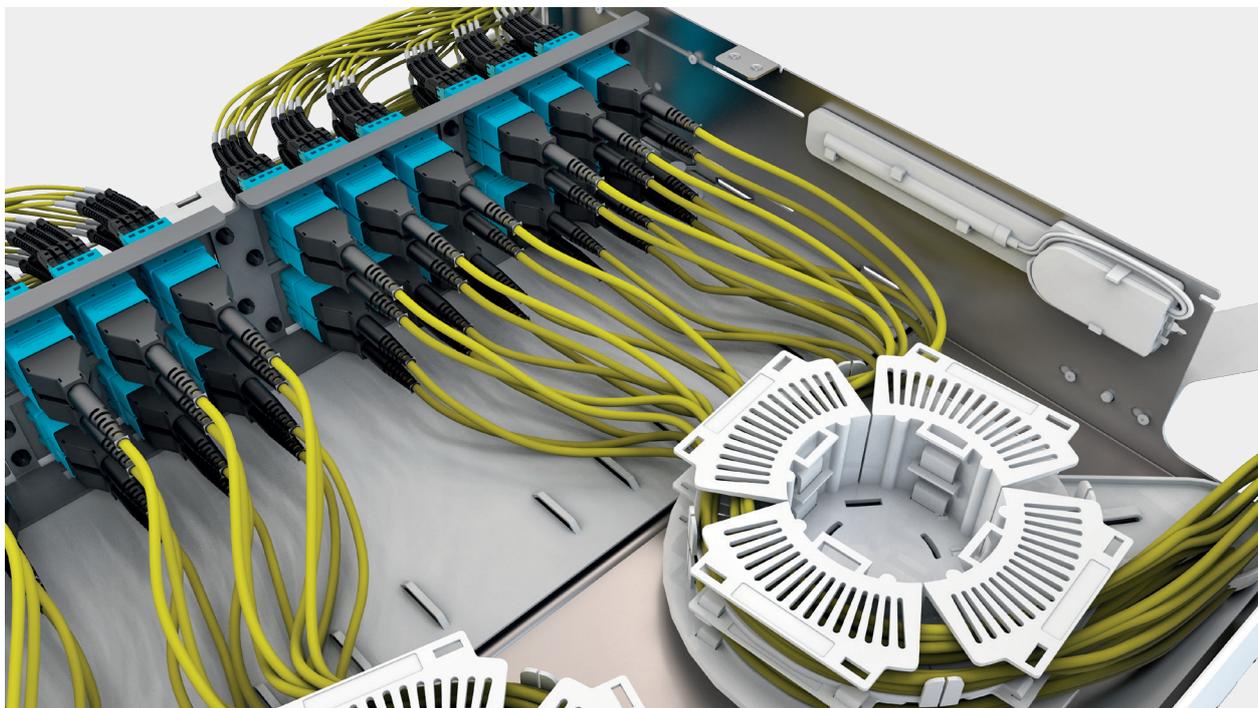


**Bandwidths in data centres are constantly increasing. The technology for transmitting data rates of up to 400 GBit/s and beyond is already in the starting blocks. Parallel to the data rates, the requirements for cabling solutions are also increasing. Those who want to make the fiber optic network in their data centre and fiber optic backbone future-proof, scalable, and at the same time application-neutral should rely on future-oriented technology.**

With increasing data rates, the fiber optic cabling systems currently available are reaching their limits. The attenuation budgets to be met as well as flexibility to adapt to new active components and cabling structures are obstacles that cannot be overcome. In addition, these systems are incredibly complicated due to the variety of available components and polarities.

## LEGRAND'S RESPONSE

The *acclAIM* cabling system closes exactly this gap and at the same time increases link performance many times over.





# acclAIM fiber solutions

acclAIM redefines connectivity by replacing pre-terminated cassette-based solutions with direct connections eliminating components, process, and cost. acclAIM delivers the only connectivity on the market with a near lossless link, almost unlimited scalability, and no gender considerations. The Direct Mating Breakout and Application Defined Polarity vastly improves density and flexibility and enables Sustainable Migration improving system life-cycle tremendously.



# acclAIM

## REDEFINED CONNECTIVITY

The acclAIM™ Alignment Independent Multifiber (AIM) fiber interconnect system is designed to mate multiples of 8-fiber trunk cable connectors directly to arrays of twin-fiber patch cord connectors using a “conversion adapter”.

### ■ Minimize loss - maximize optical headroom

- Lowest loss pre-term solution: insertion loss near zero
- Minimize or eliminate the need for splicing
- Maximize optical headroom to overcome barriers to performance

### ■ Design Smarter - Longer Lifecycle

Simplicity of design combined with application-defined on-site polarity adjustment, fewer components, and near-lossless performance enables acclAIM to provide a multi-generational lifecycle with a single installation of a sustainable building asset for decades to come

### ■ Ultra-High Density Plus (UHD+)

Make the most of each rack unit (RU) with UHD+ offering up to 192 fibers per RU (33% more than High Density)

### ■ Simplify connectivity

- No gender considerations - no pins, just direct connections
- Direct mating breakout - acclAIM connectors mate directly to an array of 2-fiber mdc duplex patch cords
- Application defined polarity - polarity can be adapted to nearly any link configuration; preplanned, on-site, or on the fly with no options to determine when ordering or designing
- Improved accessibility - with the increased density of each connector and a smaller footprint enabled by acclAIM, there is more room to work on each panel

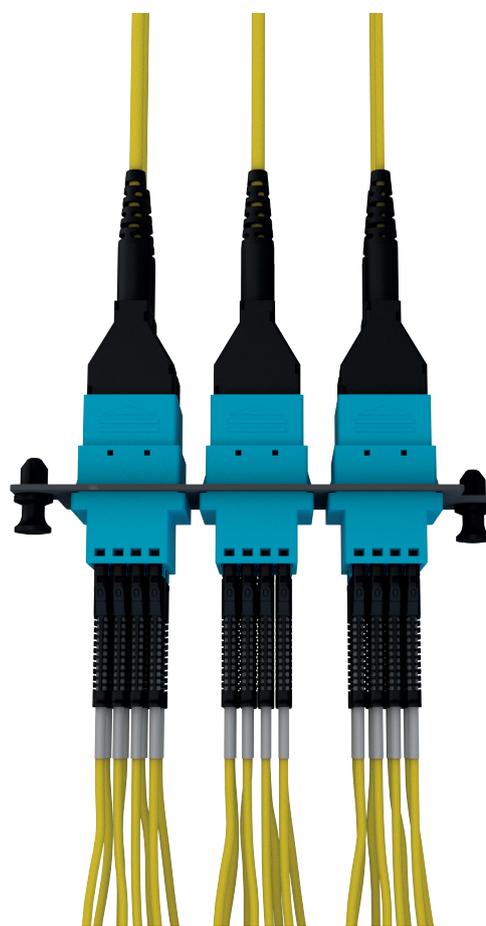
### ■ Approaching infinite scalability

Based on the simplified design, unparalleled performance, and architectural flexibility, acclAIM has an almost limitless migration path

### ■ Go live faster

Easy to stock and short lead times for conversion adapters enable rapid or emergency deployment

# CUT COST. CUT COMPLEXITY. CUT CASSETTES.

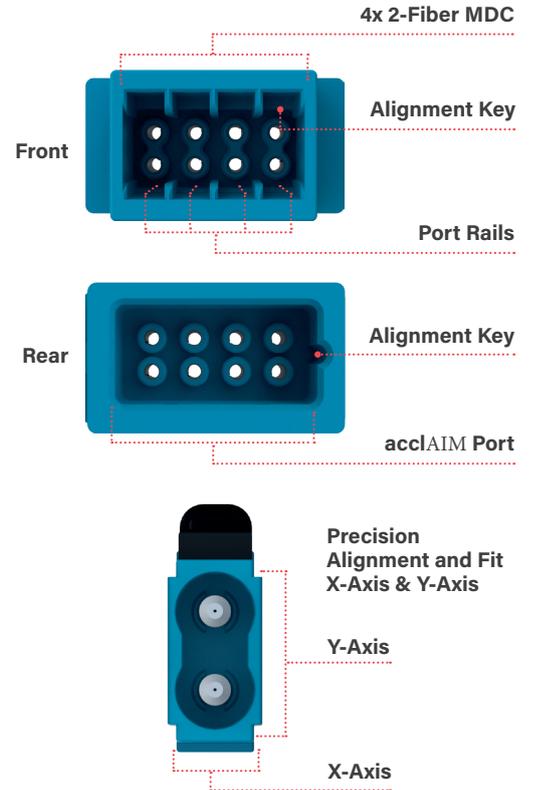
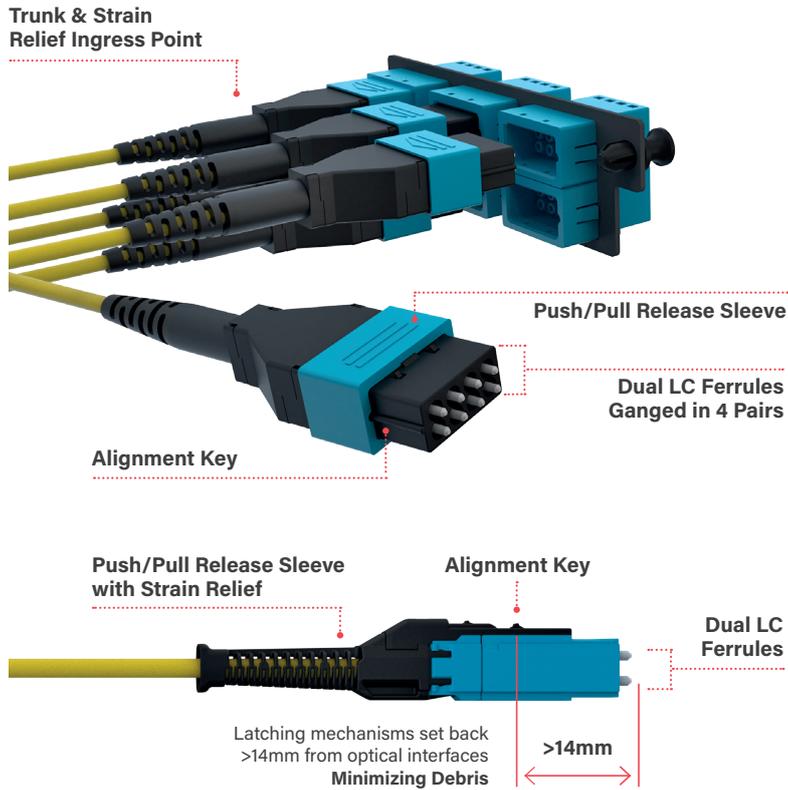


### REDUCE LABOR - LOWER COST

- 40% faster install
- 60% faster removal
- Single link testing after mating
- Faster moves, adds & changes

# acclAIM

## SOLUTION COMPONENTS



# acclAIM CONNECTOR COMPARISON

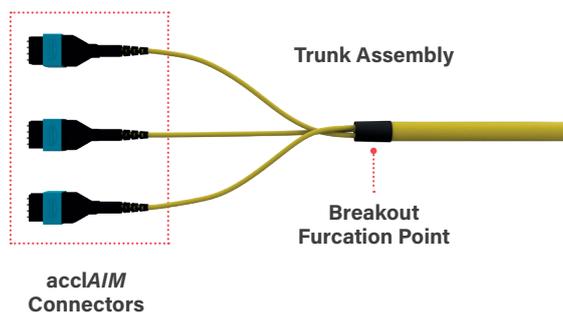
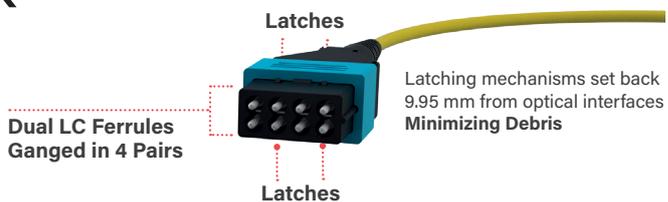
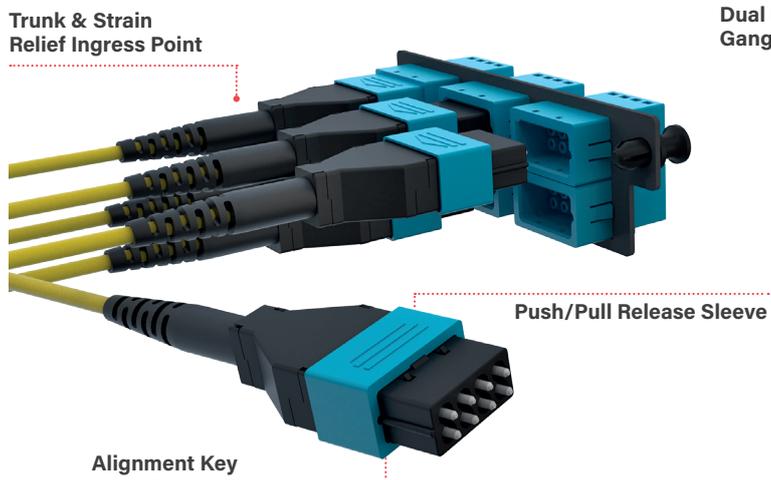
acclAIM utilizes a direct mating breakout - eliminating the need for a cassette to breakout multi-fiber cable.

Current Cassette Based Architecture		acclAIM Based Architecture	
MPO/MTP	Duplex LC	MDC (x4)	acclAIM
<p>SIZE COMPARISON DIME MEASUREMENT: 0.705 in / 17.91 mm</p>			

# acclAIM SIMPLIFIED INTERFACE

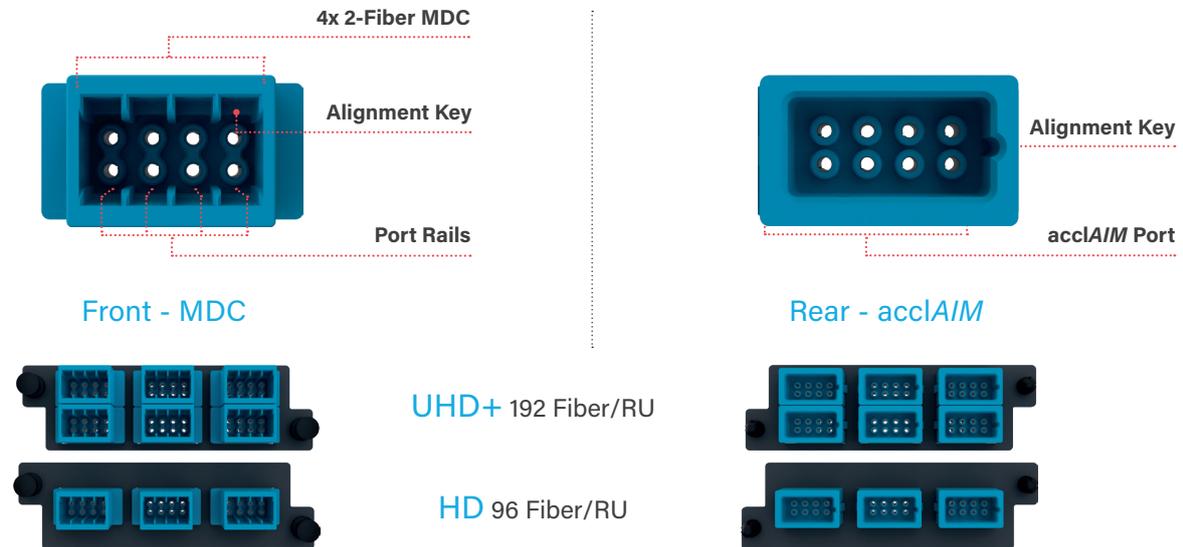
Current Cassette Based Architecture	acclAIM Based Architecture
<p>4x12F MTP/MPO Connectors (48F)</p> <p>Transition/breakout from high density MTP connectors to individual fiber connectors (commonly required to connect to electronics)</p> <p>12x Duplex LC Connectors (24F)</p>	<p>6x acclAIM Octal Ferrule Connectors (48F)</p> <p>Utilizes Direct Mating ferrule to ferrule. Simplifying Connectivity</p> <p>24x 2-Fiber MDC Connectors (48F)</p>
	<p>6 connectors (2 layers of 3)</p>

# acclAIM CONNECTOR & TRUNK



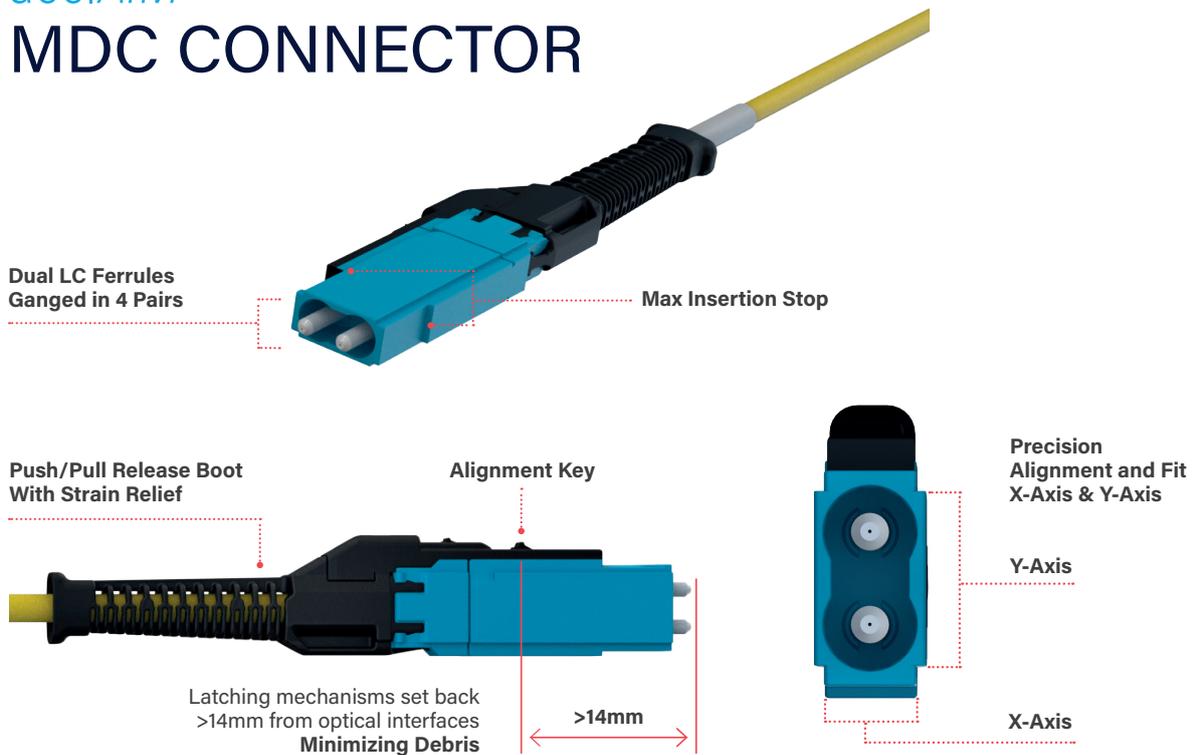
acclA/M

# CONVERSION ADAPTER PANEL - HDFP



acclA/M

# MDC CONNECTOR



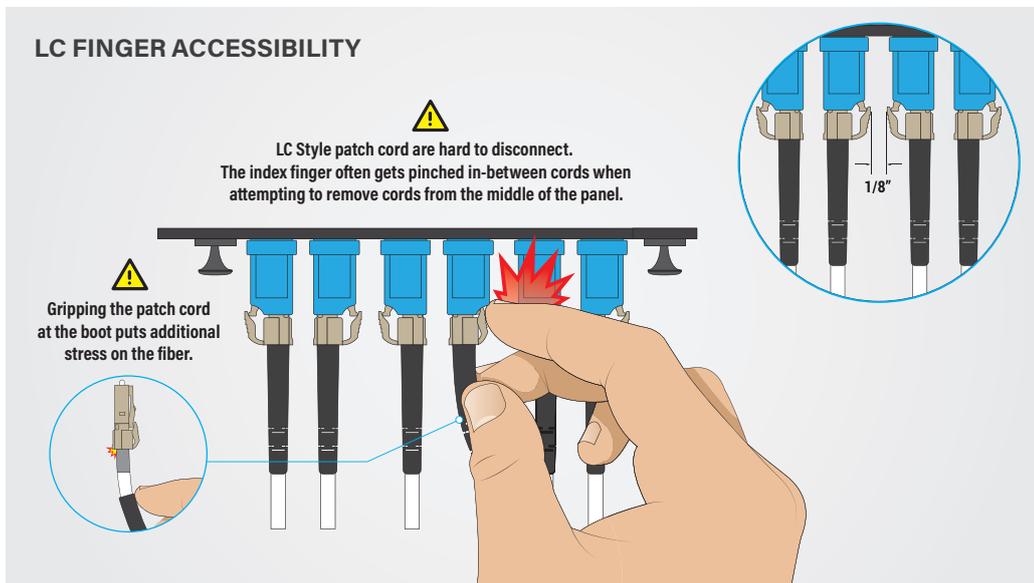
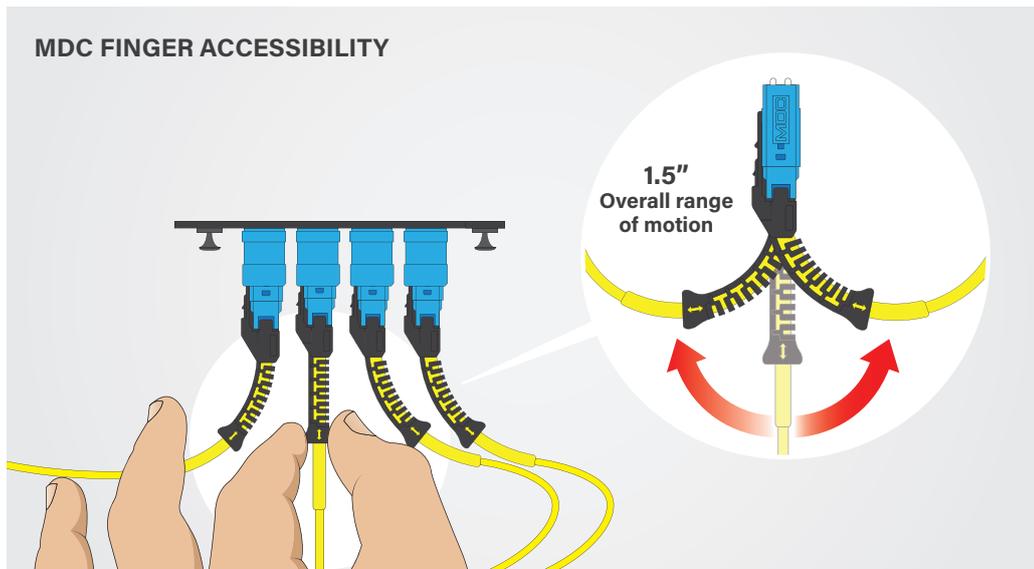
# acclAIM

## ERGONOMICS ADVANTAGE

- Easy-grip and release connectors.
- The acclAIM solution delivers more hand/finger clearance than LC Patching – acclAIM with MDC offers 1.5 in of space vs. 1/8 in of space with LC.
- With LC connectors, technicians must reach almost an inch further into the cables to engage the latch vs. the acclAIM solution with MDC connectors.
- Less force required for insertion and removal than current connectivity options.

**>40%**  
Faster Patch  
Cable Install

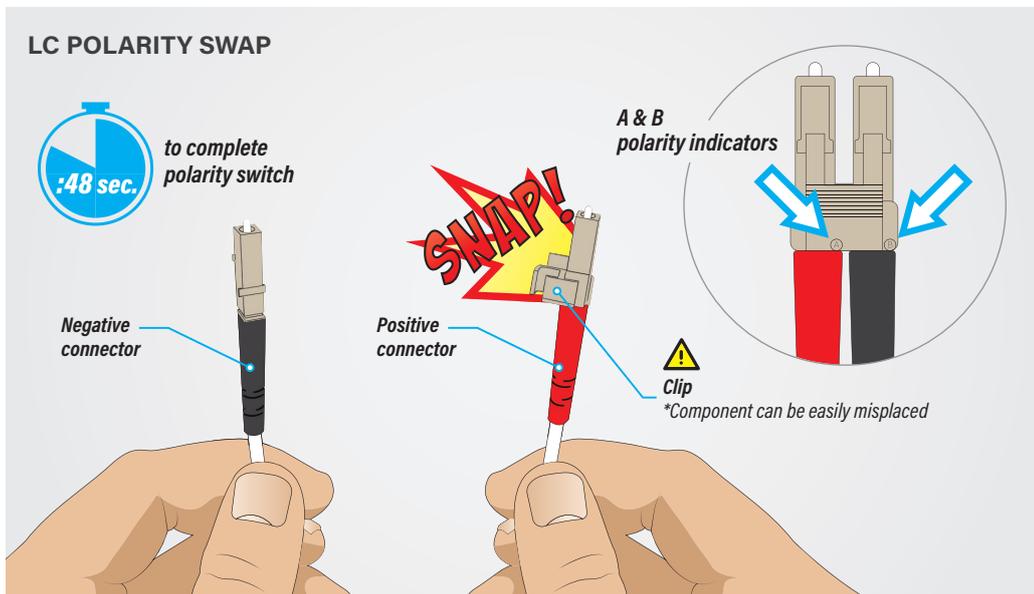
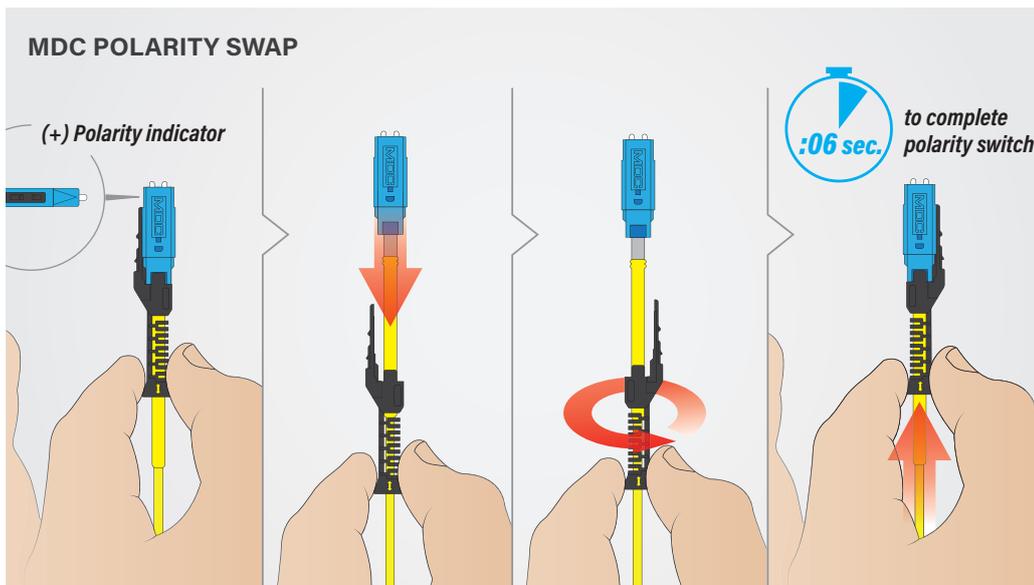
**>60%**  
Faster Patch  
Cable Removal



## acclAIM

# INSTALL, MAINTENANCE & TESTING ADVANTAGE

- Faster cable installs and removal.
- acclAIM polarity is application-defined and can be adapted to nearly any link configuration; pre-planned, on-site, or on the fly vs. cassettes which must be pre-planned or reordered to change polarity.
- Patch cord polarity switching with acclAIM takes 6 seconds vs. LC Duplex which takes 48 with the potential of lost components - acclAIM solution with MDC patch cords saves 42 seconds on average vs. LC duplex and days faster than reordering a cassette to correct polarity.
- No cassette to inspect before mating.
- No front / rear connector troubleshooting – one connection point.
- Adapters do not become obsolete if new grades of fiber are developed, can be reused indefinitely, and do not require delicate handling.
- Testing is completed with a single link after mating vs. testing both sides of a cassette, reducing significant time.



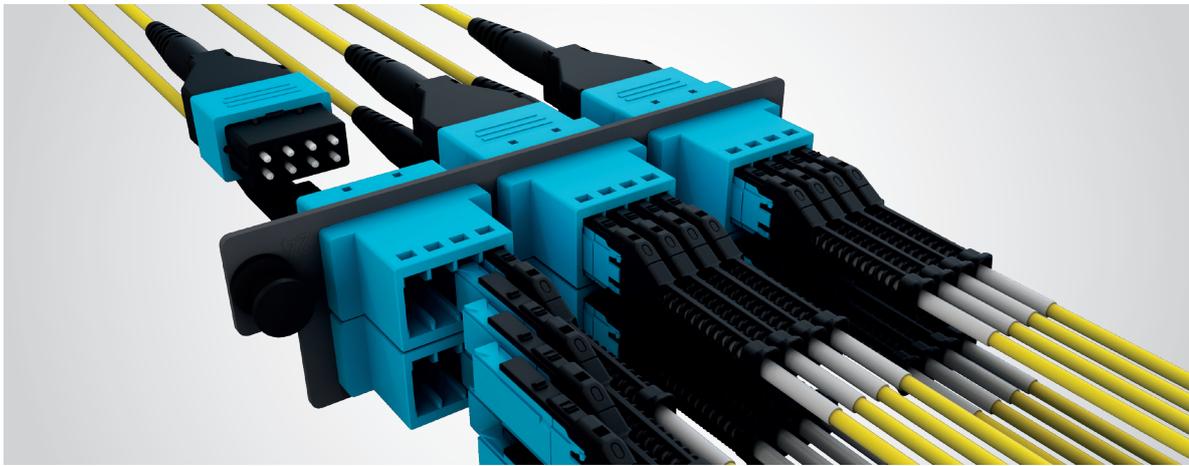
acclAIM

# PERFORMANCE ADVANTAGE

## ■ Core level performance - maximizing optical headroom

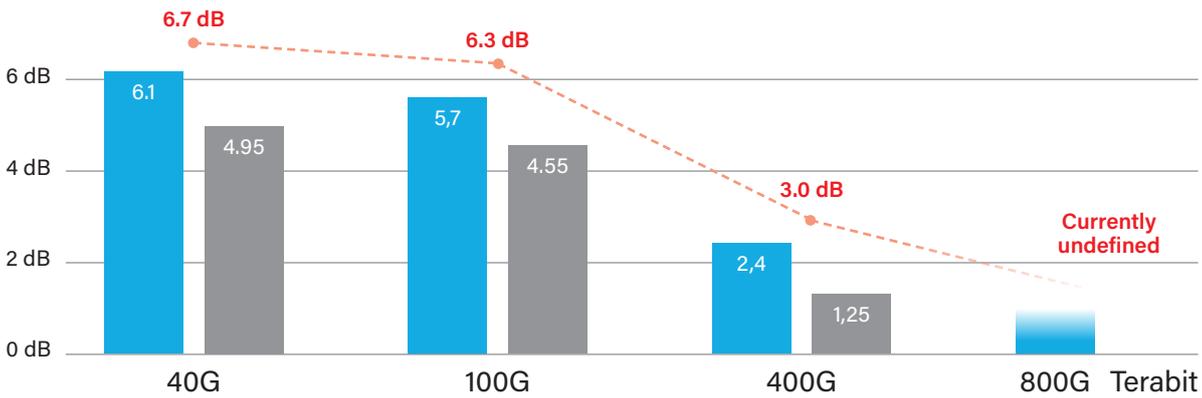
There is an inevitable correlation between maximizing optical performance margins (optical headroom) and optimizing overall costs from both an operational and procurement perspective\*. acclAIM delivers dramatically more optical headroom than any other pre-terminated solution!

\* Source: the "Quantum" Effect Paper, more information on [multilaneinc.com](http://multilaneinc.com)



## ■ Performance advantage

Maximum allowable application attenuation

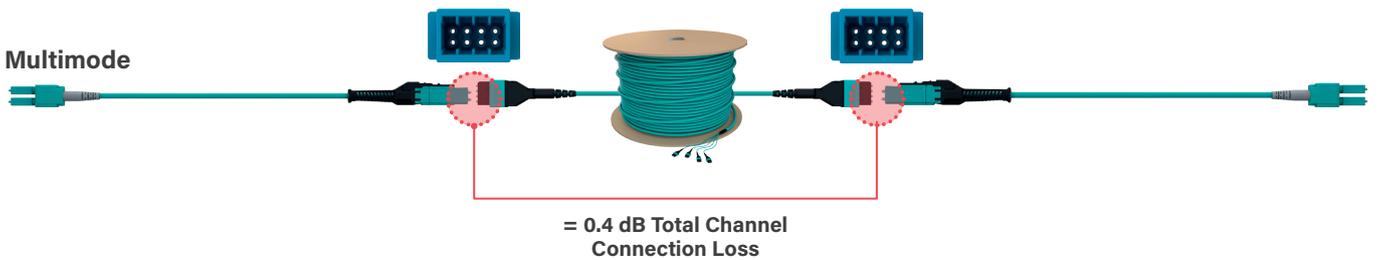
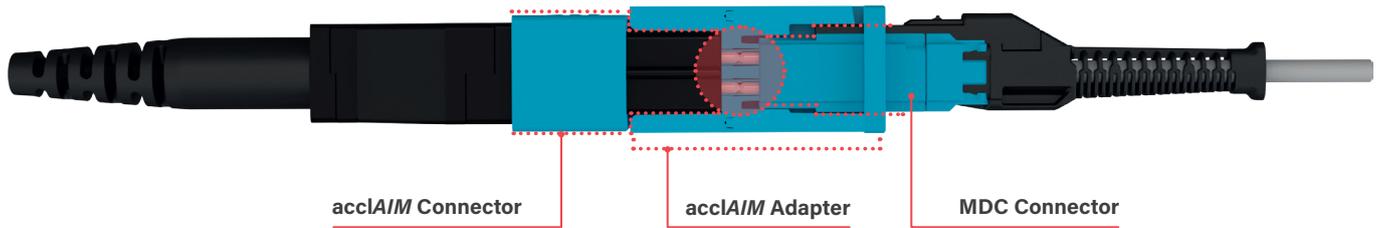


- acclAIM available optical headroom
- Cassette and MPO ultra-low loss solution available optical headroom
- - Maximum allowable application attenuation

Single-mode total channel connection loss	
acclAIM	0.6 db
Cassette and MPO ultra-low loss solution	1.75 db

	Industry standard pre-terminated solution	acclAIM core solution improvement
Bit error rate (errors over time)	2.35E-07	> 3.6 x
Total link loss (dB)	7.20 dB	> 1.0 dB
FEC corrections (codewords)	5.93E+05	> 1.77 x

■ Core level performance



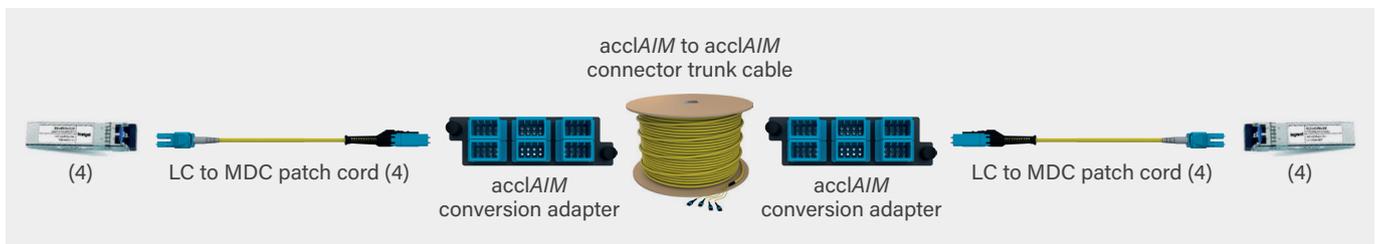
# acclAIM

## REIMAGINING FIBER CABLING

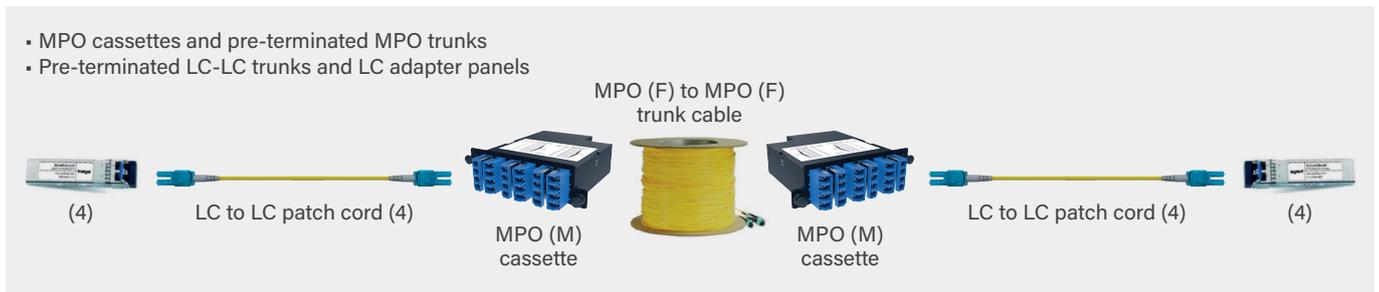
Cassette-based forms of cable management within mission-critical spaces all pose varying challenges around polarity, optical loss, rapid deployment, and costs. Without a compelling alternative solution, these issues have often been viewed as an accepted frustration. Here is where the Legrand team swans opportunity to make life better and more lucrative for critical infrastructure operators.

Legrand's acclAIM redefines connectivity by replacing pre-terminated cassette-based cabling solutions with direct connections, eliminating costly components and time-consuming processes. A first-of-kind, acclAIM is the only fiber cabling connectivity solution on the market that offers the lowest optical loss and a significantly simplified installation and configuration process (the product design requires end-users to order only three parts) that results in virtually unlimited scalability for critical infrastructure operators. Simply put, Legrand's acclAIM cabling solution takes the antiquated, inefficient, and messy way of connecting or mating cables within the data center and other -critical environments, and reimagining that connection to be simpler, smaller, more intuitive, better performing and easier to use. Everything is possible, you can build every needed network architecture and connect all your equipment by just using acclAIM.

### STANDARD LINK CONFIGURATION (8F)



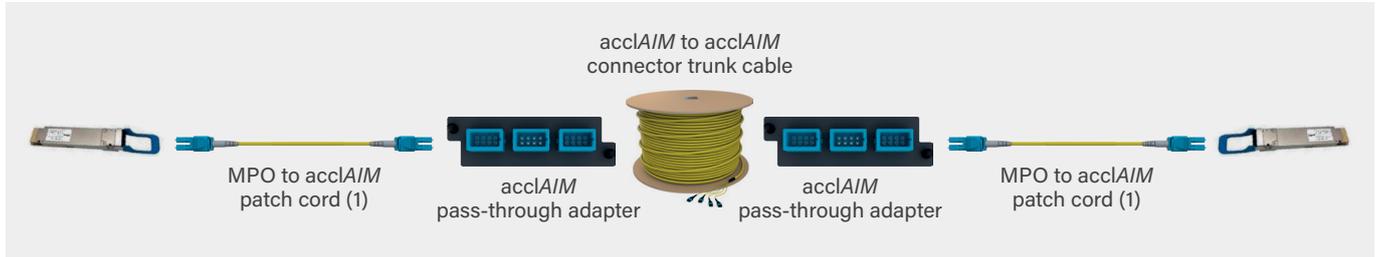
### REPLACES



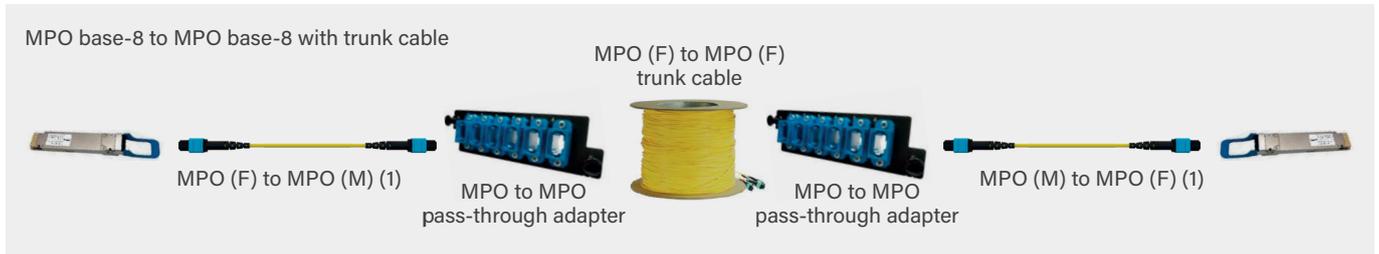
### acclAIM advantages

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity
- ▶ Higher density
- ▶ No trunk furcation/stagger
- ▶ Simplified cable management
- ▶ Less bulk
- ▶ No cassette housing

**■ ARRAY LINK CONFIGURATION (8F)**



**REPLACES**



**acclAIM advantages**

- ▶ Better performance
- ▶ Simpler polarity

**■ 8F DISTRIBUTION LINK CONFIGURATION**



**REPLACES**



**acclAIM advantages**

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)

**CONVERGENT LINK CONFIGURATION (8F)**



**REPLACES**



**acclAIM advantages**

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)

**24F DISTRIBUTION LINK CONFIGURATION**



**REPLACES**



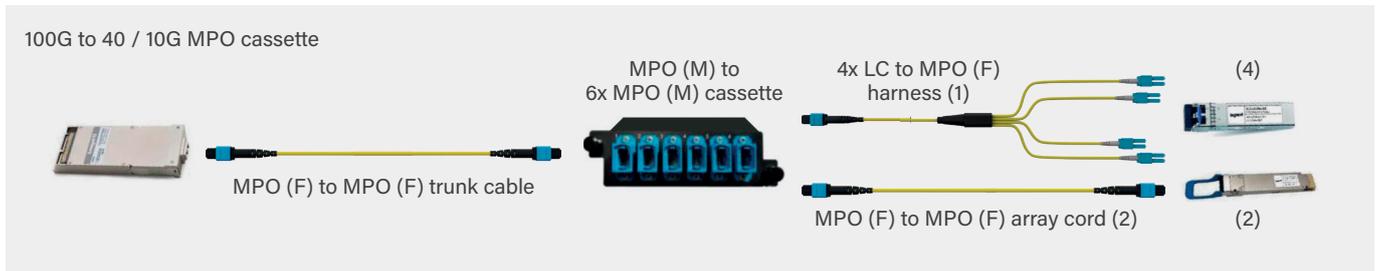
**acclAIM advantages**

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)

**24F MIXED LINK CONFIGURATION (acclAIM ONLY)**



**REPLACES**



**acclAIM advantages**

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)

**24F MIXED LINK CONFIGURATION (WITH MDC)**



**REPLACES**

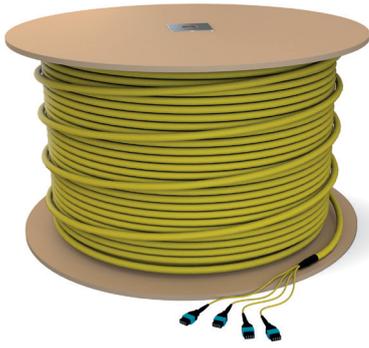


**acclAIM advantages**

- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)

**acclA/M**

**trunk cable assembly**

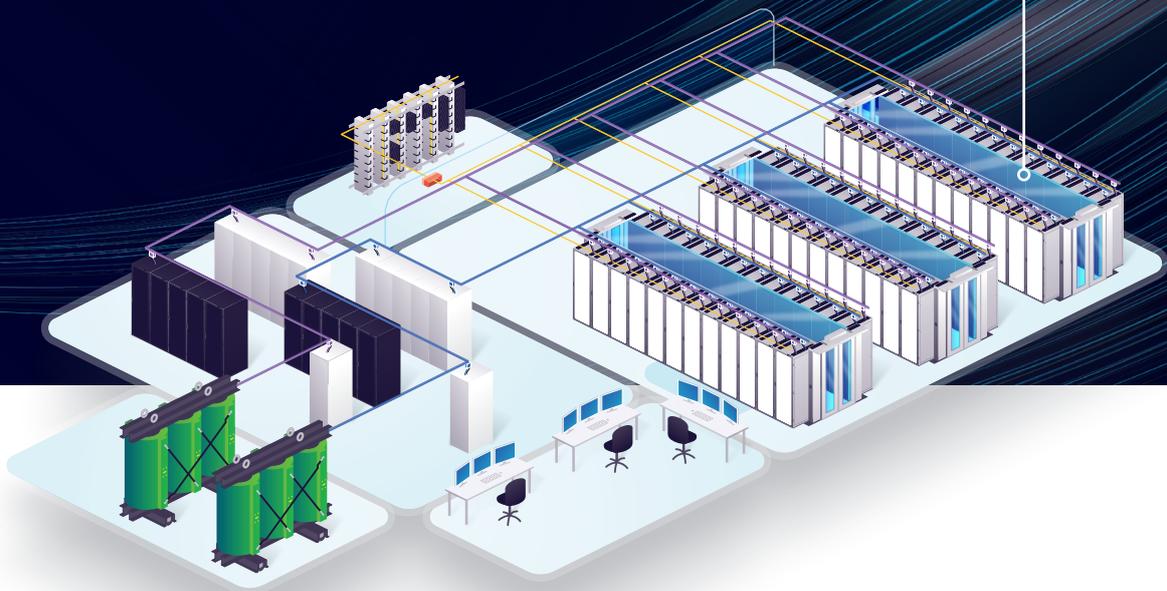


Example of trunk cable assembly

Pack	Cat.Nos	Trunk Cable assemblies
		Polarity: C Jacket type: Plenum Unit of measure: Meters / Feet
1	On demand <sup>1</sup>	<b>OM5</b>
1	On demand <sup>1</sup>	8 fibers
1	On demand <sup>1</sup>	24 fibers
		48 fibers
		<b>OM4</b>
1	On demand <sup>1</sup>	8 fibers
1	On demand <sup>1</sup>	24 fibers
1	On demand <sup>1</sup>	48 fibers
		<b>OS2</b>
1	On demand <sup>1</sup>	8 fibers
1	On demand <sup>1</sup>	24 fibers
1	On demand <sup>1</sup>	48 fibers

<sup>1</sup>: For all pre-configured and customized options, consult us.

# DATA CENTER STRUCTURED CABLING SOLUTION



With the complexities of today's data centers, as well as the promise of higher speeds and technological breakthroughs in the not-too-distant future, it's no wonder that the importance of structured cabling is also increasing.

In contrast to the many limitations inherent in point-to-point connections, structured cabling — or the use of smaller standardized subsystems — allows easier individual connections to be found, moved, and generally managed. Clearly, for forward-thinking data centers, structured cabling infrastructure is the way to go when it comes to data cabling solutions.

**UPTIME**

With newer data centers, access to critical information is the business's lifblood, which means that uptime requirements — often with a rating as high as 99 percent — must be supported by the cabling system you install.

**SCALABILITY**

Whatever cabling solution you choose today will undoubtedly be required to make room for more bandwidth and higher speeds in the future. Scalability is as essential in your cabling infrastructure as it is to the equipment it connects.

**FUTURE-PROOF**

Along with scalability, your cabling system must be easy to adapt for future equipment changes, such as the push for more modular device usage and migrations to the cloud and virtual services.

**LEGRAND'S RESPONSE**

The LCS<sup>3</sup> cabling system is a modular and flexible connection and distribution system for:

- copper and fiber optic technology
- 19" installation
- pre-assembled copper and fiber trunking technology
- splicing technology and on-site assembly of copper connection modules

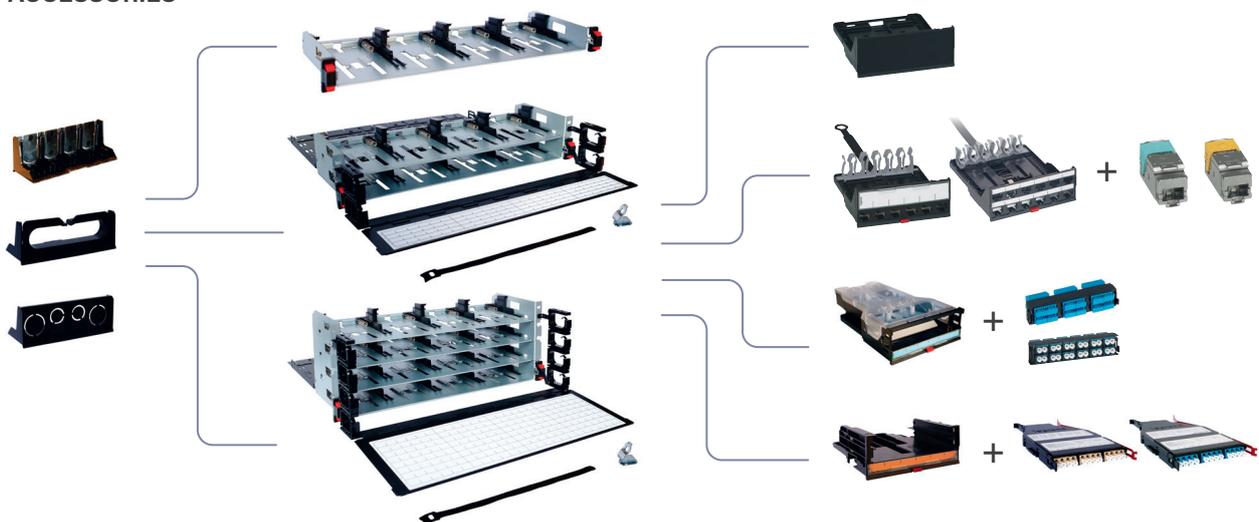
The overall system is designed in such a way that the various basic housings and basic support systems for accommodating the module housings can be configured for the most diverse areas of use and application conditions via standardised components and individual parts.

This very high degree of flexibility means that customer-specific requirements can be configured individually.

**CABLE MANAGEMENT ACCESSORIES**

**1U PANEL, 2U PANEL, 4U PANEL**

**COPPER AND FIBER CASSETTES**



# LCS<sup>3</sup> system: Performance

Legrand's LCS<sup>3</sup> system offers you a complete range of copper solutions as well as fiber optic solutions designed to deliver advanced network performance:

- ▶ 25 Gbps and 40 Gbps Ethernet applications (Copper system)
- ▶ 40 Gbps, 100 Gbps and 400 Gbps Ethernet applications (Fiber optic system)
- ▶ MTP/MPO high density and up to Cat. 8 solutions (Copper and Fiber optic systems)

**50** | **LCS<sup>3</sup> system: Efficiency**

**54** | **LCS<sup>3</sup> system: Scalability & Maintenance**

# INSTALLATION KITS

## ■ Zero-U kit for universal fixing

The Zero-U kit Cat.No 0 321 03 enables you to mount cassettes on 19" uprights, raised access floors, wire and sheet metal cable trays, structural uprights of the enclosure, etc.

The kit can take up to 2 slim High Density cassettes Cat.Nos 0 321 68/69/70 or 1 universal High Density cassette Cat.No 0 321 59 or 0 321 60.

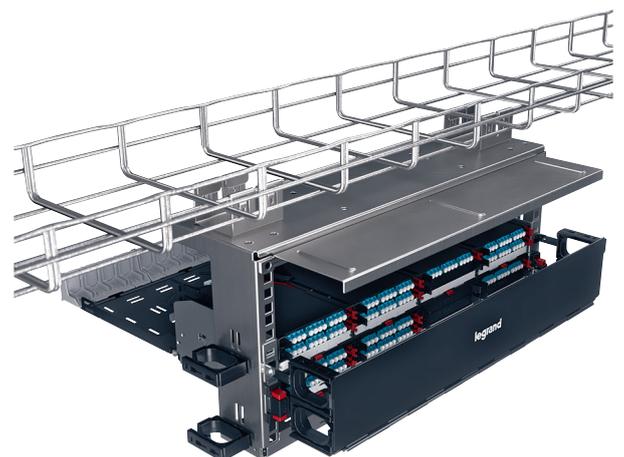
- Efficient solution to optimize space without the need to add an enclosure.
- Compatible with 1U, 2U and 4U High Density modular panels.
- Easy mounting on cable trays (such as Cablofil) thanks to quick-fixing solutions.



## ■ 1U to 4U kit for overhead fixing

No space available in your LCS<sup>3</sup> enclosure? The innovative kit Cat.No 0 321 89 enables you to fix the High Density modular panels on wire cable trays, above the enclosure.

- Perfect toolless fitting on cable trays. It can also be installed on roofs of racks.
- Maintains duplex multimode fiber architecture.
- Scalable (move, add, change) and efficient (space optimization) system.
- Easy installation and maintenance.
- Can be equipped with fiber optic and copper solutions.
- Compatible with automatically removable cassettes.
- Accommodates the same solutions as 19" patch panels.



# HIGH DENSITY MODULAR PANELS

## ■ From 1U to 4U

Optimize space and connectivity with our three HD modular panels! These quick-fixing solutions (automatic mounting and automatic grounding on 19" uprights) offer you optimum capacities per U: 96 in LC version, 48 in SC version, and 24 in ST version! Keeping link connections accessible and manageable, they offer slim and mix-media cassettes.

### 4U HIGH DENSITY PANEL

Can hold up to 32 slim cassettes (into 16 supports)

Rear management accessories to suit all configurations: fan out, cable glands, copper

Possibility to mix fiber and copper cassettes in one panel

Each panel can be equipped with both standard and slim High Density cassettes

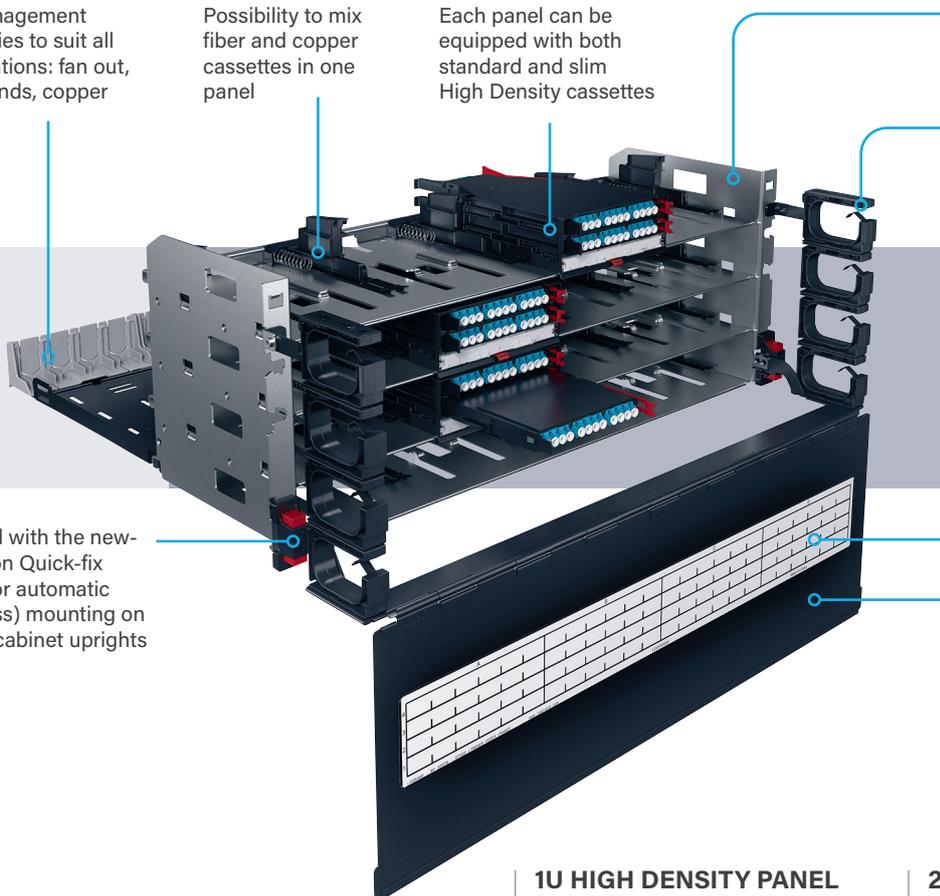
Quick fixing solutions on all the versions from 1U to 4U

Cord management system (except for the 1U panel, to be equipped with Cat.No 0 321 78) with front, side and bottom protection of the patchcords, preventing any risk of damage

Labeling system for easy identification

Equipped with the new-generation Quick-fix system for automatic (screwless) mounting on racks or cabinet uprights

Integrated front door for protection against intrusive patching and laser



### 1U HIGH DENSITY PANEL

Can hold up to 8 slim cassettes (into 4 supports)



### 2U HIGH DENSITY PANEL

Can hold up to 16 slim cassettes (into 8 supports)



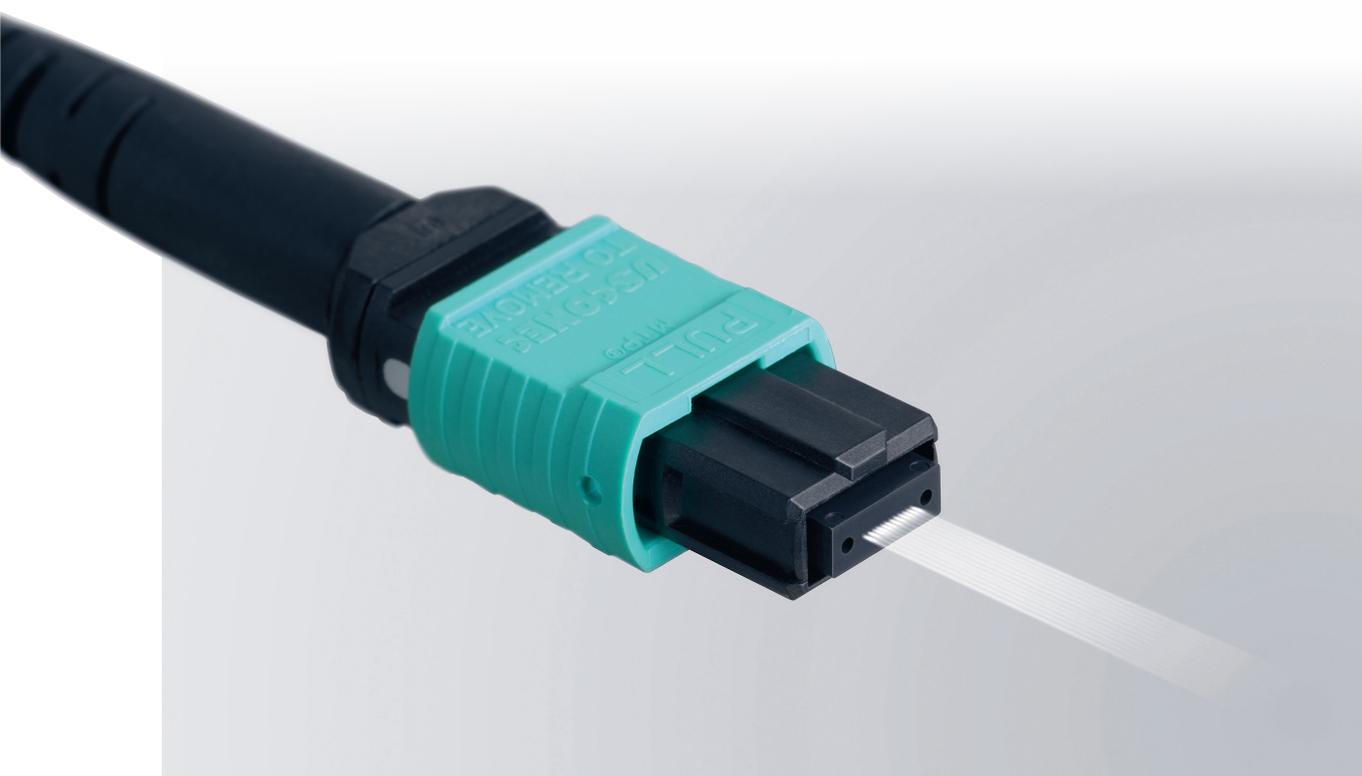
Fiber optic is a transmission medium that enables a larger bandwidth to be used than copper cables. With fiber optic cables, transmission is based on the propagation of light pulses, generated by an LED or a laser source in the infrared band, along a glass fiber. Inside an optical fiber, the signal can either be propagated in a straight line, or be reflected many times. Straight line propagation mode is said to be zero order. Singlemode fibers only use one mode to propagate light. The diameter of their cores is between 8 and 10  $\mu\text{m}$ . Multimode fibers allow several propagation modes, and the diameter of their cores is 50  $\mu\text{m}$  or 62.5  $\mu\text{m}$  (the latter is hardly ever used now). The diameter of the cladding is usually 125  $\mu\text{m}$ . Multimode fibers are used in indoor installations and enable more economical devices to be used. They are subject to modal distortion when the different modes propagate at slightly different speeds, limiting the maximum distance at which the signal can be received correctly. Singlemode fibers are used in outdoor installations as they can cover much longer distances and reach much higher speeds.

## FIBER OPTIC SYSTEM MTP SOLUTIONS

### High-speed solution

With data centers, increased data rates have become a priority requirement. The IEEE has introduced parallel optics as an alternative to higher bandwidth fiber, starting with 40Gbps and now reaching 800Gbps Ethernet.

To answer this need, Legrand has introduced the MTP (Multiple-Fiber Push-On/Pull-Off compatible MPO) fiber solution to the catalogue. It guarantees speed, resistance, high performance, and high density.

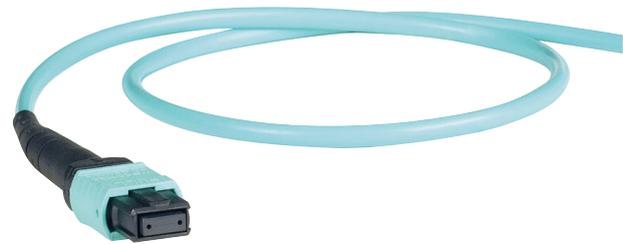


### ■ 40/100/400 Gigabit ethernet connectivity and cable

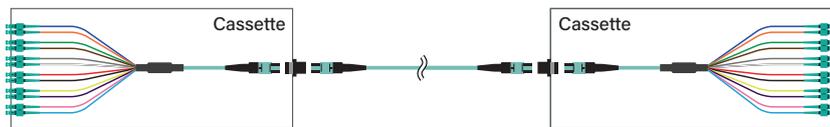
Identified by IEEE, TIA and ISO/IEC as the solution for non-duplex applications. The term MPO is the generic name, while the term MTP is a specific higher performance version with lower insertion loss.

MTP connector features:

- a high-speed connection with 12 fibers (2x12 for 24 fibers and with cassettes 8 fibers compatible).
- precise and safe connection.
- optimized cable management.
- high-density fibers.
- scalable system for future upgrades.
- simple maintenance operations.
- ease of extraction. No complex installation on site - plug and play.
- the MTP is a multi-core connector. 1 cable = 1 connector.



With standard active equipment, we need to convert the MTP to LC or SC



### Optical performance

MTP <sup>1</sup> connectors	Multimode Ultra Performance*	Single-mode Ultra Performance*
<b>IL/Master</b>	0.1 dB typical (all fibers) 0.35 dB maximum (single fiber) <sup>(2) (3)</sup>	0.1 dB typical (all fibers) 0.35 dB maximum (single fiber) <sup>(1) (4)</sup>
<b>IL Max/Random*</b>	0.35 dB (single fiber)	0.35 dB (single fiber)
<b>Optical return loss<sup>(5)</sup></b>	> 20 dB	> 60 dB (8° angle-polished)

\* Performance is guaranteed only with other components of the same Legrand range (Core, Ultra, and Quantum). Mixing ranges or using other brands' components may lead to a different system performance. The uncertainty value for field measurement with LSPM testing using a reference cord defined in ISO/IEC 14763-3 applies to field testing with proposed Legrand testing cords. Refer to the Fiber Optic Testing Guide for Legrand Solutions.

<sup>(1)</sup> As tested in accordance with ANSI/TIA-455-171 Method D3 / IEC 61300-3-4  
<sup>(2)</sup> As tested in accordance with ANSI/TIA-455-171 Method D1 / IEC 61300-3-4  
<sup>(3)</sup> As tested on 50µm fibers at a wavelength of 850 nm in accordance with IEC 61280-4-1  
<sup>(4)</sup> Complies with IEC 61755-3-31/GRADE B  
<sup>(5)</sup> As tested in accordance with IEC 61300-3-6 and ANSI/TIA-455-107A

LC, SC, LC APC, SC APC connectors	Multimode Ultra Performance*	Single-mode Ultra Performance*
<b>IL Max/Master*</b>	0.15 dB	0.15 dB
<b>IL Max/Random** ***</b>	0.2 dB	0.25 dB
<b>Typ. IL/Master*</b>	0.08 dB	0.12 dB
<b>Typ. IL/Random** ***</b>	0.10 dB	0.12 dB
<b>Return loss (UPC/APC)</b>	> 25 dB	> 55/65 dB

\* IEC 61300-3-4  
 \*\* IEC 61300-3-34  
 \*\*\* Performance is guaranteed only with other components of the same Legrand range (Core, Ultra and Quantum). Mixing ranges or use of components of other brand may lead to a different performance of the system. The uncertainty value for field measurement with LSPM testing using a reference cord defined in ISO/IEC 14763-3 applies to field testing with proposed Legrand testing cords. Refer to the Fiber Optic Testing Guide for Legrand Solutions.

### COMMON DATA CENTER APPROACHES

Multimode fiber systems have been the most cost-effective fiber solution to use in the data center because the transceivers are much less costly than single-mode transceivers. Multimode transceivers use a vertical cavity surface emitting laser (VCSEL) light source, which is easy to manufacture and package. Multimode fiber systems have a shorter reach than single-mode systems; however, surveys have shown that more than 80% of data centers links extend to 100m or less. Although single-mode cable is less expensive, after factoring in the total system cost of multimode versus single-mode, multimode is still far more cost-efficient.

#### Maximum data rate according to fiber type and number of cores used

	OM3	OM4	OM5	OS1a	OS2
2-core	1Gbps: 550m 10Gbps: 300m 25Gbps: 70m 50Gbps: 70m	1Gbps: 550m 10Gbps: 400m 25Gbps: 100m 50Gbps: 100m 100Gbps: 100m	1Gbps: 550m 10Gbps: 400m 25Gbps: 100m 50Gbps: 100m 100Gbps: 100m	1Gbps to 400Gbps: 2km	1Gbps: 5km 10Gbps to 400Gbps: 10km
4-core	100Gbps: 70m	100Gbps: 100m 200Gbps: 100m	100Gbps: 100m 200Gbps: 100m	100Gbps: 500m	100Gbps: 500m
8-core	40Gbps: 100m 100Gbps: 70m 200Gbps: 70m 400Gbps: 100m	40Gbps: 150m 100Gbps: 100m 200Gbps: 100m 400Gbps: 100m	40Gbps: 150m 100Gbps: 100m 200Gbps: 100m 400Gbps: 150m	200Gbps: 500m 400Gbps: 500m 800Gbps: 500m	200Gbps: 500m 400Gbps: 500m 800Gbps: 2km
16-core	400Gbps: 100m 800Gbps: 70m	400Gbps: 100m 800Gbps: 100m	400Gbps: 100m 800Gbps: 100m	800Gbps: 100m 1.6Tbps: 500m	800Gbps: 2km 1.6Tbps: 2km

Data in orange: draft applications (distances may vary at time of publication)

# FIBER OPTIC SYSTEM CASSETTES

## ■ Slim solutions for greater connectivity

Optimize space and increase the connectivity capacity of your infrastructure with slim cassettes! They are easy to install and maintain from the rear and front, and they are agile and flexible under all circumstances.

- Mounting either on High Density modular panels or in a Zero-U kit.
- Single-mode and multimode MTP solutions that can be mixed on the same support.
- Sliding cassettes individually removable from front and rear: accessible and easily manageable.
- Equipped with extraction button for easy maintenance: reduced time, cost and risk of MAC.
- High-performance with low insertion loss.
- Universal polarity offers flexibility in case of changes.

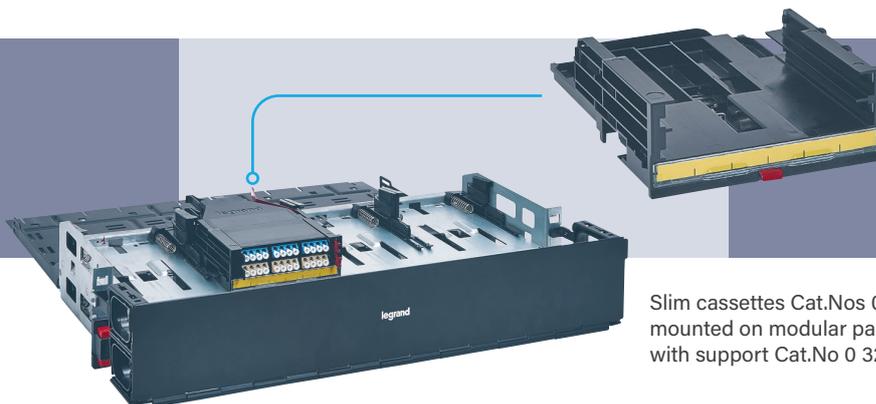
TYPE	CAT. NO
12 LC OM5 multimode	On demand
12 LC OM4 multimode	0 321 69
12 LC OM3 multimode	0 321 68
12 LC OS2 single-mode	0 321 70
Blanking module	0 321 39



OM4 multimode slim cassette - Cat.No 0 321 69



OS2 single-mode slim cassette - Cat.No 0 321 70



Slim cassettes are to be mounted on HD modular panels with support Cat.No 0 321 38. The support can take up to two slim cassettes.

Slim cassettes Cat.Nos 0 321 69/70 mounted on modular panel Cat.No 0 321 76 with support Cat.No 0 321 38

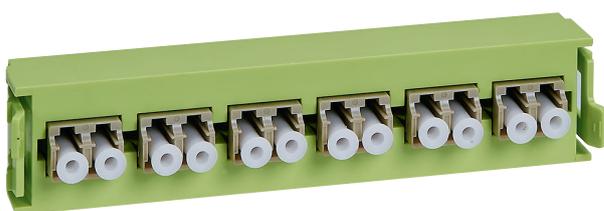
# Ready for FUTURE APPLICATIONS!

Our on-demand OM5 offer meets all your requirements in terms of connectivity! The infrastructure can easily evolve from 25 G or 50 G to 100 G and to 400 G thanks to parallel and multiplexing applications.

OM5 multimode MTP adaptor

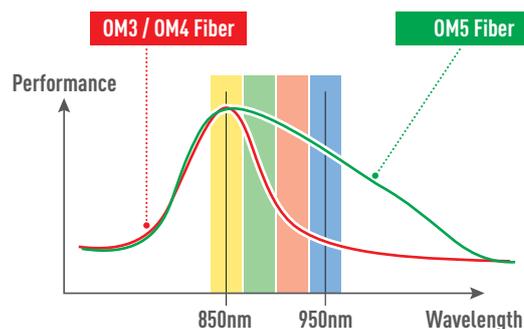
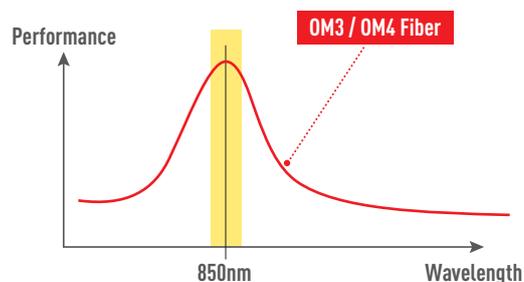


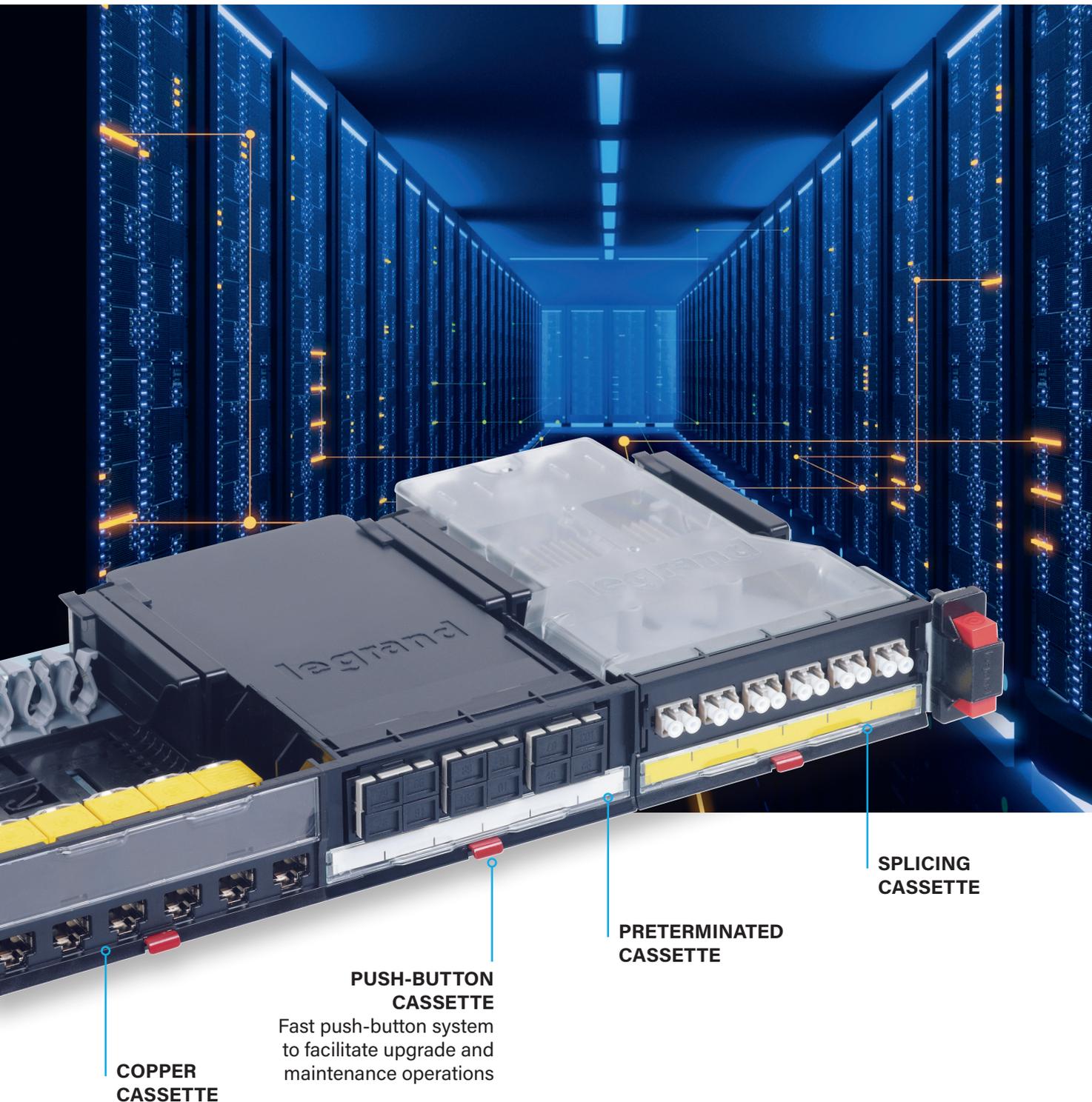
OM5 12 LC multimode block



## PERFORMANCE AND WAVELENGTH

OM3 and OM4 fibers are optimized according to the wavelength traditionally used: 850nm. To accept the four signals used in multimode WDM, OM5 has been redesigned to accept wavelengths from 850nm to 950nm. The diagrams below provide a graphical representation.





**COPPER CASSETTE**

**PUSH-BUTTON CASSETTE**  
Fast push-button system to facilitate upgrade and maintenance operations

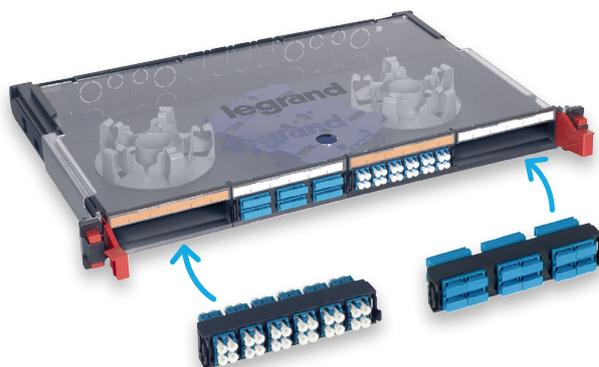
**PRETERMINATED CASSETTE**

**SPLICING CASSETTE**

## FIBER OPTIC SYSTEM PANELS

### ■ Modular panels

- Innovative quick-fixing solution.
- Modular blocks to adapt to modular panel or drawer:  
LC, SC, ST, LC, APC, SC APC.
- Possible to add modular blocks, blank panel, MTP adaptor.



### ■ HD Modular panels

- Cassettes slide in from front & rear.
- Fast push-button on cassette.
- Splicing cassette which takes all modular blocks.
- Mixture of fiber/copper on cassette panel.
- Trunk & cord management system.



# LCS<sup>3</sup> system: Efficiency

Legrand's LCS<sup>3</sup> system offers you copper and fiber optic solutions designed to enhance your infrastructure's efficiency:

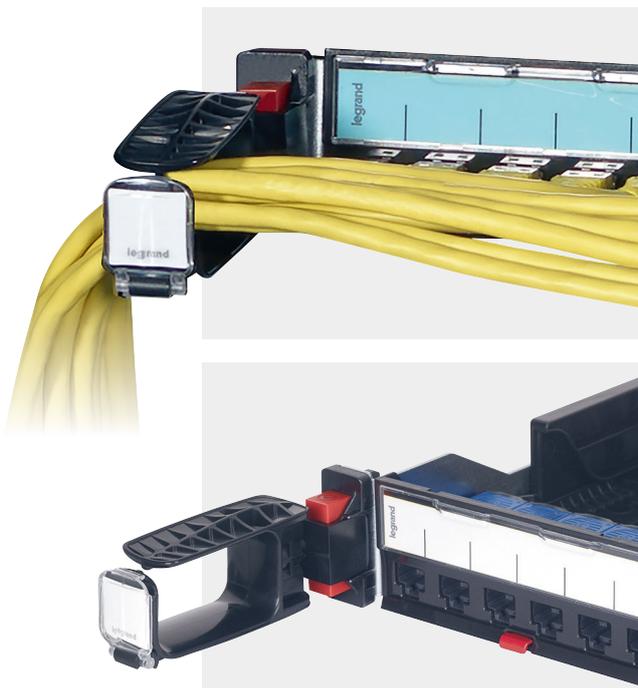
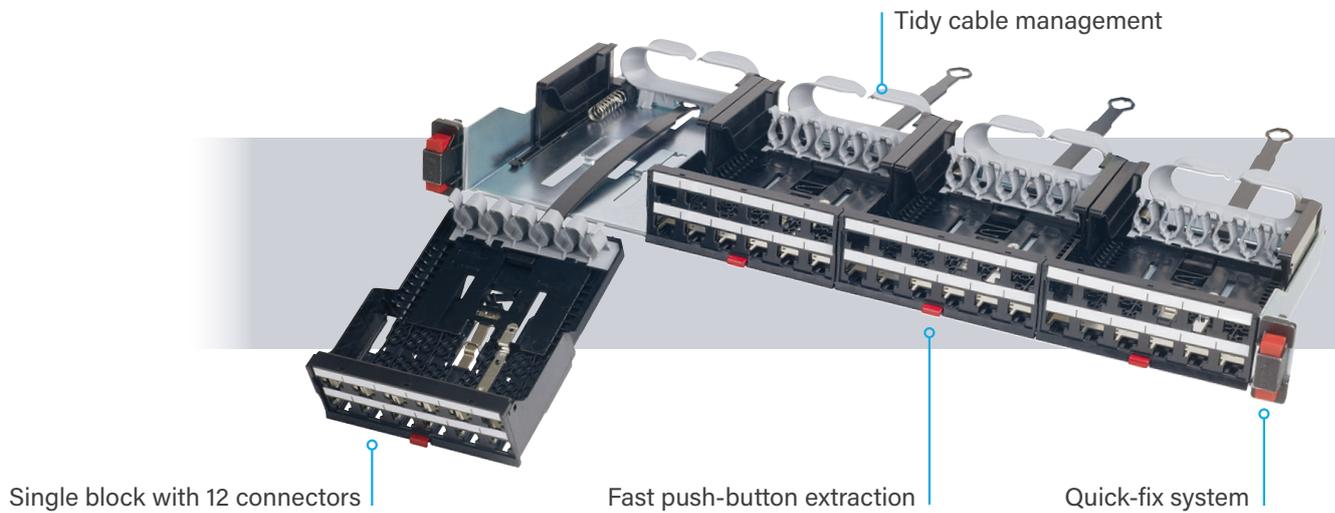
- ▶ 48 ports per unit for high density (Copper system)
- ▶ 90 LC per unit for high density (Fiber optic system)
- ▶ 144 LC per Unit for ultra-high density (Copper and Fiber optic systems)

## 54 | LCS<sup>3</sup> system: Scalability & Maintenance

# COPPER SYSTEM

## PATCH PANEL HD SOLUTION UP TO 48 PORTS PER UNIT

High-density patch panel. It has changed from 24 to 48 ports, guaranteeing a reduced space occupied and making future upgrades easier. Designed to house four blocks of 12 connectors each.



### ■ QUICK-FIX system

Innovative quick-fixing solution:

- Push and connect system.
- Automatic earth connection.
- In-rack cabling optimized.
- Accessory for patch cords with rotating system for angle adjustment and label holder.

Compatible with all panels (flat, angled, HD)



## COPPER SYSTEM PATCH PANELS

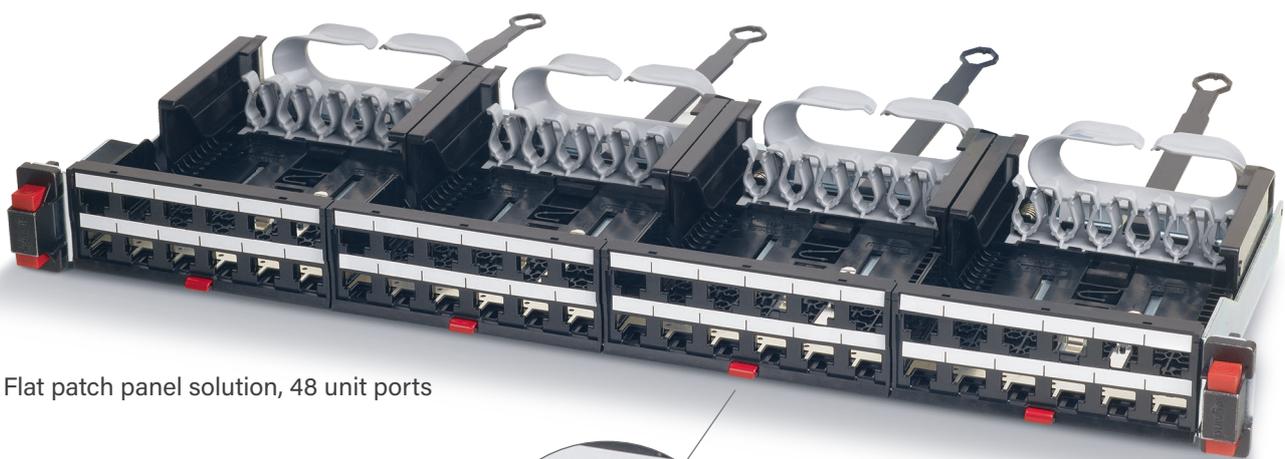
The patch panels have been designed and produced to optimize space, with up to 48 ports per unit, and make maintenance and future upgrades easier. They are available in both flat and angled versions. They have a quick system for pulling out the unit and an innovative cable guiding system for tidy and easy cable management.



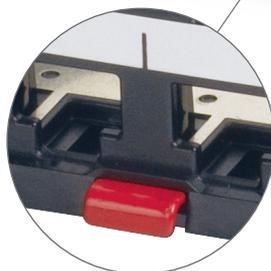
Block of 12 connectors for patch panel

### ■ Innovative cassettes

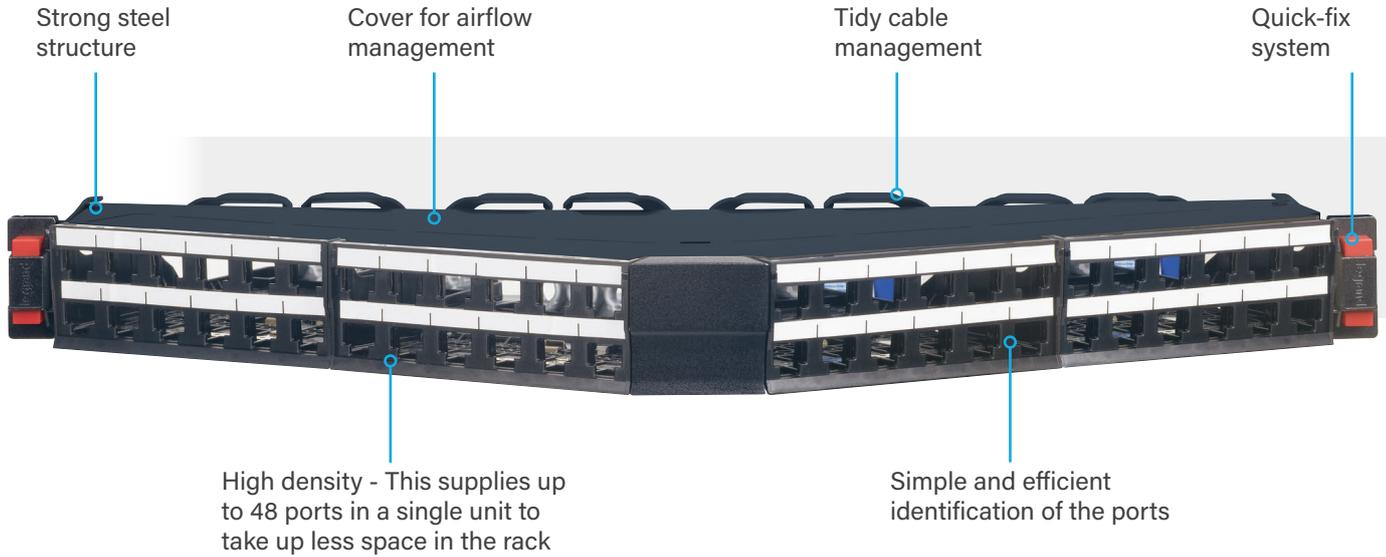
- Sliding cassettes: easier maintenance.
- Fast push-button extraction.
- Innovative modular cassette system.
- Easy maintenance: hands-free solution, cassette maintained after extraction.
- Easy to mix with Legrand fiber optic solutions.



Flat patch panel solution, 48 unit ports



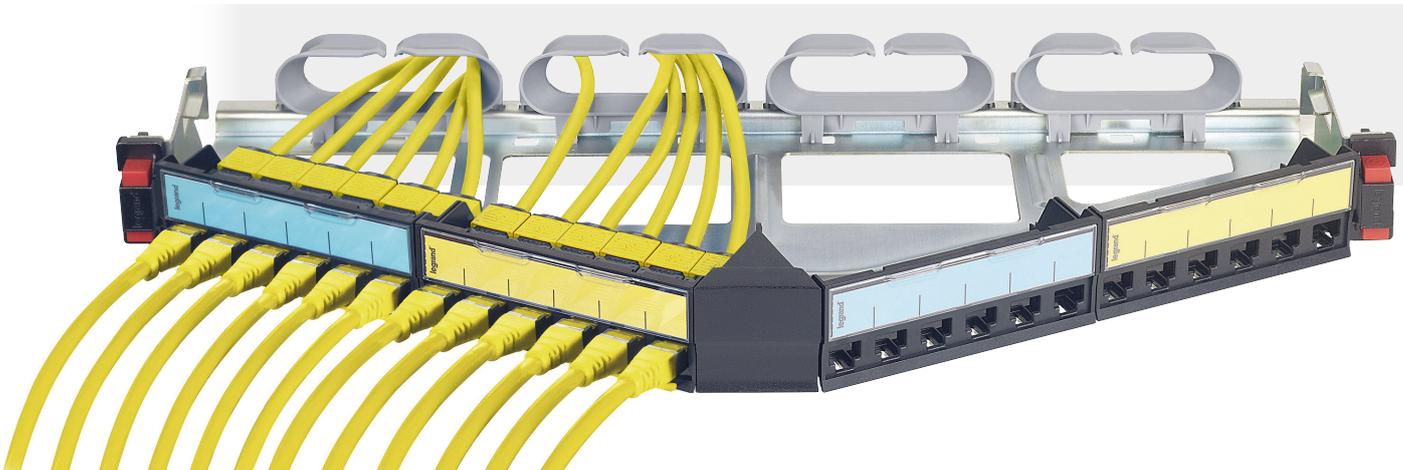
Fast push-button extraction



■ Angled patch panel solution from 24 to 48 ports per unit

Patch panels with an angled design allow the cable to run into each side of the rack, creating a correct cable radius of curvature. This avoids the need to manage the cables horizontally, and allows the patch cords to be carried directly in the vertical cavities.

Also available in the 24-port version





# LCS<sup>3</sup> system: Scalability & Maintenance

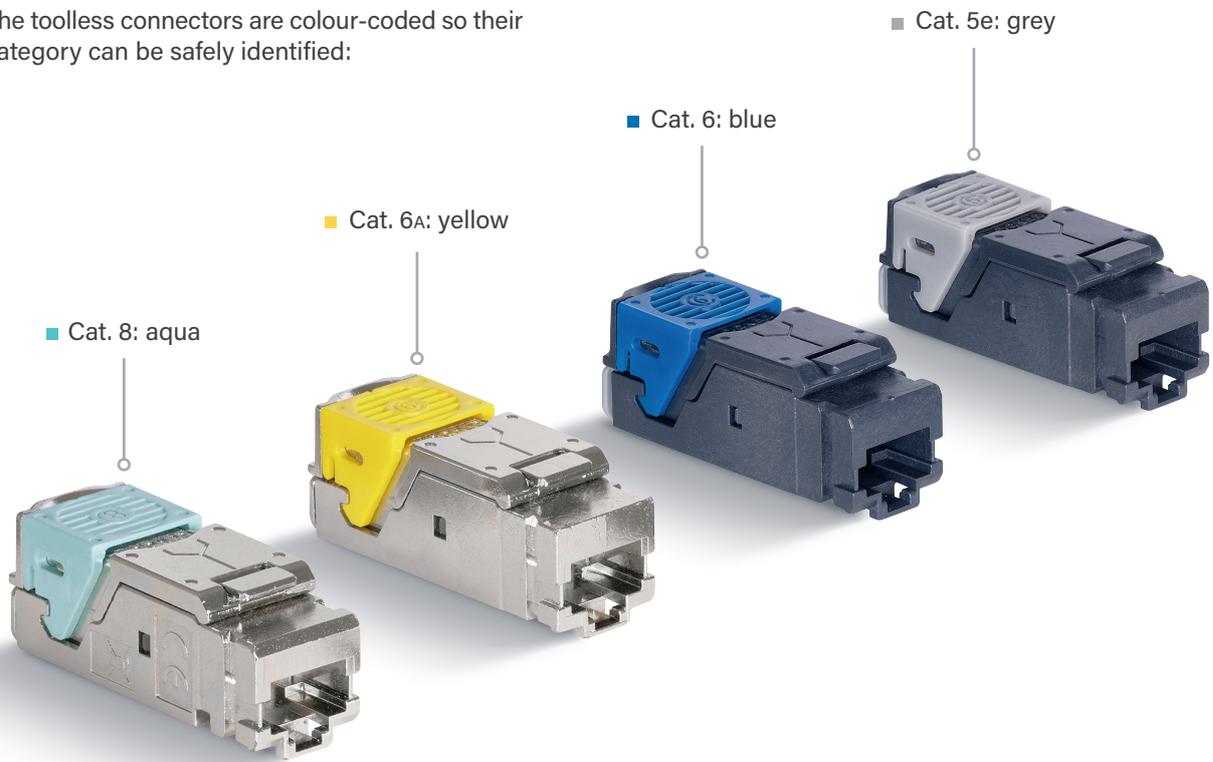
Legrand's LCS<sup>3</sup> range offers you innovative systems to facilitate wiring and installation, while offering increased data rates with both the copper solution and the fiber optic solution.



# COPPER SYSTEM RJ 45 CONNECTORS

The **TOOLLESS CONNECTORS** with toolless fast connection are available in all categories for installation on patch panels and in the workstation. A perfect connection can be obtained in a few seconds, guaranteeing the optimum performance of the link from the patch panel to the workstation.

The toolless connectors are colour-coded so their category can be safely identified:



**WANT TO KNOW ABOUT  
PoE AND INCREASE  
THE POWER OF YOUR  
NETWORK?**



**CONTACT YOUR LOCAL  
SALES REP TO GET OUR PoE  
INSTALLATION GUIDES!**

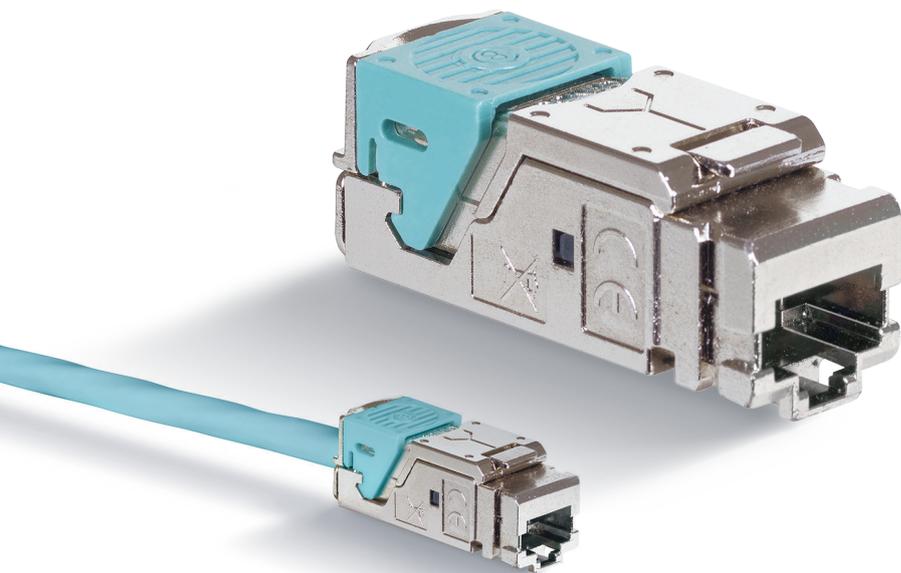


## COPPER SYSTEM OPTIMUM PERFORMANCE WITH CAT. 8

### ■ Cat.8 connectors

The toolless Cat. 8 STP connectors with transmission speed (bit rate) from 25 Gbps to 40 Gbps, are integral to the performance of the LCS<sup>3</sup> system.

- In accordance with ISO/IEC 11801 series standards.
- Tested up to 2500 connection/disconnection cycles.
- A perfect connection in just a few seconds.



### ■ Connection & cabling

To maximize performance, combine the Legrand Cat. 8 connector with the Legrand Cat. 8 cable supporting up to 40 Gbps over a single cable.

The Cat. 8 cable is terminated with an improved dedicated RJ45 connector, which can support future performance.

The performance is 4 times better than that of a Cat.6a cable with up to 2000 MHz bandwidth.

- Double screening to avoid interference and loss of data.
- Dedicated to higher capacity in data centers and equipment rooms.
- Compliant with ISO/IEC 11801 series standards.

Legrand guarantees the following performance on end-to-end links of Cat.6a/Class Ea:  
**3dB margin on Channels, on Return Loss (RL) and Near End Cross Talk (NEXT) performance, for the complete frequency range, based on ISO/IEC limits.**

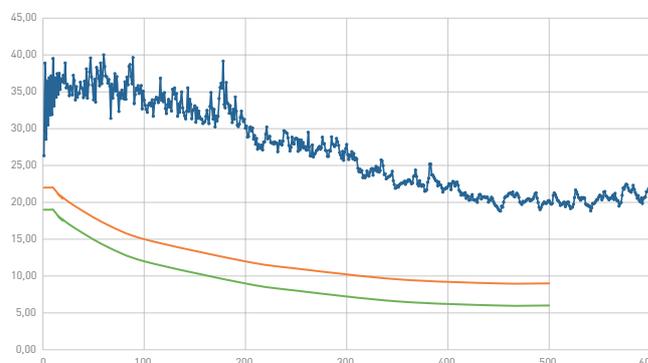
- No marginal results (shown with Asterisk on test results) on Permanent Links.
- Valid on standard compliant 2 connectors channels.

**Next**



Standard limit    LCS<sup>3</sup> Guarantee    LCS<sup>3</sup> Typical NEXT

**Return loss**



Standard limit    LCS<sup>3</sup> Guarantee    LCS<sup>3</sup> Typical RL

**Applications distances according to category of Cabling**

	LCS <sup>3</sup> Cat.5e	LCS <sup>3</sup> Cat.6	LCS <sup>3</sup> Cat.6A	LCS <sup>3</sup> Cat.8
Frequency <sup>(1)</sup>	100MHz	250MHz	500Mhz	2000MHz
Application				
1000Base-T	<b>100m</b>	<b>100m</b>	<b>100m</b>	<b>100m</b>
2.5Gbase-T	<b>Possible<sup>(2)</sup></b>	<b>Possible<sup>(2)</sup></b>	<b>100m</b>	<b>100m</b>
5Gbase-T	<b>Possible<sup>(2)</sup></b>	<b>Possible<sup>(2)</sup></b>	<b>100m</b>	<b>100m</b>
10Gbase-T	<b>N/A<sup>(4)</sup></b>	<b>Possible<sup>(3)</sup></b>	<b>100m</b>	<b>100m</b>
25Gbase-T	<b>N/A<sup>(4)</sup></b>	<b>N/A<sup>(4)</sup></b>	<b>Possible<sup>(5)</sup></b>	<b>30m</b>
40Gbase-T	<b>N/A<sup>(4)</sup></b>	<b>N/A<sup>(4)</sup></b>	<b>Possible<sup>(5)</sup></b>	<b>30m</b>

<sup>(1)</sup> Maximum frequency defined in the standards

<sup>(2)</sup> Follow ISO/IEC TR 11801-9904 or TIA TSB 5021 to evaluate the possibility on installed links. Distance will depend on many factors.

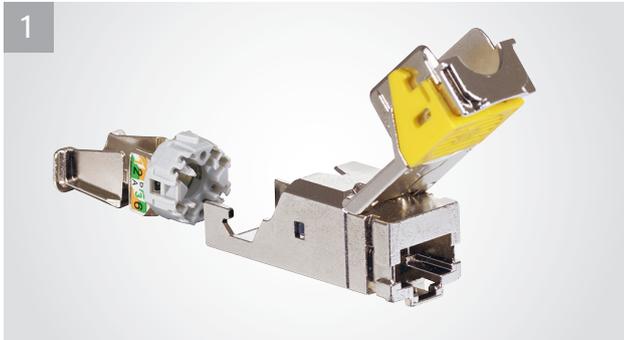
<sup>(3)</sup> Follow ISO/IEC TR 24750 or TIA TSB 155-A to evaluate the possibility on installed links. Distance will depend on many factors.

<sup>(4)</sup> Not Available.

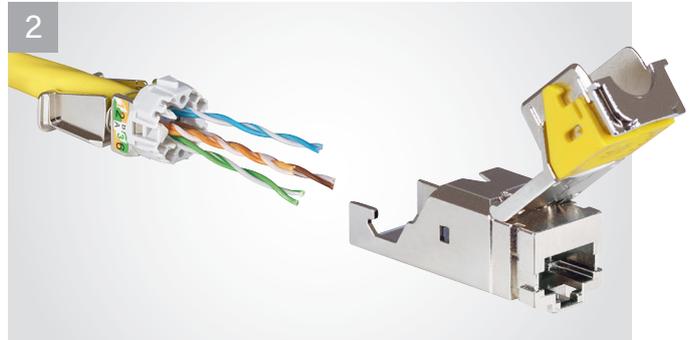
<sup>(5)</sup> Follow ISO/IEC TR 11801-9905 to evaluate possibility on installed links. Distance will depend on many factors.

## TOOLLESS CONNECTOR CONNECTION PHASES

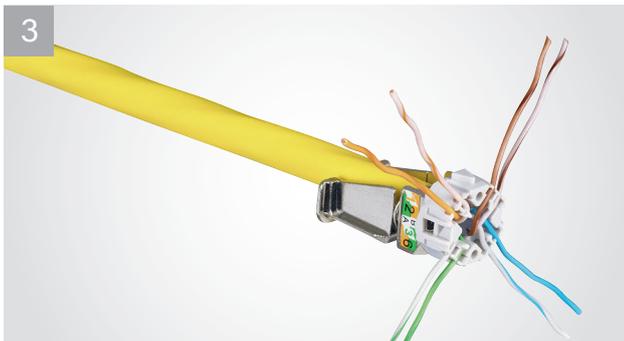
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1  
Take the wire housing



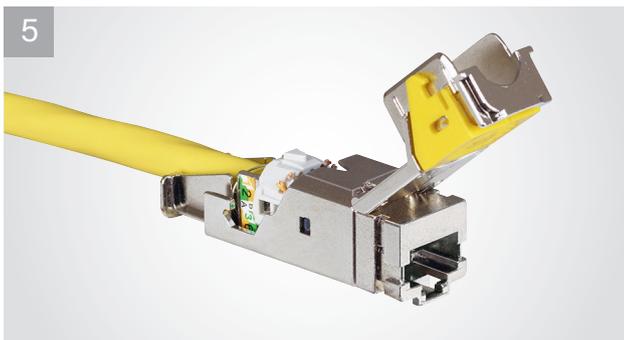
2  
Pass the cable through the back of the wire housing



3  
Separate and insert the pairs



4  
Cut the pairs



5  
Install the wire housing without pushing

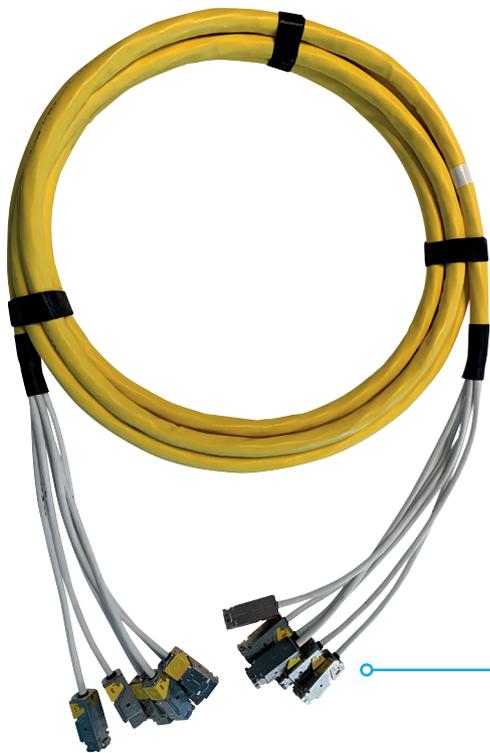


6  
Push down the lever and lock the connector

## COPPER SYSTEM

# PRE-TERMINATED COPPER TRUNK CABLE SOLUTION

In a data center, copper cables are an ideal solution as they can offer significant advantages in terms of capital expenditures, operating expenditures, and reliability. Pre-terminated copper trunk cables as a structured cabling option for quick and easy deployment in permanent link trunks and equipment port harnesses of data center architectures can be used for interconnect and cross-connect applications.



### Tested assemblies

All cable assemblies are tested to ensure that each installation functions properly.

### RJ 45 STP-Jacks

High-quality connectors ensure the reliability and stability of the system.

## ■ Different trunk solutions are possible for different applications

### ● Jack-to-jack copper trunk

The use of pre-assembled copper Ethernet trunk cables from Jack to Jack requires the use of empty patch panels at both ends.

### ● Plug-to-plug copper trunk

Plug-to-Plug copper cables are used to establish a direct connection between active devices (e.g. between server and switch). They can also be used in an open workspace as a bundled patch cable group.

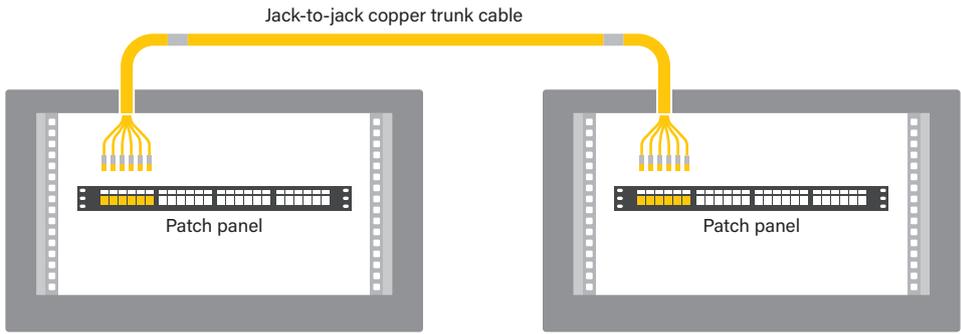
### ● Jack-to-plug copper trunk

Jack-to-plug copper cables are used to extend switch ports and for cross-connect connections. They are plugged directly into the active components on one side and require the use of empty patch panels on the other side.

■ **Examples of use**

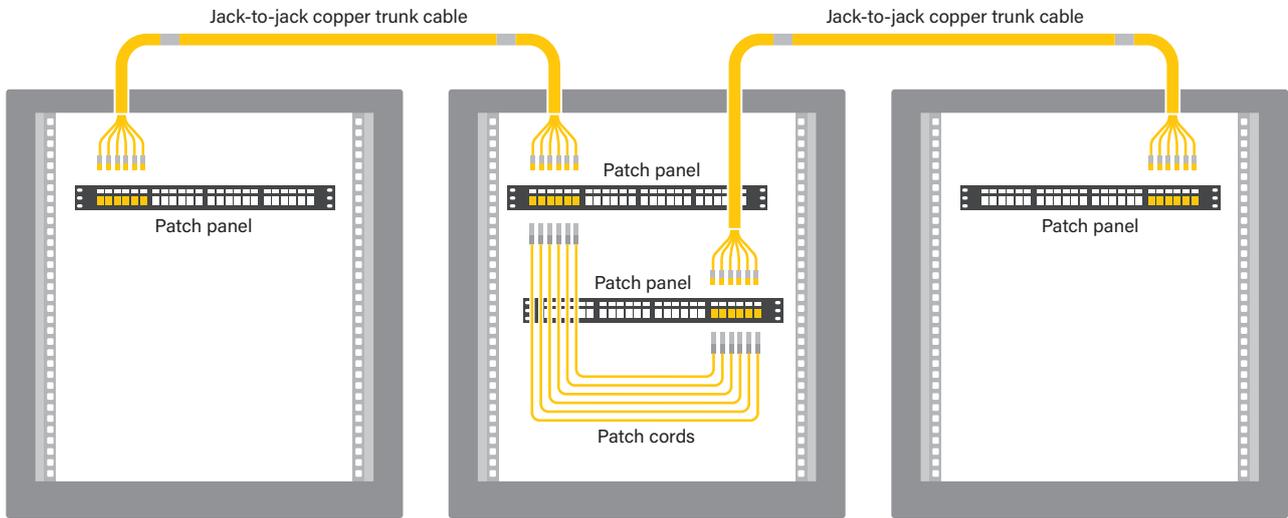
● **Interconnect**

In general data center cabling, copper Ethernet trunk cables provide a permanent connection between patch panels at both ends - one end is in a switch/network cabinet, and the other is in a server cabinet.



● **Cross-connect**

Cross-connect cabling usually uses a defined patch area (often with two or more adjacent patch panels) between the control/network cabinet and the server cabinets. Copper patch cables are used to connect the active devices and patch panels at the control/network cabinet, the cross-connect cabinet, and the server cabinet.



## ■ Details

### ● Use

- Preterminated trunks made of 6x4 twisted pairs cables and 6 x RJ 45 connectors at each end. Designed for ease of installation and space saving in data center environment.
- Delivered with an individual test report.

#### Nota:

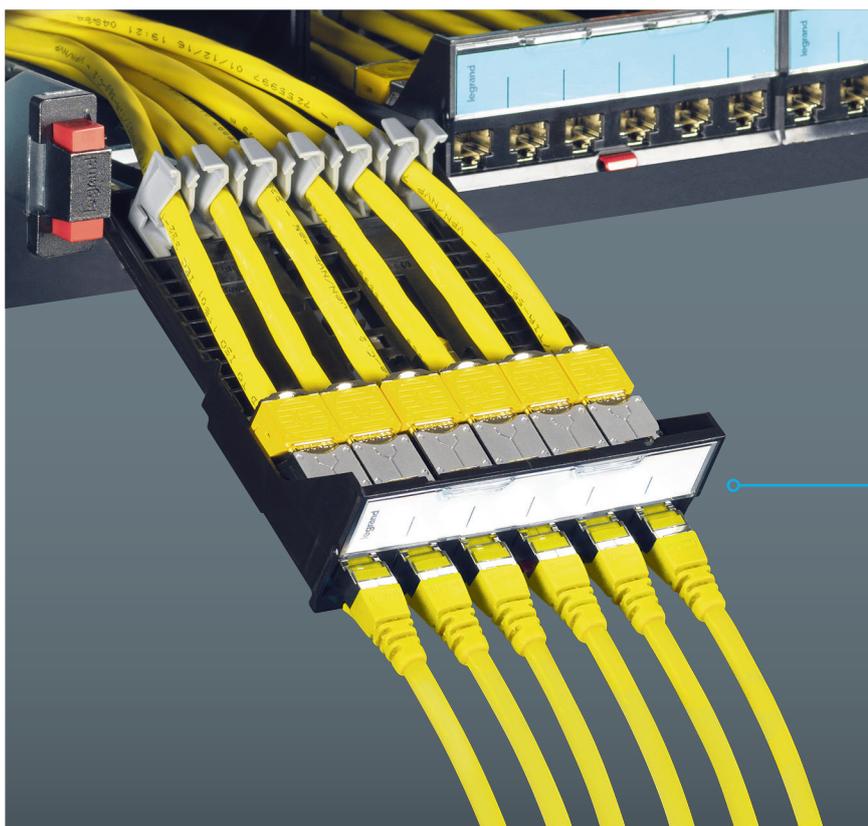
- this solution is not intended for the use of PoE. In the case of PoE, to be installed according to ISO/IEC 14763-2 and EN 50174-2. Contact Legrand for any temperature derating calculations linked to the environment or PoE.
- maximum patch cord length associated with these pre-terminated trunks: 5m

### ● Description

Preconnectorised solution composed of:

- 1 surgain cable 6 x 4 pairs
- 6 RJ 45 LCS<sup>3</sup> connectors at each extremity (protected in bubble bags)
- factory recipe
- cable tracking 1 to 6

### ● Installation



To be installed in LCS<sup>3</sup> copper cassette  
To be ordered separately

### ● Technical, mechanical and electrical features

Refer to components technical data sheets.

### ● Environmental features

Refer to components technical data sheets.

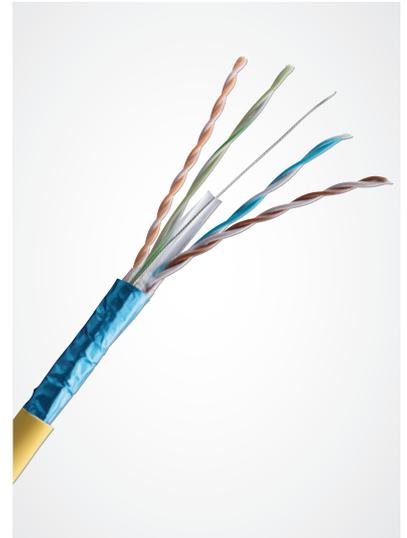
# COPPER SYSTEM CABLES

The cable is one of the most critical components in horizontal wiring for the performance of the whole link, in terms of both the product's quality and the installation's conformity. Any cable installation error will seriously compromise the performance of the installation. For structured cabling systems, the standard requires the use of category 5e, 6 and 6a (100 MHz, 250 MHz and 500 MHz respectively) twisted, symmetrical 4-pair cables with an impedance of 100 Ω 1).

The cable can be of the following type:

- Unshielded U/UTP (Unshielded Twisted Pairs).
- Shielded F/UTP (Foiled Twisted Pairs).
- Double shielding SF/UTP or S/FTP.

NOTE 1): To date, category 7 is not very widely used, even though it is standardised and can offer high performance levels. It is used for reasons of form factor, cost, and where there are installation difficulties.



## EXAMPLES OF LEGRAND CABLES

	Sheath	Storage/installation temperature	Operating temperature
<b>Cat. 6A F/UTP 100 Ω</b>	LSZH (zero halogen cables) conforming to standard NFC 32062, flame retardant conforming to standards IEC 332-1 and NFC 32070	0 to +50°C	-20 to +60°C
<b>Cat. 6 U/UTP 100 Ω</b>	PVC or LSZH cables conforming to standard NFC 32062, flame retardant conforming to standards IEC 332-1 and NFC 32070	0 to +50°C	-20 to +60°C
<b>Cat. 6 F/UTP 100 Ω</b>	PVC or LSZH cables conforming to standard NFC 32062, flame retardant conforming to standards IEC 332-1 and NFC 32070	0 to +50°C	-20 to +60°C
<b>Cat. 5e U/UTP 100 Ω</b>	PVC or LSZH cables conforming to standard NFC 32062, flame retardant conforming to standards IEC 332-1 and NFC 32070	0 to +50°C	-20 to +60°C

NOTE: For all other types of cable, please contact the Legrand sales network

## CPR

## CONSTRUCTION PRODUCTS REGULATION

The CPR regulation aims to guarantee the free circulation of products made in the European Union, adopting a harmonised technical language which can define the performance and essential features of all construction products.

Electrical cables are rarely the cause of a fire, but when they are involved, they may form a seriously hazardous component because of their large quantities and because they are found in all rooms of the building. With careful prevention and making state-of-the-art systems with safe and high-quality components in accordance with the CPR regulation, fire propagation, the lack of visibility in smoke-filled rooms, and the diffusion of corrosive and toxic gases can be reduced or almost eliminated.

The CPR regulation (EU 305/2011) concerns all the products made to be permanently incorporated (installed/used) in buildings and other civil engineering works (e.g. homes, industrial and commercial buildings, offices, hospitals, schools, undergrounds, etc.). As part of the features considered important for the safety of constructions included in the CPR, the European Commission has decided to consider cables' Reaction to Fire and Resistance to Fire, recognising the importance of their behaviour and role in fire. The release of harmful substances is one of the performances considered important for cables; however, no minimum performance levels have been established at present because when typically used, the cables do not release harmful substances.

All the cables installed permanently in constructions, to transport power or for telecommunications, of any voltage level and with copper or fiber optic conductors, must be classified based on the classes of premises where they will be installed.

**The cables are classified in seven classes of Reaction to Fire: Aca, B1ca, B2ca, Cca, Dca, Eca and Fca** identified by the subscript "ca" (cable) as a function of their decreasing performance. As well as this main classification, the European authorities have also regulated the use of the following additional parameters:

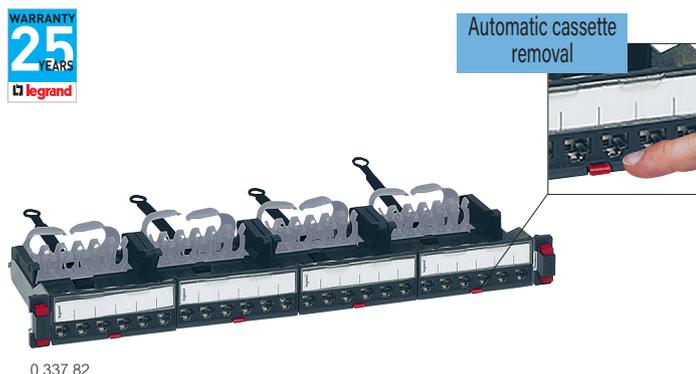
- **a** = acidity which defines the hazard of the fumes for people and the corrosiveness for things. Varies from a1 to a3
- **s** = opaqueness of the smoke. Varies from s1 to s3
- **d** = dropping of incandescent particles which could propagate fire. Varies from d0 to d2.

A more severe check (System 1+) is required for the classes from Aca to Cca. It lays down the initial check and continuous monitoring of the product and checks of the manufacturing control system, while for the classes from Dca to Eca the check only lays down the initial product check (System 3). Class F, however, is based on the manufacturer's self-declaration (System 4).



## Legrand cabling system, LCS<sup>3</sup> cat. 8

flat patch panels - equipped and to be equipped



0 337 82

Equipped with new-generation Quick-Fix for automatic (screwless) mounting on enclosure and cabinet uprights  
 Universal mounting on all cabinets or enclosures  
 Panels ensure automatic earthing of each connector  
 Equipped with four bundles guides fixed at the rear

Pack	Cat.Nos	
1	0 337 82	<p><b>Cat. 8 patch panel equipped with 24 RJ 45 connectors</b></p> <p>19" panel - 1U                      Equipped with 4 cassettes of 6 pre-fitted Cat. 8 LCS<sup>3</sup> RJ 45 connectors                      Automatic cassette removal by simple pressure                      Each connector can be removed individually                      T568A and B marking with colour codes                      Equipped with rear cable guide to hold cable during maintenance                      Supplied with coloured labels                      Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards</p> <p><b>Flat panel</b>                      STP panel - Metal shielding - PoE++</p>
1	0 337 90	<p><b>Patch panels 24 connectors - to be equipped</b></p> <p>19" panels - 1U                      Equipped with rear cable guide to hold cables during maintenance</p> <p><b>Flat panel with empty cassettes to be equipped with connectors</b>                      With 4 automatically removable cassettes to be equipped with Cat. 5e to Cat. 8 RJ 45 connectors</p> <p><b>Flat panel without connectors to be equipped with cassettes</b>                      Can take a maximum of 4 automatically removable cassettes:                      - copper to be equipped with Cat. 5e to Cat. 8 RJ 45 connectors                      - fiber optic</p>

## Legrand cabling system, LCS<sup>3</sup> cat. 8

angled patch panel to be equipped with connectors



0 337 92

Pack	Cat.Nos	
1	0 337 92	<p><b>Angled patch panel with 24 connectors</b></p> <p>19" panel - 1U                      Equipped with new-generation Quick-Fix for automatic mounting (screwless) on cabinet and enclosure uprights                      Universal mounting on all cabinets or enclosures                      Panels ensure automatic earthing of each connector                      Equipped with rear cable guide to hold cables during maintenance</p> <p><b>Angled patch panel to be equipped with connectors</b>                      Can take up to 24 Cat. 5e to Cat. 8 RJ 45 connectors</p>

## Legrand cabling system, LCS<sup>3</sup> cat. 8

connector, cords and cables



Pack	Cat.Nos	
6	0 337 85	<b>Cat. 8 RJ 45 connector for flat or angled STP panel</b> Set of 6 STP RJ 45 Quick-connect connectors (no tools required) T568A and B marking with colour codes Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards To be installed in cassettes for flat panels or directly in an angled panel or a zone distribution box to be equipped
500 <sup>1</sup>	0 337 88	<b>Cat. 8 cable for local networks</b> Performance 2000 MHz Cable with 4 twisted pairs 100 Ω LSZH sheath: zero halogen EIA/TIA colour code Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards Product conforming to the CPR regulations <b>S/FTP - 4 pairs</b> Length 500 m, supplied on a drum Weight 45 kg
1 1	LSZH  RAL 6027 0 337 03 0 337 04	<b>Cat. 8 RJ 45 patch cords</b> RJ 45/RJ 45 - straight Compliant with ISO/CEI 11801 and EIA/TIA 568 standards <b>Shielded S/FTP, impedance 100 Ω</b> Length 2 m Length 3 m
200	0 518 90	<b>Marking kit</b> Kit of 200 coloured rings for marking RJ 45 cords 4 colors (green/red/yellow/blue). 50 pieces of each color Rings to be clipped onto the patch cords

1: in metre(s)

## Legrand cabling system, LCS<sup>3</sup> cat. 8

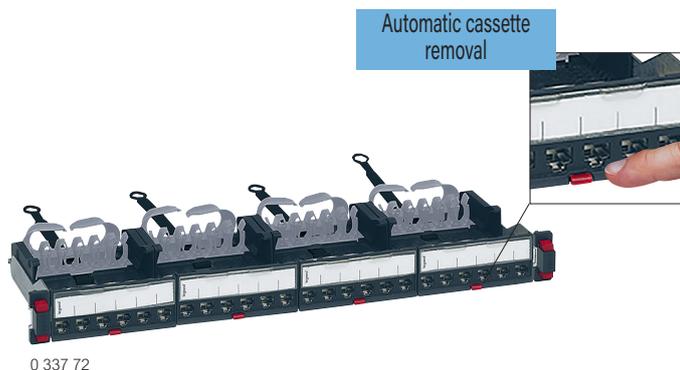
accessories



Pack	Cat.Nos	
10	0 337 56	<b>Common accessories for flat and angled panels</b> <b>Port blanking modules</b> Separable blanking plate For covering 1 to 6 ports or 1 to 12 ports individually (High Density solutions)
1	0 337 59	<b>Cord management</b> 2 cable guides to be clipped onto new-generation Quick-Fix Provide side cord management Label-holder for identification
1	0 337 55	<b>Specific accessories for flat panels</b> <b>Cassette for flat panels to be equipped</b> Removable empty cassette to be equipped with connectors, takes 6 Cat. 5e to Cat. 8 connectors Can be removed by simple pressing on the cassette, for ease of installation and maintenance For equipping flat panels
1	0 337 66	<b>Cassette with shutters for flat panels to be equipped</b> Removable empty cassette to be equipped with connectors, takes 6 Cat. 5e to Cat. 8 connectors Can be removed by simple pressing on the cassette, for ease of installation and maintenance Equipped with 6 individual shutters to protect RJ 45 connectors contacts For equipping flat panels
1	0 337 57	<b>Blanking cassette</b> To be used to fill gaps in the panel
1	0 337 58	<b>Specific accessory for angled panels</b> <b>Cover</b> Optimises air flow management in the enclosure

## Legrand cabling system, LCS<sup>3</sup> cat. 6A

### flat patch panels - equipped

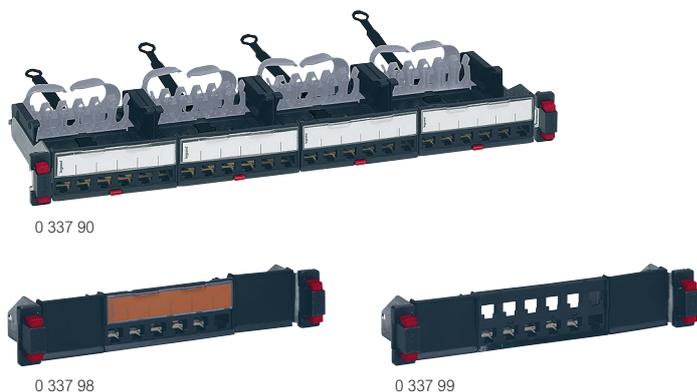


Equipped with new-generation Quick-Fix for automatic (screwless) mounting on enclosure and cabinet uprights  
 Universal mounting on all cabinets or enclosures  
 Panels ensure automatic earthing of each connector  
 Equipped with four bundles guides fixed at the rear

Pack	Cat.Nos	<b>Cat. 6A patch panels equipped with 24 RJ 45 connectors</b>
		19" panel - 1U Equipped with 4 cassettes of 6 pre-fitted Cat. 6A LCS <sup>3</sup> RJ 45 connectors Automatic cassette removal by simple pressure Each connector can be removed individually T568A and B marking with colour codes Equipped with rear cable guide to hold cables during maintenance Supplied with coloured labels Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards
		<b>Flat panels</b> 24 RJ 45 connectors - 1U - PoE++
1	0 337 70	UTP
1	0 337 72	STP

## Legrand cabling system, LCS<sup>3</sup> cat. 6A

### flat patch panels, to be equipped



Equipped with new-generation Quick-Fix for automatic (screwless) mounting on enclosure and cabinet uprights  
 Universal mounting on all cabinets or enclosures  
 Panels ensure automatic earthing of each connector  
 Equipped with four bundles guides fixed at the rear

Pack	Cat.Nos	<b>19" flat patch panels - to be equipped</b>
		19" panels - 1U Equipped with rear cable guide to hold cables during maintenance Automatic cassette removal by simple pressure Each connector can be removed individually
1	0 337 90	<b>Flat panel with empty cassettes to be equipped with connectors</b> Equipped with 4 automatically removable cassettes, takes up to 24 Cat. 5e to Cat. 8 RJ 45 connectors
1	0 337 91	<b>Empty flat panel to be equipped with cassettes</b> Takes a maximum of 4 automatically removable cassettes: - copper to be equipped with Cat. 5e to Cat. 8 RJ 45 connectors - fiber optic
1	0 337 93	<b>High Density flat panel with empty cassettes to be equipped with connectors</b> Equipped with 4 High Density cassettes, takes up to 48 Cat. 5e to Cat. 6A RJ 45 connectors
		<b>10" flat patch panels - to be equipped</b>
1	0 337 98	10" panels - 1U Takes up to 6 Cat. 5e to Cat. 8 RJ 45 connectors
1	0 337 99	Takes up to 12 Cat. 5e to Cat. 6A RJ 45 connectors

## Legrand cabling system, LCS<sup>3</sup> cat. 6A

angled patch panels to be equipped, connectors



0 337 92



0 337 94



0 337 75



Equipped with new-generation Quick-Fix for automatic (screwless) mounting on enclosure and cabinet uprights.  
 Universal mounting on all cabinets or enclosures  
 Panels ensure automatic earthing of each connector  
 Equipped with four concentric strand guides fixed at the rear

Pack	Cat.Nos	Angled patch panels - to be equipped
		19" panels - 1U
1	0 337 92	<b>Angled patch panel to be equipped with connectors</b> Takes up to 24 Cat. 5e to Cat. 8 RJ 45 connectors
1	0 337 94	<b>High Density angled panel to be equipped with connectors</b> Takes up to 48 Cat. 5e to Cat. 6A RJ 45 connectors
		<b>Cat. 6A High Density RJ 45 connectors</b> Quick-connect connection (no tools required) T568A and B marking with colour codes Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards To be installed in cassettes for flat panels or directly in an angled panel or a zone distribution box to be equipped Set of 6 RJ 45 connectors
6	0 337 73	UTP
6	0 337 75	STP

## Legrand cabling system, LCS<sup>3</sup> cat. 6A

accessories



0 337 56

0 337 59

0 337 55

0 337 66



0 337 57



0 337 58

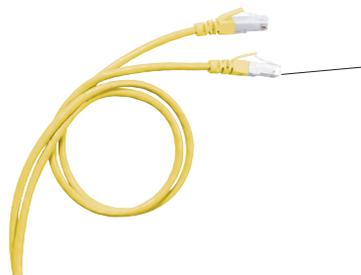
Pack	Cat.Nos	Common accessories for flat and angled panels
10	0 337 56	<b>Port blanking modules</b> Separable blanking plate For covering 1 to 6 ports or 1 to 12 ports individually (High Density solutions)
1	0 337 59	<b>Cord management</b> 2 cable guides to be clipped onto new-generation Quick-Fix Provide side cord management Label-holder for identification
		<b>Specific accessories for flat panels</b>
1	0 337 55	<b>Cassette for flat panels to be equipped</b> Removable empty cassette to be equipped with connectors, takes 6 Cat. 5e to Cat. 8 connectors Can be removed by simple pressing on the cassette, for ease of installation and maintenance For equipping flat panels
1	0 337 66	<b>Cassette with shutters for flat panels to be equipped</b> Removable empty cassette to be equipped with connectors, takes 6 Cat. 5e to Cat. 8 connectors Can be removed by simple pressing on the cassette, for ease of installation and maintenance Equipped with 6 individual shutters to protect RJ 45 connectors contacts For equipping flat panels
1	0 337 95	<b>High Density cassette for flat panels to be equipped</b> Removable empty cassette to be equipped with connectors, takes 12 Cat. 5e to Cat. 6A connectors Can be removed by simple pressing on the cassette, for ease of installation and maintenance For equipping flat panels
1	0 337 57	<b>Blanking cassette</b> To be used to fill gaps in the panel
		<b>Specific accessory for angled panels</b>
1	0 337 58	<b>Cover</b> Optimises air flow management in the enclosure

# Legrand cabling system, LCS<sup>3</sup> cat. 6A and cat. 7

## cables and cords



0 327 77



0 517 82



Easy grip

Pack	Cat.Nos	Cat. 6A cables for local networks
		Performance 500 MHz 4 twisted pair cables, 100 Ω LSZH sheath: zero halogen ANSI/TIA colour code Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards Products conforming to the CPR regulations
		<b>LSZH</b>
		<b>U/UTP - 4 pairs</b>
500 <sup>1</sup>	0 327 87	Length 500 m. Supplied on reel. Weight 35 kg Euroclass Dca
500 <sup>1</sup>	0 328 28	Length 500m. Supplied on reel. Weight 36 kg Euroclass Cca
500 <sup>1</sup>	0 328 38	Length 500m. Supplied on reel. Weight 33kg Euroclass B2ca
		<b>F/UTP - 4 pairs</b>
500 <sup>1</sup>	0 327 78	Length 500 m. Supplied on reel. Weight 29.2 kg Euroclass Dca
		<b>F/UTP - 2 x 4 pairs</b>
500 <sup>1</sup>	0 328 78	Length 500 m. Supplied on reel. Weight 58 kg Euroclass Dca
		<b>F/FTP - 4 pairs</b>
500 <sup>1</sup>	0 328 83	Length 500 m. Supplied on reel. Weight 32 kg Euroclass Cca
500 <sup>1</sup>	0 327 99	Length 500 m. Supplied on reel. Weight 26 kg Euroclass Dca
		<b>F/FTP - 2 x 4 pairs</b>
500 <sup>1</sup>	0 327 98	Length 500 m. Supplied on reel. Weight 62 kg Euroclass Dca
		<b>U/FTP - 4 pairs</b>
500 <sup>1</sup>	0 328 84	Length 500 m. Supplied on reel. Weight 39 kg Euroclass Cca

Pack	Cat.Nos	Cat. 7 cables for local networks
		Performance 600 MHz 4 twisted pair cables, 100 Ω LSZH sheath: zero halogen ANSI/TIA colour code Compliant with ISO/IEC 11 801 and EN 50173 standards Products conforming to the CPR regulations
		<b>LSZH</b>
		<b>S/FTP - 4 pairs</b>
500 <sup>1</sup>	0 328 82	Length 500 m. Supplied on reel. Weight 33 kg Euroclass B2 ca
500 <sup>1</sup>	0 328 49	Length 500m. Supplied on reel. Weight 31 kg Euroclass Cca
500 <sup>1</sup>	0 327 77	Length 500 m. Supplied on reel. Weight 30 kg Euroclass Dca
		<b>S/FTP - 2 x 4 pairs</b>
500 <sup>1</sup>	0 327 79	Length 500 m. Supplied on reel. Weight 63 kg Euroclass Dca

Pack	Cat.Nos	Cat. 7 indoor/outdoor cable for local networks
		Performance 600 MHz 4 twisted pair cable, 100 Ω LSZH sheath: zero halogen ANSI/TIA colour code Compliant with ISO/IEC 11 801 and EN 50173 standards Product conforming to the CPR regulations
		<b>LSZH</b>
		<b>S/FTP - 4 pairs - indoor/outdoor</b>
500 <sup>1</sup>	0 338 90	Length 500 m. Supplied on reel. Weight 26 kg Euroclass Eca

Pack	Cat.Nos	Cat. 6A RJ 45 patch cords and user cords
		RJ 45/RJ 45 - flat With special "easy grip" plug Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards
		<b>PVC</b>
		<b>Unscreened U/UTP, impedance 100 Ω</b>
1	0 518 82	Length 1 m
1	0 518 83	Length 2 m
1	0 518 84	Length 3 m
1	0 518 85	Length 5 m
		<b>LSZH</b>
1	0 518 78	Length 1 m
1	0 518 79	Length 2 m
1	0 518 80	Length 3 m
1	0 518 81	Length 5 m
		<b>PVC</b>
		<b>Shielded S/FTP, impedance 100 Ω</b>
1	0 518 48	Length 0.3 m
1	0 518 16	Length 0.5 m
5	0 517 80	Length 1 m
5	0 517 81	Length 2 m
5	0 517 82	Length 3 m
5	0 517 83	Length 5 m
1	0 518 49	Length 10 m
		<b>LSZH</b>
1	0 518 70	Length 1 m
1	0 518 71	Length 2 m
1	0 518 72	Length 3 m
1	0 518 73	Length 5 m
		<b>PVC</b>
1	0 518 66	Length 1 m
1	0 518 67	Length 2 m
1	0 518 68	Length 3 m
1	0 518 69	Length 5 m

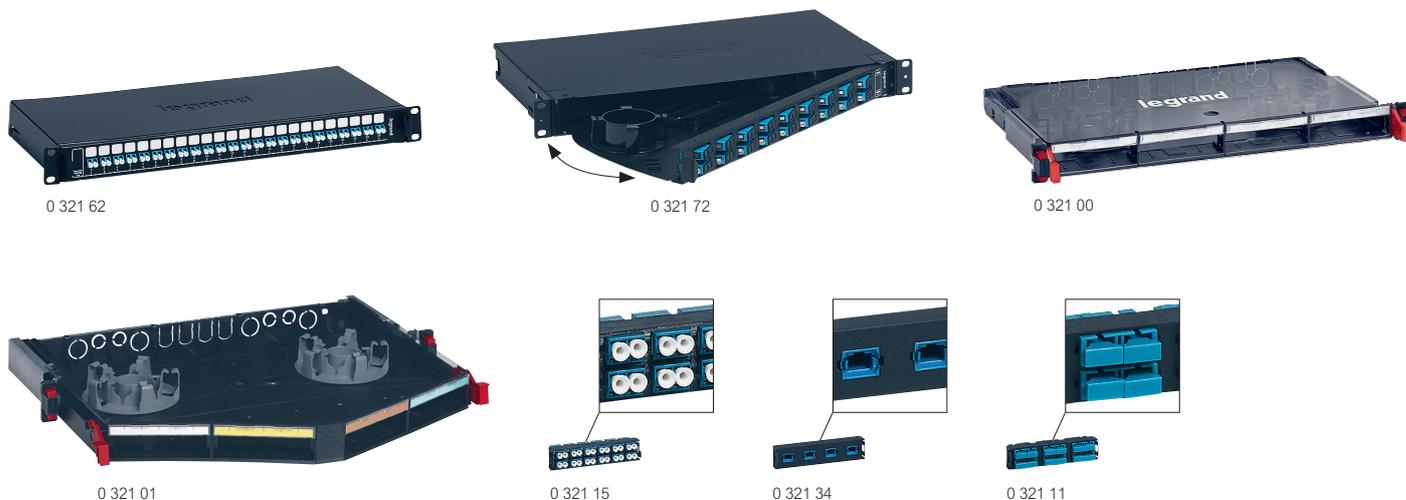
Pack	Cat.Nos	Cat. 6A RJ 45 patch cords and user cords - High Density
		RJ 45/RJ 45 - flat With special "easy grip" plug Compliant with ISO/IEC 11 801, EN 50173 and ANSI/TIA 568 standards
		<b>LSZH</b>
		<b>Shielded S/FTP, impedance 100 Ω</b>
1	0 515 50	Length 0.5 m
1	0 515 51	Length 1 m
1	0 515 52	Length 2 m
1	0 515 53	Length 3 m
1	0 515 54	Length 5 m

Pack	Cat.Nos	Marking kit
200	0 518 90	Kit of 200 coloured rings for marking RJ 45 cords 4 colors (green/red/yellow/blue). 50 pieces of each color Rings to be clipped onto the patch cords

1: in metre(s)

# Legrand cabling system, LCS<sup>3</sup> fiber optic

## 19" fiber optic drawers



Pack	Cat.Nos	Equipped 19" fiber optic drawers
		<p>Metal 19" pre-equipped fiber optic drawers, 4 cable entries, supplied with screw fixing kit, 2 cable glands (Ø 13.5 and 16 mm), coiling system and splice cassette</p> <p>Panel and optical ports marked on dedicated marking area</p> <p><b>Sliding</b></p> <p>End stop at a 30° angle</p> <p>Maximum capacity: 48 fibers in LC version, 24 fibers in ST and SC versions</p> <p>Depth 220 mm, height 1 U</p>
1	0 321 61	SC duplex for 24 multimode fibers
1	0 321 62	LC duplex for 48 multimode fibers
1	0 321 63	ST duplex for 24 multimode fibers
1	0 321 64	SC duplex for 24 single-mode fibers
1	0 321 65	LC duplex for 48 single-mode fibers
1	0 321 66	SC APC duplex for 24 single-mode fibers
1	0 321 67	LC APC duplex for 48 single-mode fibers
		<p><b>Rotating</b></p> <p>Supplied with reversible left or right opening</p> <p>Maximum capacity: 72 fibers in LC version, 36 fibers in SC version</p> <p>Depth 260 mm, height 1 U</p>
1	0 321 71	LC duplex for 72 multimode fibers
1	0 321 72	SC duplex for 36 multimode fibers
1	0 321 73	LC duplex for 72 single-mode fibers
1	0 321 74	SC duplex for 36 single-mode fibers

Pack	Cat.Nos	Flat and angled 19" modular fiber optic drawers
		<p>Metal 19" modular fiber optic drawers, 8 cable entries, supplied with 2 cable glands (Ø 13.5 and 9 mm), coiling system</p> <p>Equipped with the new-generation Quick-Fix system for automatic (screwless) mounting on enclosure or cabinet uprights</p> <p>Supplied with numbered labels</p> <p>Maximum capacity: 96 fibers in LC version, 48 in SC version or 24 in ST version</p> <p>Depth 290 mm, height 1U</p> <p><b>Sliding, equipped</b></p> <p>End stop at a 20° angle</p>
1	0 321 02	SC duplex for 24 multimode fibers
1	0 321 04	LC duplex for 48 multimode fibers
1	0 321 06	SC duplex for 24 single-mode fibers
		<p><b>Sliding, to be equipped with fiber optic blocks</b></p> <p>Takes any fiber optic block, up to 4 blocks maximum.</p> <p>End stop at a 20° angle</p>
1	0 321 00	Empty drawer
		<p><b>Sliding, to be equipped with fiber optic blocks - angled</b></p> <p>Takes any fiber optic block, up to 4 blocks maximum.</p> <p>End stop at a 20° angle</p>
1	0 321 01	Empty drawer

Pack	Cat.Nos	Fiber optic blocks
		<p>To be clipped directly onto modular fiber optic drawers to be equipped Cat.Nos 0 321 00/01 or onto fiber optic splice cassette Cat.No 0 321 41</p> <p><b>Single-mode fiber blocks (9/125 µm)</b></p>
1	0 321 17	ST block for 6 single-mode fibers
1	0 321 10	SC duplex block for 6 single-mode fibers
1	0 321 11	SC duplex High Density block for 12 single-mode fibers
1	0 321 12	SC APC duplex block for 6 single-mode fibers
1	0 321 13	LC duplex block for 6 single-mode fibers
1	0 321 14	LC duplex block for 12 single-mode fibers
1	0 321 15	LC duplex High Density block for 24 single-mode fibers
1	0 321 16	LC APC duplex block for 12 single-mode fibers
1	0 321 33	Single-mode 4 MTP <sup>1</sup> feedthrough adaptor, key up/ key down
1	0 321 19	Single-mode 8 MTP <sup>1</sup> feedthrough adaptor, key up/ key down
		<p><b>Multimode fiber blocks (62.5 and 50/125 µm)</b></p>
1	0 321 27	ST block for 6 multimode fibers
1	0 321 20	SC duplex block for 6 multimode fibers
1	0 321 21	SC duplex High Density block for 12 multimode fibers
1	0 321 23	LC duplex block for 6 multimode fibers
1	0 321 24	LC duplex block for 12 multimode fibers
1	0 321 25	LC duplex High Density block for 24 multimode fibers
1	0 321 34	Multimode 4 MTP <sup>1</sup> feedthrough adaptor, key up/ key down
1	0 321 18	Multimode 8 MTP <sup>1</sup> feedthrough adaptor, key up/ key down
1	0 321 36	LC duplex block for 6 multimode fibers - aqua
1	0 321 37	LC duplex block for 12 multimode fibers - aqua

Pack	Cat.Nos	RJ 45 copper block for fiber optic drawer
1	0 321 32	<p>To be clipped directly onto modular fiber optic drawers to be equipped Cat.Nos 0 321 00/01</p> <p>Allows the mixing of fiber optic and copper</p> <p>Takes up to 5 RJ 45 connectors</p>

Pack	Cat.Nos	Accessories for fiber optic drawer to be equipped
		<p><b>Accessory for receipt of a fan-out</b></p>
1	0 321 28	<p>To be clipped onto the back of the drawer</p> <p>Enables the entry of preterminated links</p>
		<p><b>Blanking plate</b></p>
1	0 321 29	Blanking plate
		<p><b>Cassette for pigtails</b></p>
1	0 321 30	Cassette for pigtails
		<p><b>Coiling kit</b></p>
1	0 321 31	1 accessory

1: MTP is a registered trademark of US Conec Ltd

# Legrand cabling system, LCS<sup>3</sup> fiber optic

## 19" High Density fiber optic panels (1/2/4 U) and patching kits



Panel 0 321 76 equipped with support 0 321 38 and slim cassettes 0 321 69/70



0 321 38



0 321 69

OM5 on request



0 321 70

Pack	Cat.Nos	19" High Density fiber optic panels
		<b>Panels to be equipped with cassettes</b>
		Equipped with Quick-Fix system for automatic (screwless) mounting on enclosure or cabinet uprights
		To be equipped directly with a maximum of 4 automatically removable cassettes or 4 supports for slim cassettes Cat. No 0 321 38 per U
		Maximum capacity per U: 48 fibers in SC version, 24 fibers in ST version or 96 fibers in LC version
		2U and 4U versions equipped with door and cord management at the front, and with cable management at the back
1	0 321 75	1 U height, depth 182 mm
1	0 321 76	2 U height, depth 393 mm
1	0 321 77	4 U height, depth 393 mm
		<b>Accessories for panels</b>
1	0 321 78	Front cord management kit for 1 U panel Fits on 1 U modular panel Cat.No 0 321 75 2 side cord guides and front door with integrated marking to ensure correct front and side cord management Cord holder to be mounted on cassette to make it easier to pass cords through the side
1	0 321 46	Rear cable management accessory Fits on 1 U panel Cat. No 0 321 75
1	0 321 28	Accessory for receipt of a fan-out To be clipped onto the back of the drawer Enables the entry of preterminated links
1	0 321 22	Copper cable management accessory
4	0 321 26	Set of 4 cord holders To be mounted on any cassette to make it easier to pass cords through the side
1	0 321 05	Rear accessory for fixing 4 cable glands
		<b>Ultra™ preterminated MTP<sup>1</sup> High Density cassettes (MPO compatible)</b>
		For installation in modular panels Cat. Nos 0 321 75/76/77 and in Zero-U kit Cat. No 0 321 03
		Slim cassettes to be installed with support Cat. No 0 321 38
		Sliding cassettes which can be removed automatically by simply pressing them, simplifying installation and maintenance
		Removable from the front and back
		Multimode - Insertion Loss Max/Random <sup>2</sup> : 0.55 dB
		Single-mode - Insertion Loss Max/Random <sup>2</sup> : 0.6 dB
		Prewired, equipped at the rear with one or two male MTP <sup>1</sup> connectors with 12 fibers
		LC or SC connectors at the front
1	0 321 42	<b>Ultra™ cassettes</b> Multimode OM4 cassette (50/125 μm) 24 LC fibers, A/C polarity
1	0 321 48	Multimode OM4 cassette (50/125 μm) 12 LC fibers, A/C polarity
1	0 321 43	Multimode OM4 cassette (50/125 μm) 12 SC fibers, A/C polarity
1	0 321 59	Multimode OM4 cassette (50/125 μm) 12 SC fibers, universal
1	0 321 44	Single-mode OS2 cassette (9/125 μm) 24 LC fibers, A/C polarity
1	0 321 49	Single-mode OS2 cassette (9/125 μm) 12 LC fibers, A/C polarity
1	0 321 45	Single-mode OS2 cassette (9/125 μm) 12 SC fibers, A/C polarity
1	0 321 60	Single-mode OS2 cassette (9/125 μm) 12 SC fibers, universal

1: MTP is a registered trademark of US Conec Ltd  
2: When mated with the same Legrand range (Ultra & Core) trunks and patch cords

Pack	Cat.Nos	Preterminated MTP <sup>1</sup> High Density cassettes (MPO compatible) (continued)
		<b>Ultra™ slim cassettes</b>
1	0 321 38	Support for High Density slim cassettes Takes up to 2 High Density slim cassettes Cat.Nos 0 321 68/69/70 and up to 2 blanking cassettes Cat.No 0 321 39 or 1 cassette + 1 blanking cassette Possibility to mix slim single-mode and multimode cassettes on the same support
1	0 321 69	Slim multimode OM4 cassette (50/125 μm) 12 LC fibers, Universal polarity
1	0 321 68	Slim multimode OM3 cassette (50/125 μm) 12 LC fibers, Universal polarity
1	0 321 70	Slim single-mode OS2 cassette (9/125 μm) 12 LC fibers, Universal polarity
1	0 321 39	Slim blanking module to be mounted (x2) on support Cat.No 0 321 38 to fill gaps in the panel
		<b>Core™ pre-equipped cassettes</b>
		For installation in modular panels Cat. Nos 0 321 75/76/77 and Zero-U kit Cat.No 0 321 03
		Pre-equipped cassettes with fitted fiber optic block + sets of 6 or 12 OM3 pigtails
		Sliding cassettes which can be removed automatically by simply pressing them, simplifying installation and maintenance
		Removable from the front
		<b>Pre-equipped cassettes for multimode installation (50/125 μm)</b>
1	0 321 80	Equipped with 1 SC duplex block for 6 fibers
1	0 321 81	Equipped with 1 LC duplex block for 6 fibers
1	0 321 82	Equipped with 1 SC duplex block for 12 fibers
1	0 321 83	Equipped with 1 LC duplex block for 12 fibers
		<b>Pre-equipped cassettes for single-mode installation (9/125 μm)</b>
1	0 321 84	Equipped with 1 SC duplex block for 6 fibers
1	0 321 85	Equipped with 1 LC duplex block for 6 fibers
1	0 321 86	Equipped with 1 SC duplex block for 12 fibers
1	0 321 87	Equipped with 1 LC duplex block for 12 fibers
		<b>Cassettes to be equipped and blanking plate</b>
		For installation in modular panels Cat. Nos 0 321 75/76/77 and Zero-U kit Cat. No 0 321 03
		Sliding cassettes which can be removed automatically by simply pressing them, simplifying installation and maintenance
		Removable from the front
1	0 321 41	<b>Fiber optic splice cassette</b> Takes any modular fiber optic block
1	0 337 57	<b>Blanking cassette</b> To be used to fill gaps in the panel
1	0 321 55	<b>Copper cassette to be equipped</b> Takes six Cat. 5e, 6 and 6A copper connectors
		<b>Patching kits</b>
1	0 321 89	<b>1 U to 4 U patching kit</b> Compatible with all LCS <sup>3</sup> fiber optic and copper 19" panels Supplied with top protection, cable guides and specific accessories for installation on cable trays, wire meshed cable trays (Cablofil) and cabinets
1	0 321 03	<b>Zero-U patching kit</b> To bring few fiber optic or copper connections outside 19" panels Takes 1 cassette (fiber optic preterminated cassettes, pre equipped cassettes, fiber optic splice cassette or RJ 45 copper cassette) Supplied with a comprehensive range of accessories for fixing in or outside enclosures (raised access floors, cable trays, walls, ceiling)

# Legrand cabling system, LCS<sup>3</sup> fiber optic

## cables



0 325 13



0 325 10



0 326 66

Colour code: FOTAG

Compliant with EN 50173-2 and ISO IEC 11801 standards

Packed on a 2000 m reel except for tight-buffer OM4

Tight-buffer: "easy strip"

Other configurations on request

Pack	Cat.Nos		<b>Single-mode OS2 fiber optic cables (9/125 μm) - (OS1 compatible)</b> For 9/125 μm single-mode installations, OS2 type <b>Indoor/Outdoor</b> Yellow LSZH sheath Glass strands
	Loose tube	Tight-buffer 900 μm	
2000 <sup>1</sup>	0 325 02	0 325 50	4 fibers - Euroclass Dca
2000 <sup>1</sup>	0 325 12		6 fibers - Euroclass Dca
2000 <sup>1</sup>	0 325 03		8 fibers - Euroclass Dca
2000 <sup>1</sup>	0 325 14		12 fibers - Euroclass Dca
2000 <sup>1</sup>	0 325 26		12 fibers - Euroclass Cca
2000 <sup>1</sup>	0 325 51		24 fibers - Euroclass Dca
1000 <sup>1</sup>	0 325 18		24 fibers - Euroclass Cca
2000 <sup>1</sup>	0 325 23		4 fibers
2000 <sup>1</sup>	0 325 13		6 fibers
2000 <sup>1</sup>	0 325 24		8 fibers
2000 <sup>1</sup>	0 325 15	12 fibers	
2000 <sup>1</sup>	0 325 25	24 fibers	

Pack	Cat.Nos		<b>Multimode OM4 fiber optic cables (50/125 μm)</b> For 50/125 μm multimode installations, OM4 type Suitable for 10 Gb Ethernet networks Bend insensitive <b>Indoor/Outdoor</b> Aqua LSZH sheath Glass strands
	Loose tube	Tight-buffer 900 μm	
2000 <sup>1</sup>	0 325 43	0 326 65	4 fibers - Euroclass Dca
500 <sup>1</sup>		0 326 66	6 fibers - Euroclass Dca - 500 m drum
1000 <sup>1</sup>	0 325 44	0 326 67	6 fibers - Euroclass Dca - 1000 m drum
2000 <sup>1</sup>			8 fibers - Euroclass Dca
2000 <sup>1</sup>			12 fibers - Euroclass Dca
2000 <sup>1</sup>			12 fibers - Euroclass Cca
1000 <sup>1</sup>	0 325 19	0 326 68	12 fibers - Euroclass Dca - 1000 m drum
1000 <sup>1</sup>		24 fibers - Euroclass Dca - 1000 m drum	
1000 <sup>1</sup>		24 fibers - Euroclass Cca - 1000 m drum	
2000 <sup>1</sup>	0 325 46		<b>Outdoor</b> Black PE sheath Glass strands for rodent-proofing, reinforced with corrugated steel
2000 <sup>1</sup>	0 325 47		4 fibers
2000 <sup>1</sup>	0 325 48		8 fibers
			12 fibers

Pack	Cat.Nos		<b>Multimode OM3 fiber optic cables (50/125 μm)</b> For 50/125 μm multimode installations, OM3 type Suitable for 10 Gb Ethernet networks Bend insensitive <b>Indoor/Outdoor</b> Aqua LSZH sheath Glass strands Euroclass Dca
	Loose tube	Tight-buffer 900 μm	
2000 <sup>1</sup>	0 325 37	0 325 10	4 fibers
2000 <sup>1</sup>			6 fibers
2000 <sup>1</sup>			8 fibers
2000 <sup>1</sup>			12 fibers
2000 <sup>1</sup>			24 fibers
2000 <sup>1</sup>	0 325 38	0 325 11	12 fibers
2000 <sup>1</sup>	0 325 39	0 325 52	24 fibers
2000 <sup>1</sup>	0 325 53		<b>Outdoor</b> Black PE sheath Glass strands for rodent-proofing, reinforced with corrugated steel
2000 <sup>1</sup>	0 325 40		8 fibers
2000 <sup>1</sup>	0 325 41		12 fibers
2000 <sup>1</sup>	0 325 42		24 fibers

1: in metre(s)

## Legrand cabling system, LCS<sup>3</sup> fiber optic

### Core™ fiber patch cords



Fitted at each end with 2 connectors with ceramic ferrule  
 Individually packed and tested (report supplied)  
 Max. optical losses/Master: 0.25 dB  
 LSZH Zipcord sheath

## Legrand cabling system, LCS<sup>3</sup> fiber optic

### Ultra™ fiber patch cords



Fitted at each end with 2 connectors with ceramic ferrule  
 Individually packed and tested (report supplied)  
 Max. optical losses/Master: 0.15 dB  
 LSZH Zipcord sheath

#### Pack Cat.Nos OS2 single-mode fiber optic cords (9/125 μm)

Pack	Cat.Nos	Description
		For 9/125 μm single-mode installations, OS2 type Yellow sheaths
		<b>SC/SC duplex cords</b>
3	0 326 00	Length: 1 m
3	0 326 01	Length: 2 m
3	0 326 02	Length: 3 m
		<b>SC/LC duplex cords</b>
3	0 326 03	Length: 1 m
3	0 326 04	Length: 2 m
3	0 326 05	Length: 3 m
		<b>LC/LC duplex cords</b>
3	0 326 28	Length: 0.5 m
3	0 326 06	Length: 1 m
3	0 326 07	Length: 2 m
3	0 326 08	Length: 3 m
3	0 326 29	Length: 5 m

#### Pack Cat.Nos OM3 multimode fiber optic cords (50/125 μm)

Pack	Cat.Nos	Description
		For 50/125 μm multimode installations, OM3 type Aqua sheaths
		<b>SC/SC duplex cords</b>
3	0 326 09	Length: 1 m
3	0 326 10	Length: 2 m
3	0 326 11	Length: 3 m
		<b>SC/LC duplex cords</b>
3	0 326 12	Length: 1 m
3	0 326 13	Length: 2 m
3	0 326 14	Length: 3 m
		<b>LC/LC duplex cords</b>
3	0 326 15	Length: 1 m
3	0 326 16	Length: 2 m
3	0 326 17	Length: 3 m

#### Pack Cat.Nos OM4 multimode fiber optic cords (50/125 μm)

Pack	Cat.Nos	Description
		For 50/125 μm multimode installations, OM4 type Aqua sheaths
		<b>SC/SC duplex cords</b>
5	0 322 60	Length: 1 m
5	0 322 61	Length: 2 m
5	0 322 62	Length: 3 m
		<b>SC/LC duplex cords</b>
5	0 322 63	Length: 1 m
5	0 322 64	Length: 2 m
5	0 322 65	Length: 3 m
		<b>LC/LC duplex cords</b>
5	0 322 66	Length: 1 m
5	0 322 67	Length: 2 m
5	0 322 68	Length: 3 m

#### Pack Cat.Nos OS2 single-mode fiber optic cords (9/125 μm)

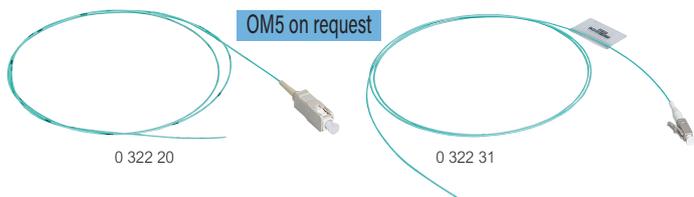
Pack	Cat.Nos	Description
		For 9/125 μm single-mode installations, OS2 type Yellow sheaths
		<b>SC/SC duplex cords</b>
5	0 325 27	Length: 1 m
5	0 325 28	Length: 2 m
5	0 325 29	Length: 3 m
		<b>SC/LC duplex cords</b>
5	0 325 30	Length: 1 m
5	0 325 31	Length: 2 m
5	0 325 32	Length: 3 m
		<b>LC/LC duplex cords</b>
5	0 325 33	Length: 1 m
5	0 325 34	Length: 2 m
5	0 325 35	Length: 3 m
5	0 325 36	Length: 5 m
		<b>LC/LC Uniboot duplex cords</b> Reversible polarity
3	0 326 86	Length: 1 m
3	0 326 87	Length: 2 m
3	0 326 88	Length: 3 m
3	0 326 89	Length: 5 m
3	0 326 92	Length: 10 m

#### Pack Cat.Nos OM4 multimode fiber optic cords (50/125 μm)

Pack	Cat.Nos	Description
		For 50/125 μm multimode installations, OM4 type Aqua sheaths
		<b>SC/SC duplex cords</b>
3	0 326 30	Length: 1 m
3	0 326 31	Length: 2 m
3	0 326 32	Length: 3 m
		<b>LC/LC duplex cords</b>
3	0 326 33	Length: 0.5 m
3	0 326 34	Length: 1 m
3	0 326 35	Length: 2 m
3	0 326 36	Length: 3 m
3	0 326 37	Length: 5 m
		<b>LC/LC Uniboot duplex cords</b> Reversible polarity
3	0 326 95	Length: 0.5 m
3	0 326 96	Length: 1 m
3	0 326 97	Length: 2 m
3	0 326 98	Length: 3 m
3	0 326 99	Length: 5 m

# Legrand cabling system, LCS<sup>3</sup> fiber optic

## pigtails, glue-on connectors and fan-out units



Pack	Cat.Nos		Core™ pigtails
			<p>LSZH For making quick, reliable and high-performance fiber optic cable connections on site:</p> <ul style="list-style-type: none"> <li>- OM2/OM3/OM4 IL Typical/Master = 0.15 dB</li> <li>- OS2 IL Typical/Master = 0.18 dB</li> </ul> <p>Compatible with all commercially-available splicers</p>
1	1 m	2 m	<p><b>50/125 µm - OM3 (PC)</b> SC connectors LC connectors ST connectors</p>
1	0 322 20	0 322 23	
1	0 322 21	0 322 24	
1	0 322 22		<p><b>50/125 µm - OM4 (PC)</b> SC connectors LC connectors ST connectors</p>
1	0 322 30	0 322 33	
1	0 322 31	0 322 34	
1	0 322 32		<p><b>9/125 µm - OS2 (APC or UPC) - OS1 compatible</b> SC-APC connectors SC-UPC connectors LC-APC connectors LC-UPC connectors ST-UPC connectors</p>
1	0 322 40	0 322 45	
1	0 322 41	0 322 46	
1	0 322 42	0 322 48	
1	0 322 43	0 322 47	
1	0 322 44	0 322 49	

Pack	Cat.Nos	Sets of 12 LC pigtails
1	0 326 24	1m length - 12 different colors
1	0 326 26	12 OS2 LC-UPC pigtails
1	0 326 71	12 OM3 LC-UPC pigtails 12 OM4 LC-UPC pigtails

Pack	Cat.Nos	Heat-shrinkable sleeve for pigtails
1	0 327 44	40 mm - pack of 50 sleeves

Pack	Cat.Nos	50/125 and 62,5/125 µm glue-on connectors
10	0 331 47	Supplied with 900 µm sleeve Connectors with ceramic ferrule Typical attenuation: 0.3 dB
10	0 331 00	SC connectors LC connectors

Pack	Cat.Nos	Fan-out units
1	0 330 48	For 900 µm sheathing of optical fibers Take 250 µm fiber diameters
1	0 330 49	6-fiber fan-out unit 12-fiber fan-out unit

# Legrand's 25-year warranty for applications & performance



Confident in the quality of our solutions, Legrand guarantees the applications and performance of our copper and fiber cabling systems for 25 years.

Subject to certain conditions described hereafter, the “25-year application warranty” provides assurance that all expected applications function on the Legrand structured cabling solutions for a period of 25 years, and the “25-year performance warranty” provides assurance of correct functioning of the Legrand structured cabling solutions for a period of 25 years.

## ■ 25-YEAR APPLICATION WARRANTY

Legrand offers the end user the guarantee that **all applications defined in the standards will function on the corresponding channel\*** of copper and fiber of Legrand structured cabling solutions. If the PoE option is requested, Legrand also guarantees distances for the copper applications under PoE.

For 25 years, Legrand guarantees, subject to certain cumulative conditions of assignment, all applications defined for corresponding channels of the Legrand structured cabling solutions composed of:

- Class E (Cat. 6), Class Ea (Cat.6A), Class I (Cat. 8.1) channels for copper
- OM3, OM4, OM5, OS1a / OS2 channels for fiber optic

Note: fiber applications are length and budget dependent.

## ■ 25-YEAR PERFORMANCE WARRANTY

Legrand offers the end user the guarantee **all permanent links and channels\*** (copper and fiber) from Legrand structured cabling solutions **will comply to standards for a period of 25 years.**

For 25 years, Legrand guarantees, subject to certain cumulative conditions of assignment, the performances of Legrand structured cabling solutions system classified as:

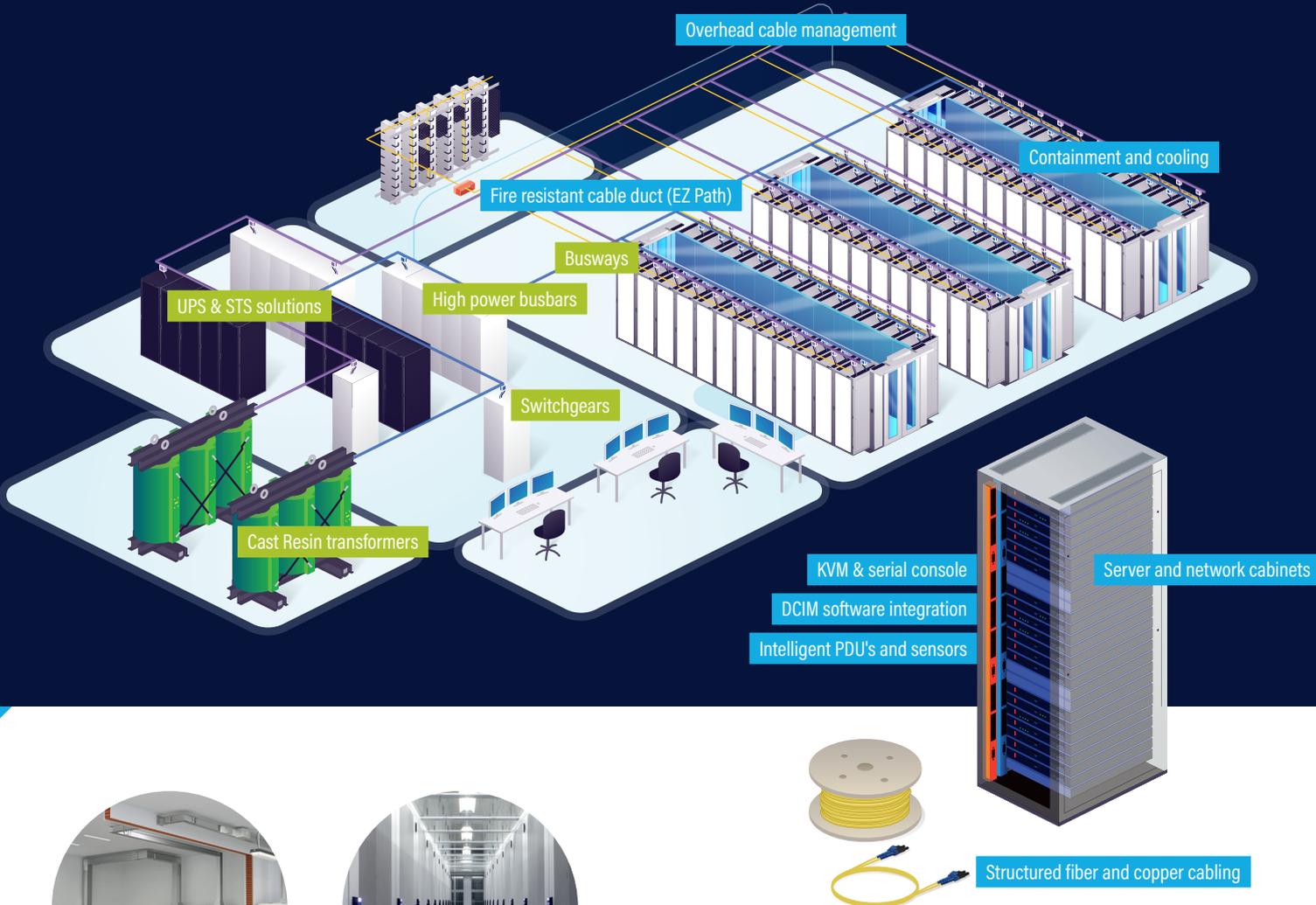
- Class E (Cat. 6), Class Ea (Cat.6A), Class I (Cat. 8.1) permanent links for copper
- OM2, OM3, OM4, OS1 and OS2 for fiber optic

\* Channels are assemblies of the following components :

- copper: connectors, cables, field installable plugs, cords, preterminated cables
- fiber optic: pigtails, couplers, cables, cords, preterminated cable, cassettes



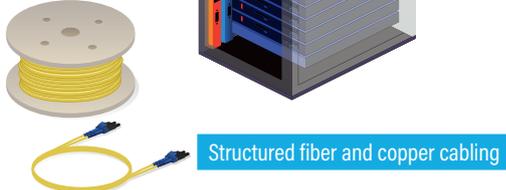
# OUR DATA CENTER GLOBAL OFFER



**GREY SPACE**



**WHITE SPACE**



**Structured fiber and copper cabling**

**Covering all your IT infrastructure, cable management, and critical power needs!**

With award-winning solutions from strong data center players, you benefit from optimal uptime of mission-critical operations. Our team of local specialists design and build innovative solutions, including enclosures, cooling, power, structured cabling, and access management, to meet your unique requirements.

**OUR SPECIALIST BRANDS**

**legrand**

Complete global solutions for digital and electrical infrastructure.

**BORRI**

Specialist in UPS for industrial applications and datacenters.

**CABLOFIL**

Using its global strength and market leading position, Cablofil has developed a complete range of cable management solutions.

**COMPOSE**

Specialist in passive data communication solutions, cabling of data centers, buildings and fiber optic infrastructures.

**GEIGER**

Data center fiber optic infrastructures, data center design and DCIM (monitoring & management) service and implementation.

**MINKELS**

Turn-key hot/cold aisle containment and enclosures for data center infrastructures.

**modulan**

Provider of fully customizable containment solutions. Maximum flexibility to cover customer needs.

**PowerControl**

A leading provider of uninterruptible power supply (UPS) solutions, trusted by businesses worldwide to protect their critical power loads and avoid unplanned business downtime.

**Raritan.**

Proven leader of intelligent PDUs, transfer switches, environmental sensors, serial consoles and KVM-over-IP Remote Access switches.

**Server Technology.**

Leading specialist in customer-driven power, access and control solutions for monitoring and managing critical IT assets.

**Starline.**

Starline has grown to become a global leader in busbar power distribution equipment

**USystems**  
A brand of legrand

USystems provide cooling products that enhance data center cooling, providing these to global businesses, making their data centers more environmentally friendly.

**VOLTADIS**

Voltadis offers support in electrical power supply systems for data centers' grey rooms including design, commissioning, equipment supply, and installation.

**ZUCCHINI**

Zucchini has become a leading brand of cast resin transformers, offering one of the most comprehensive ranges on the market.

# NOTES

NOTES



# We Go Further.

Managing a data center is **complex**. It requires careful consideration of a range of factors to ensure **performance, reliability, scalability, and sustainability**.

To help you **navigate these challenges**, we offer tailored **grey and white space** solutions at scale to meet individual needs through our **specialist brands** that include **Minkels, Raritan, Server Technology, Starline, and USystems**.

Our approach combines **technical expertise** with a deep commitment to **sustainability**, helping you **optimize data center performance** while reducing environmental impact. We build enduring partnerships with our clients grounded in **trust, collaboration, and shared aspirations**. Whether **improving reliability** or **increasing efficiency**, we work to ensure that every detail is correct.

With our support, you can approach the **future with confidence**, knowing that your data center is ready for what's next.

#LegrandImprovingLives

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**DATA CENTER  
SOLUTIONS**



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