

WHITE SPACE

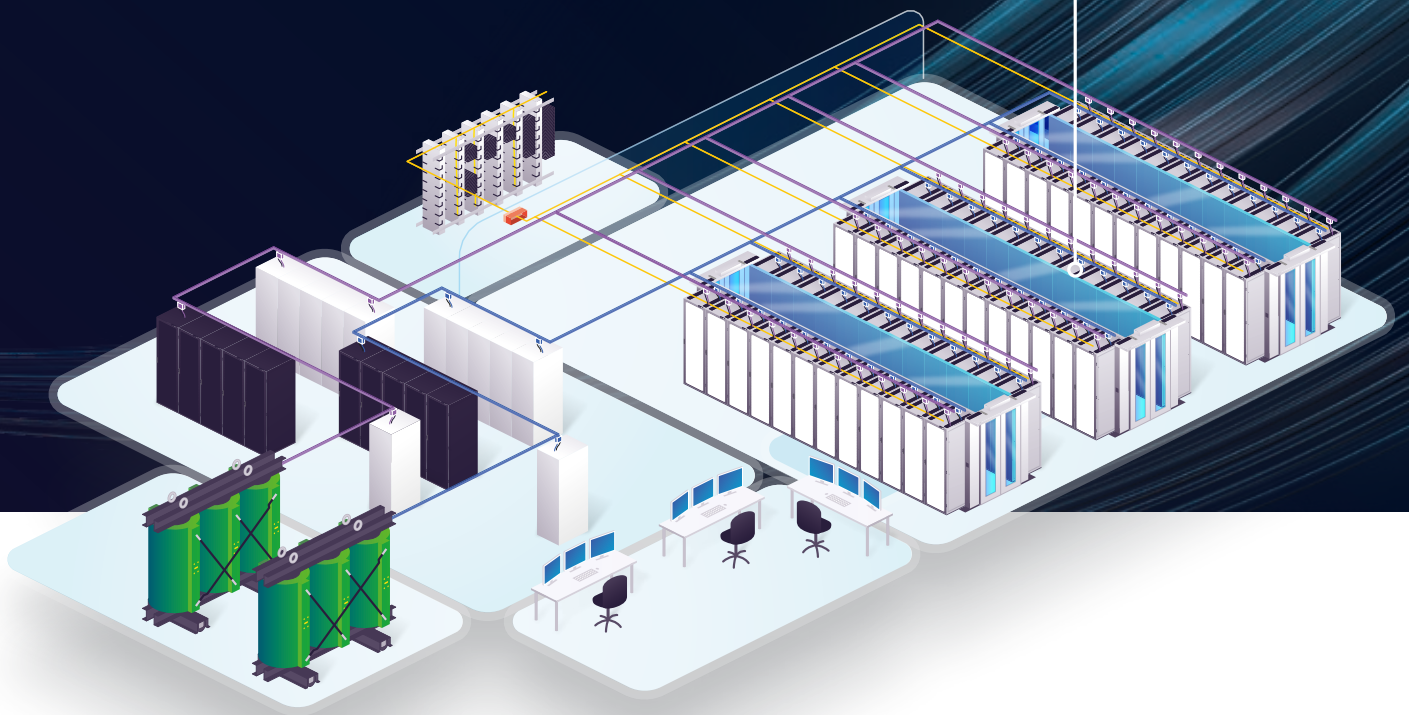
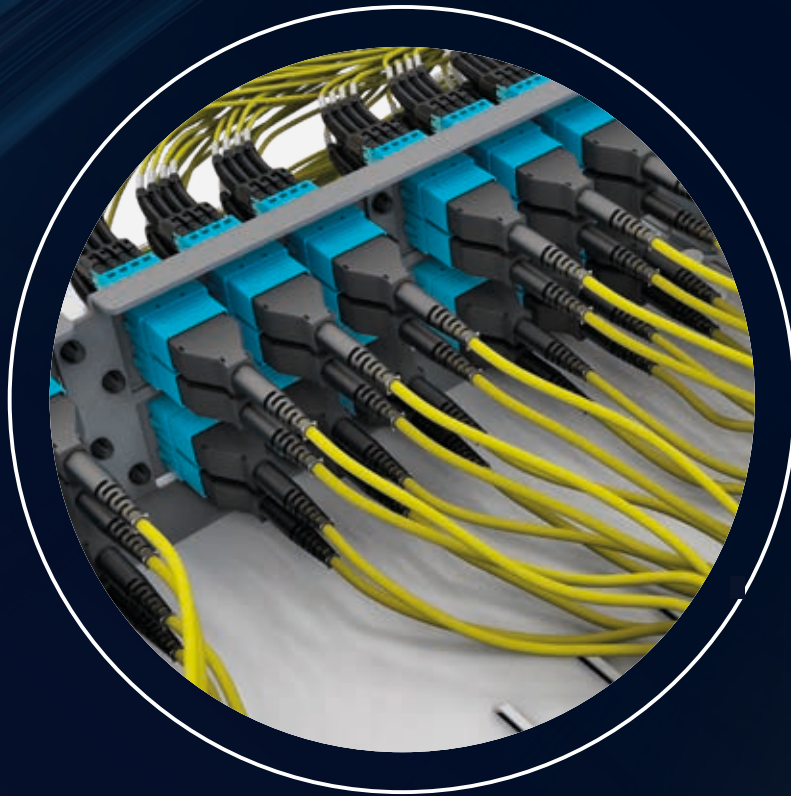
# STRUCTURED CABLING

ADVANCED  
CONNECTIVITY  
FIBER SOLUTIONS



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





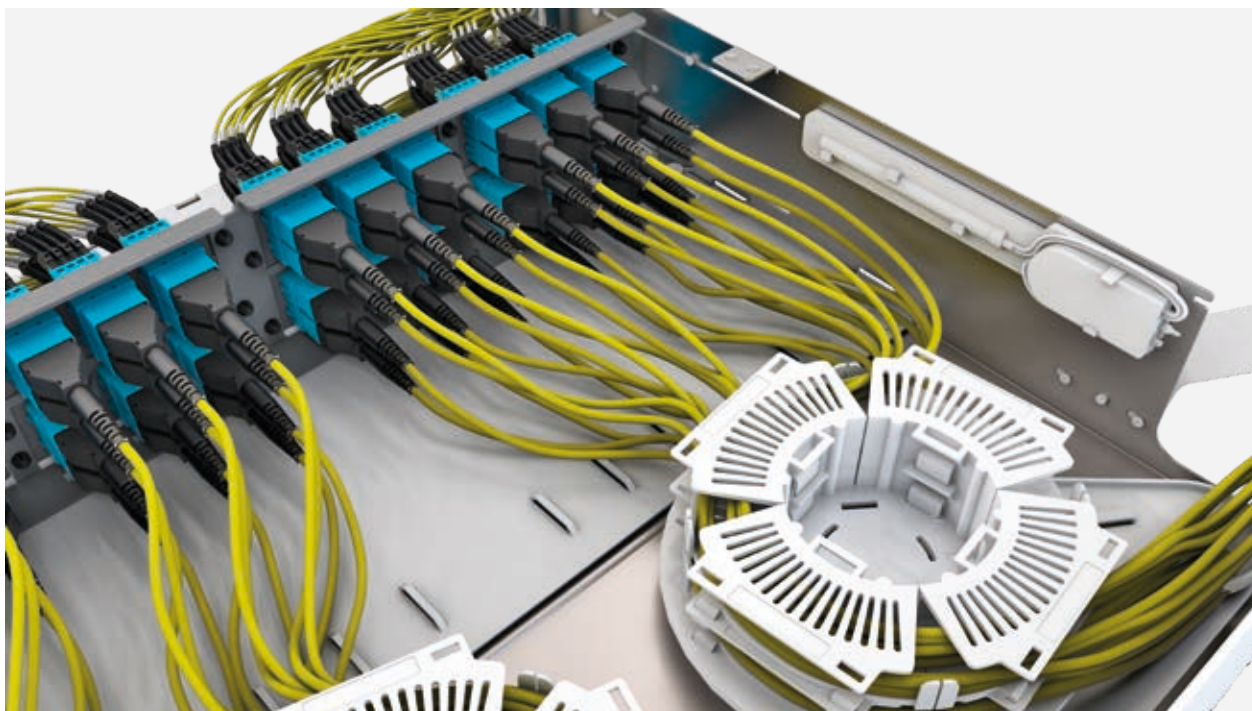


**Bandwidths in data centres are constantly increasing. The technology for transmitting data rates of up to 400 GBit/s and beyond is already in the starting blocks. Parallel to the data rates, the requirements for cabling solutions are also increasing. Those who want to make the fiber optic network in 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 Infinium acclAIM cabling system closes exactly this gap and at the same time increases link performance many times over.



# Infinium acclAIM fiber solutions

Infinium acclAIM redefines connectivity by replacing pre-terminated cassette-based solutions with direct connections eliminating components, process, and cost. Infinium 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.

# INFINIUM 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, Infinium 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

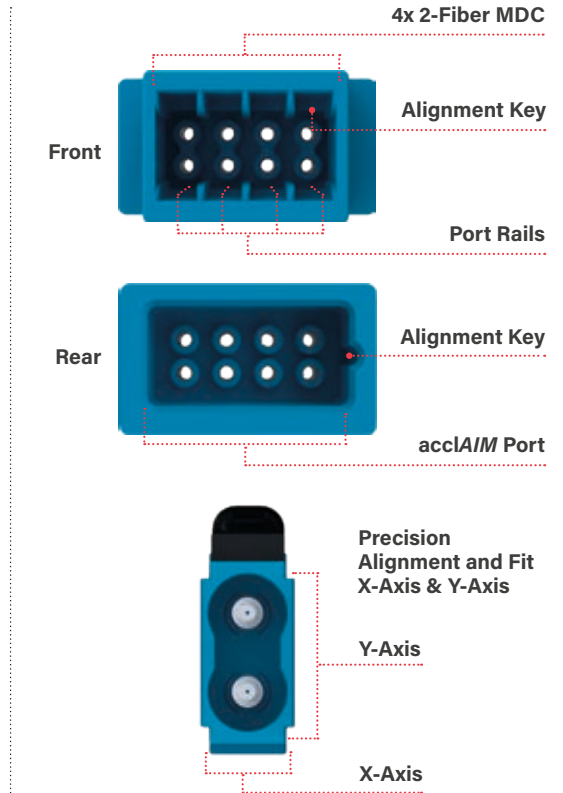
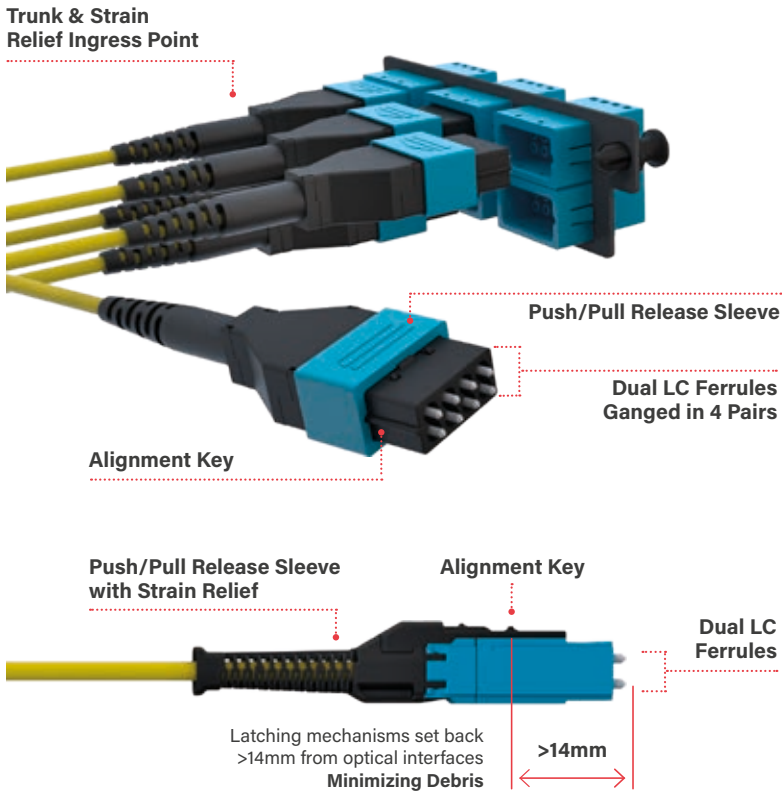
**CUT** COST.  
**CUT** COMPLEXITY.  
**CUT** CASSETTES.



## REDUCE LABOR - LOWER COST

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

# INFINIUM acclA/M SOLUTION COMPONENTS



# INFINIUM acclAIM CONNECTOR COMPARISON

Infinium 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>			

# INFINIUM acclAIM SIMPLIFIED INTERFACE

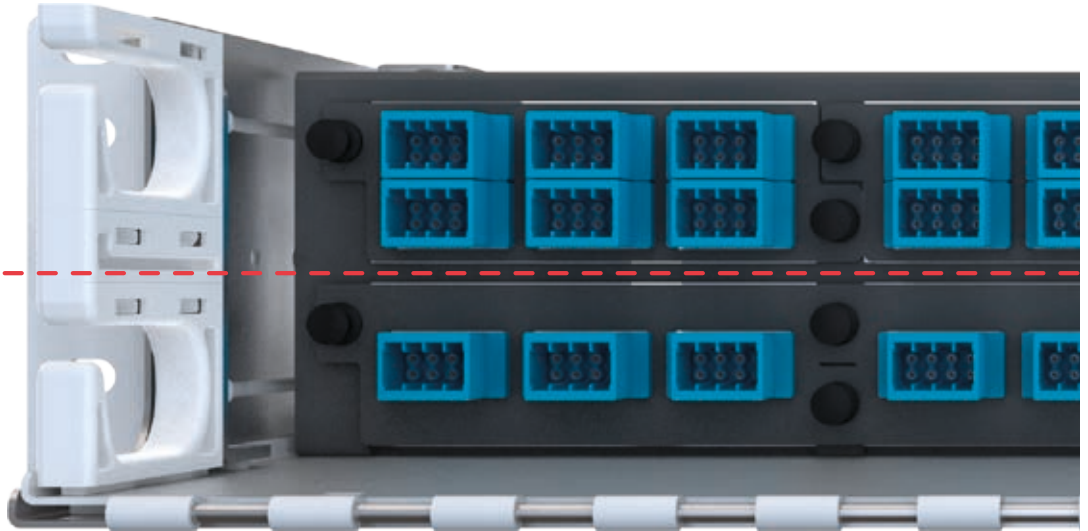
Current Cassette Based Architecture	acclAIM Based Architecture
<p>4x12F MTP/MPO Connectors (48F)</p> <p>Transition/breakout from high density MTP connectors to individual fiber connectors (commonly required to connect electronics)</p> <p>12x Duplex LC Connectors (24F)</p>	<p>6x Infinium acclAIM Octal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



# INFINIUM acclA/M DENSITY

**UHD+**  
Ultra-High Density Plus  
192 Fibers/RU

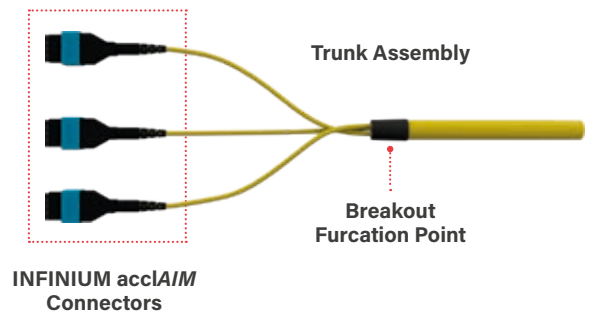
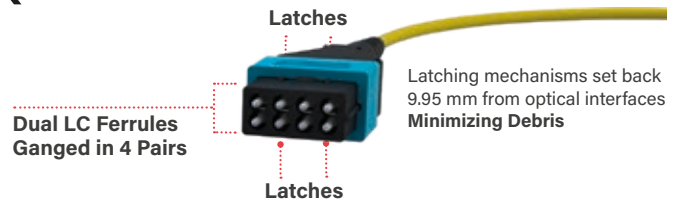
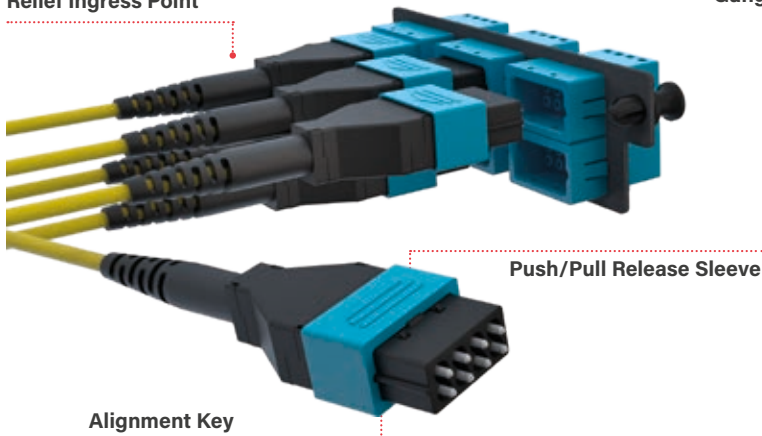
**HD**  
High Density  
96 Fibers/RU



acclA/M Adapters Shown in INFC02U-M4-E Enclosure

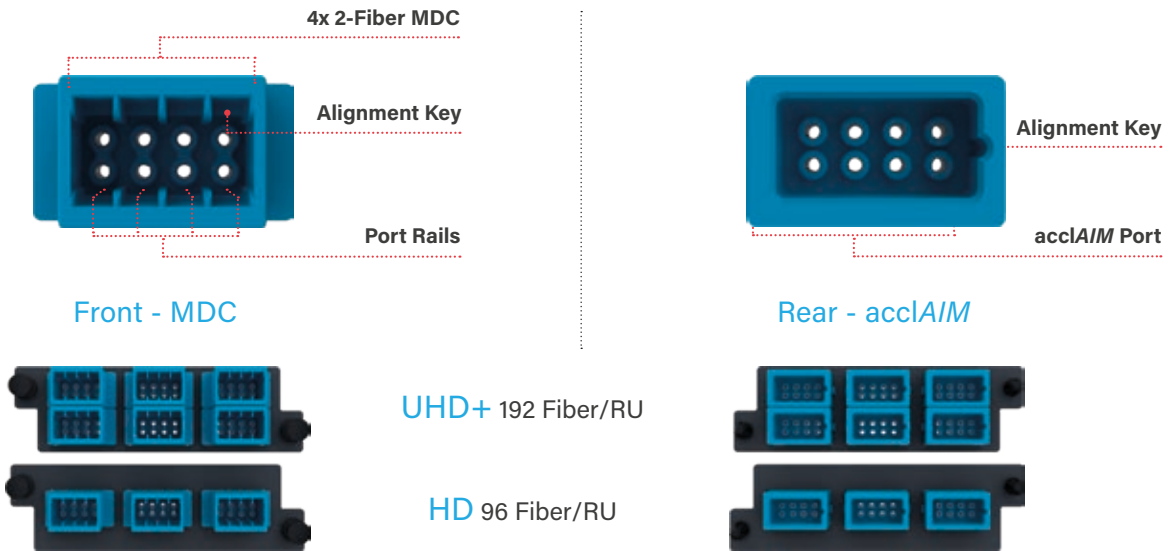
# INFINIUM acclA/M CONNECTOR & TRUNK

Trunk & Strain  
Relief Ingress Point

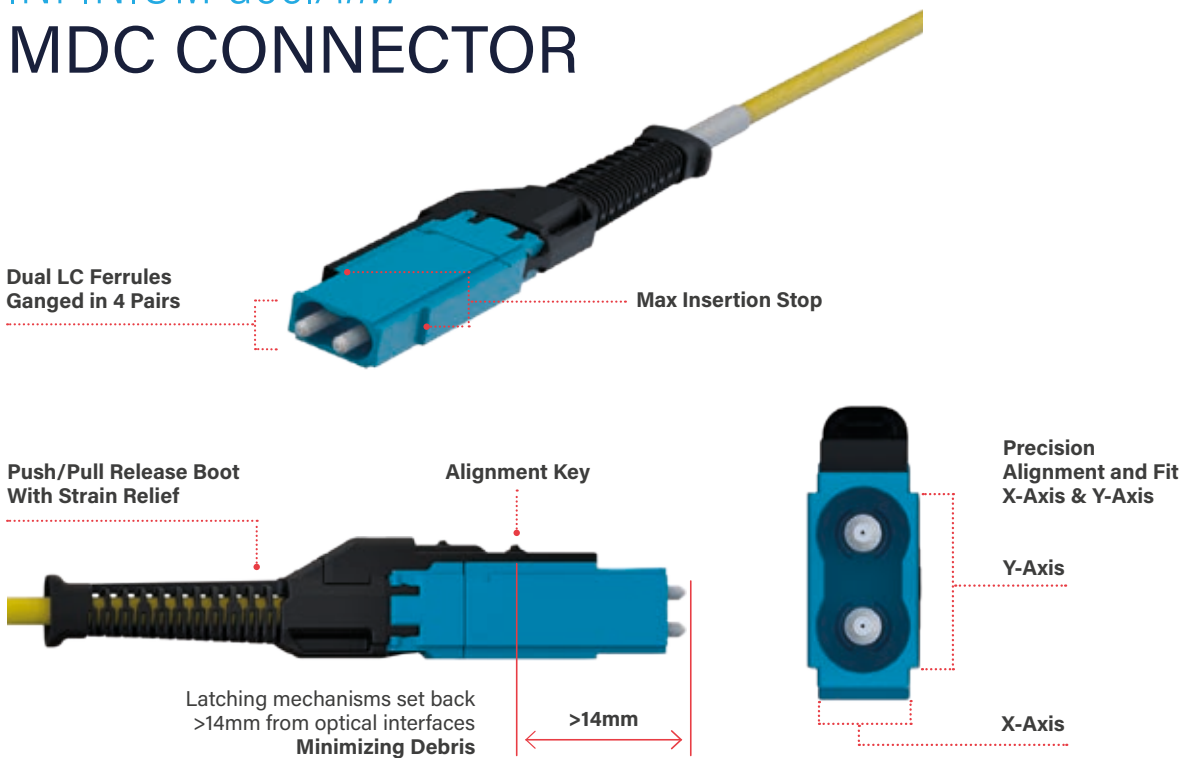




# INFINIUM acclA/M CONVERSION ADAPTER PANEL - HDFP



# INFINIUM acclA/M MDC CONNECTOR



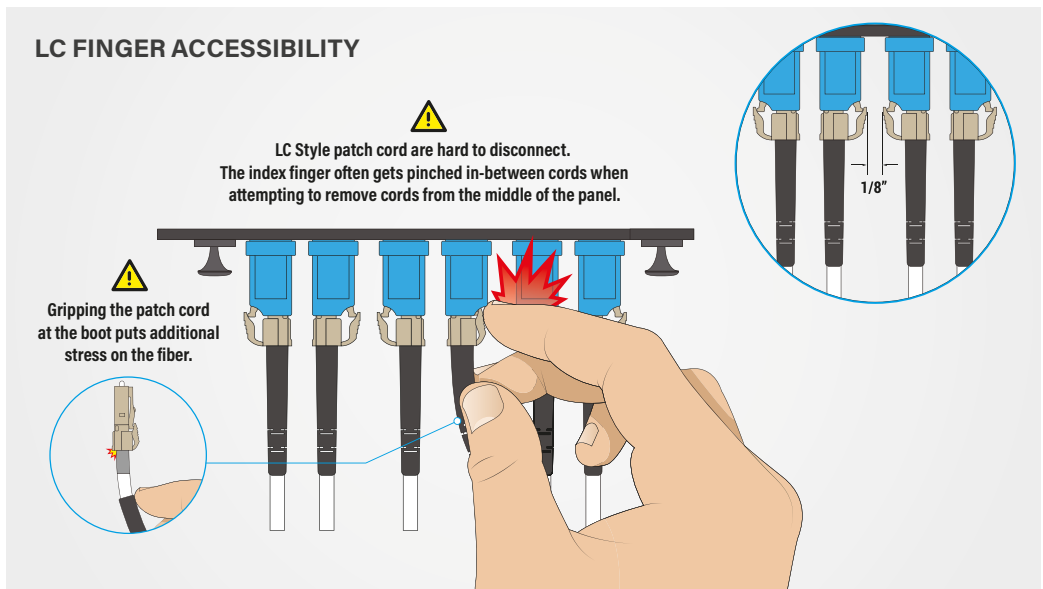
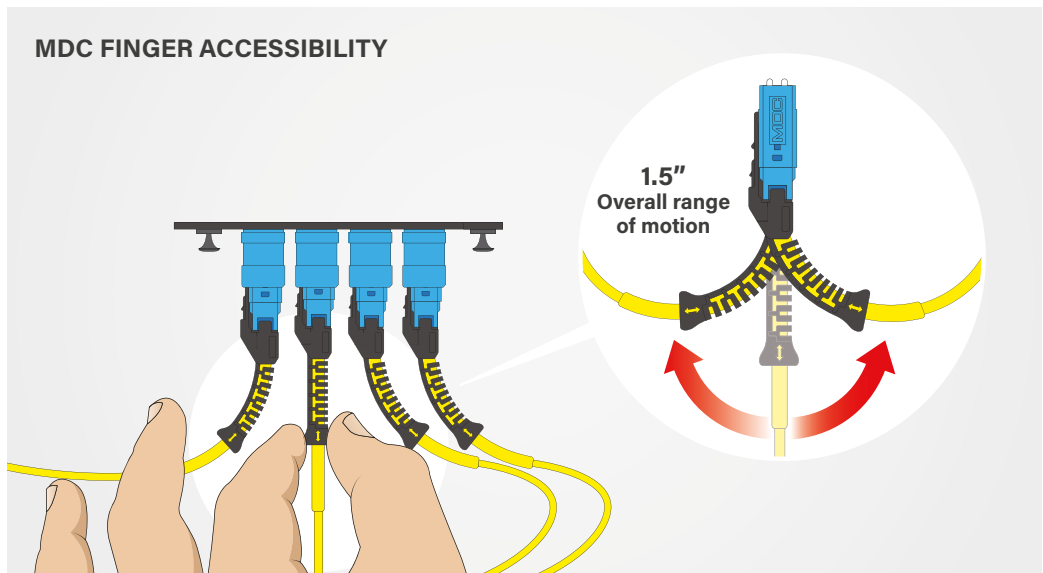
# INFINIUM acclAIM

## 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

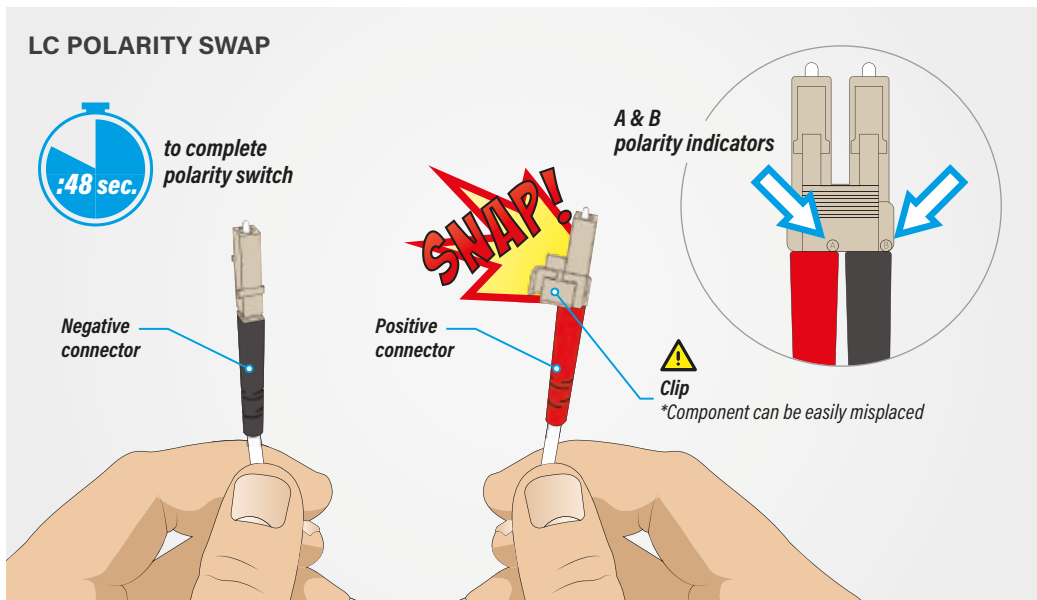
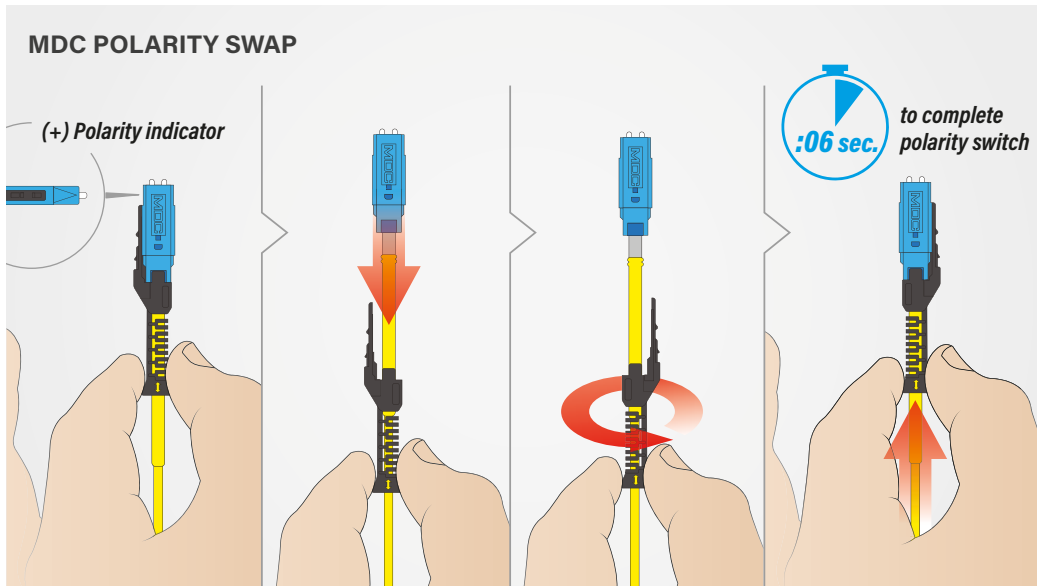
**>60%**  
Faster Patch  
Cable Removal



# INFINIUM acclA/M

## INSTALL, MAINTENANCE & TESTING ADVANTAGE

- Faster cable installs and removal.
- acclA/M 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 acclA/M takes 6 seconds vs. LC Duplex which takes 48 with the potential of lost components - acclA/M 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.

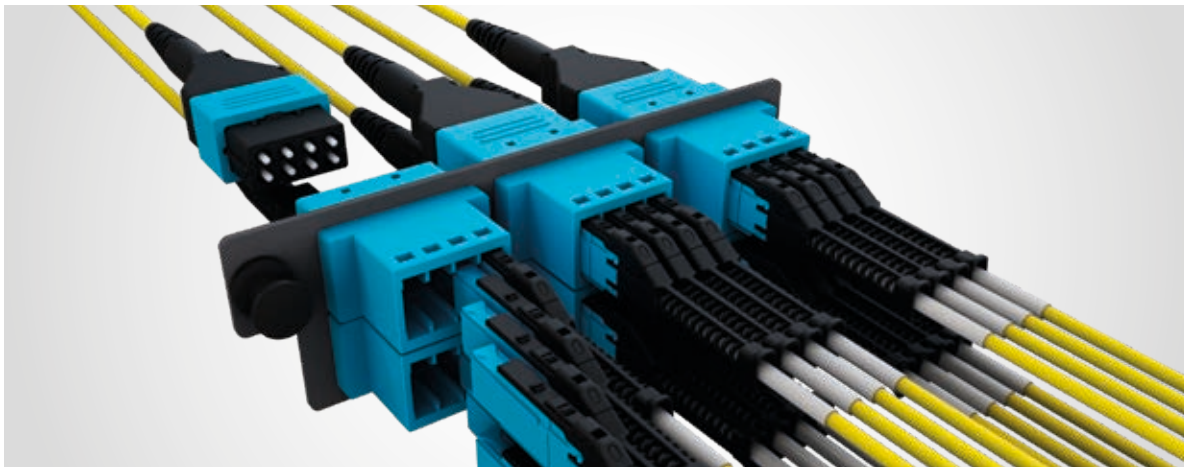


# INFINIUM acclAIM PERFORMANCE ADVANTAGE

## Core level performance - maximizing optical headroom

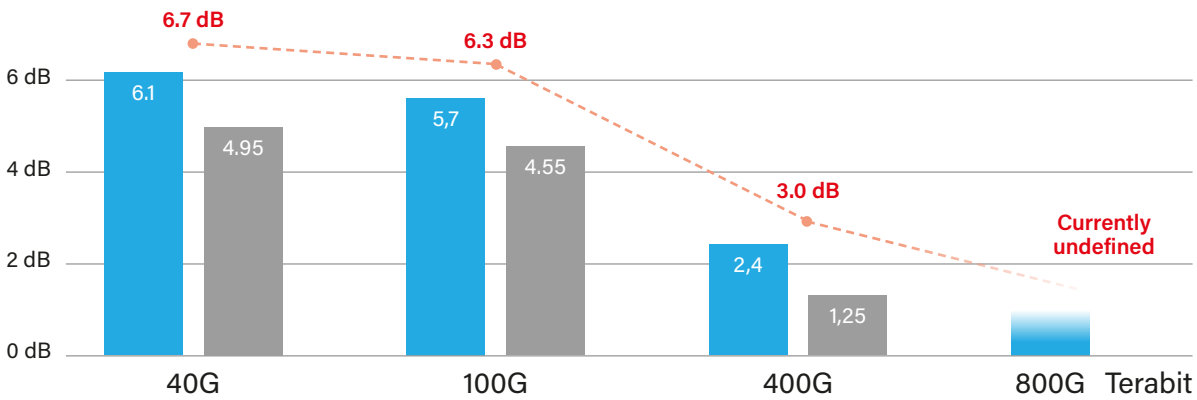
There is an inevitable correlation between maximizing optical performance margins (optical headroom) and optimizing overall costs from both an operational and procurement perspective\*. Infinium acclAIM delivers dramatically more optical headroom than any other pre-terminated solution!

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



## Performance advantage

Maximum allowable application attenuation



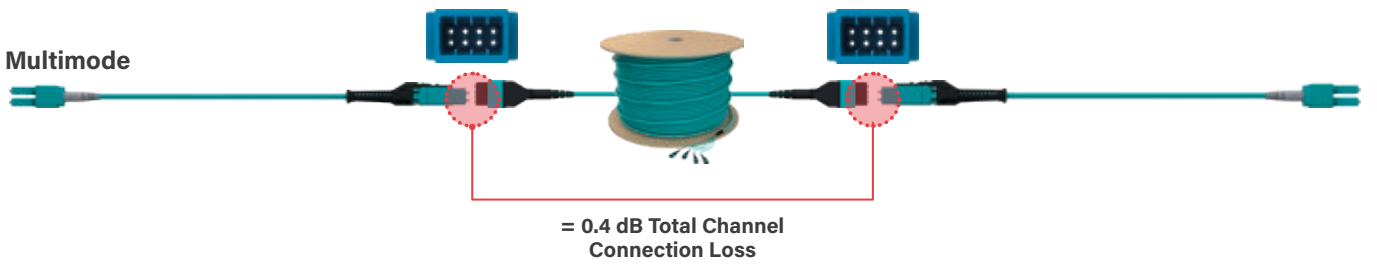
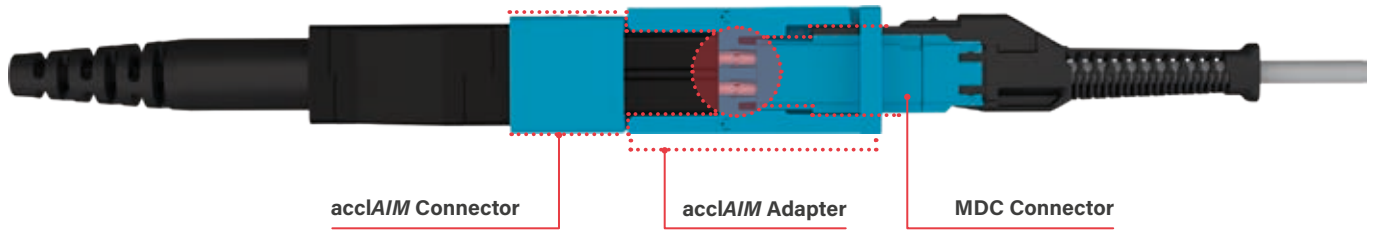
- Infinium acclAIM available optical headroom
- Cassette and MPO ultra-low loss solution available optical headroom
- - - Maximum allowable application attenuation

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

	Industry standard pre-terminated solution	Infinium 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



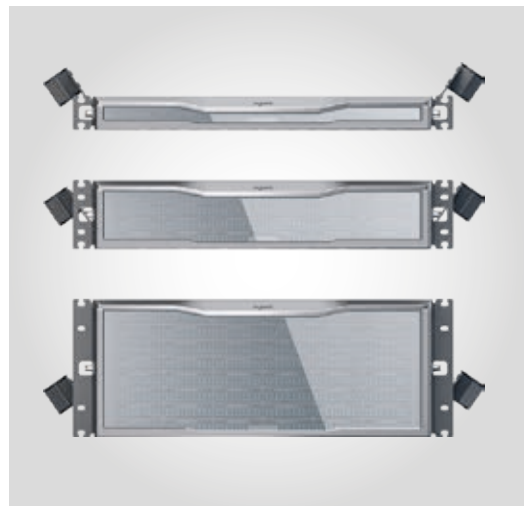
## INFINIUM acclA/M EASE OF INSTALLATION

A single screwdriver is the only tool required for installing the enclosure in a rack. The mounting brackets with pin locks allow the enclosure to slide conveniently between 4 horizontal mounting positions. The open-ended design of the mounting brackets allows the enclosure to be installed by one person. Simply pre-mount the rack screws at the proper location on the rack, place the enclosure's mounting brackets on the pre-mounted screws to hold it in place, then tighten the screws.



## INFINIUM acclA/M BEAUTIFUL AESTHETICS

This enclosure features sleek styling that matches the design of Legrand racks, cabinets and other data center products and solutions, and a magnesium color scheme that fits all data center environments.

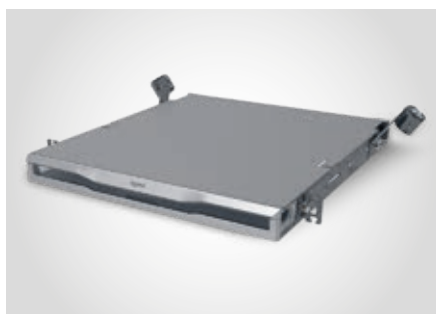


# DESIGNED TO GROW WITH THE NETWORK

## ■ INFINIUM™ Enhanced Fiber Enclosure

The Infinium Enhanced Fiber Enclosure is an ideal solution for fiber networks in data centers and building networks. The high-density footprint accommodates from 96 LC to 192 MDC fibers in 1U of rack space. This enclosure has many innovative features designed with the installer, contractor, and network professional in mind, providing a simplified process when installing or working within the enclosure.

- High Density, from 96 LC to 192 MDC connectors in 1U of rack space.
- Available in 1U, 2U, and 4U.
- Accommodates 4 mounting depth positions.
- Magnetic door latch.
- Versatile label card mounting locations (Door or Tray).
- Forward-sliding label card.
- 60/40 split toolless top cover.
- Toolless cable attachment arms.
- Pivot arms for fiber slack management.
- Magnesium color scheme.



**1U Enclosure**



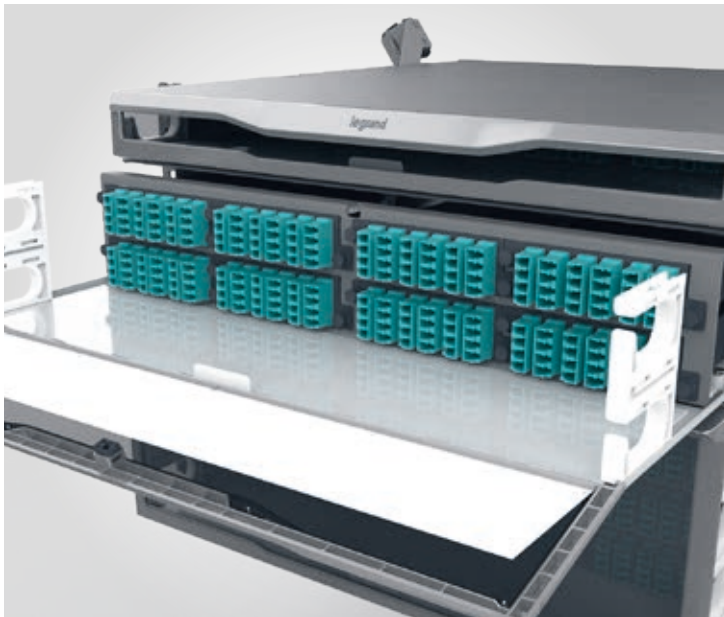
**2U Enclosure**



**4U Enclosure**

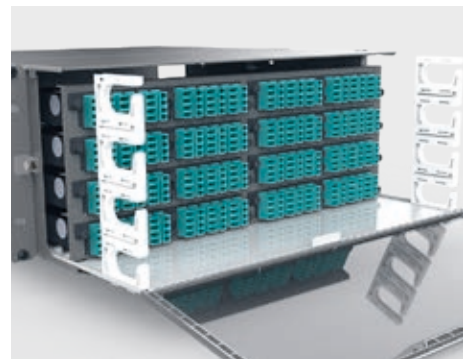
## INFINIUM acclA/M BETTER ACCESSIBILITY

The magnetic latching mechanism of the enclosure door enables a simple one-handed pull to open, and push to close access. The enclosure door is attached to the sliding drawer face and tray, allowing easy clearance from equipment or other enclosures mounted below. A tray lock mechanism ensures that the tray stays in place when patching or dressing the fiber. The 60/40 split-top cover allows access from above and features toolless removal.



## INFINIUM acclA/M INCREASED VISIBILITY

A white tray in the front and integrated LED lighting in the rear, along with the split-top cover, provide maximum visibility when working within the enclosure.





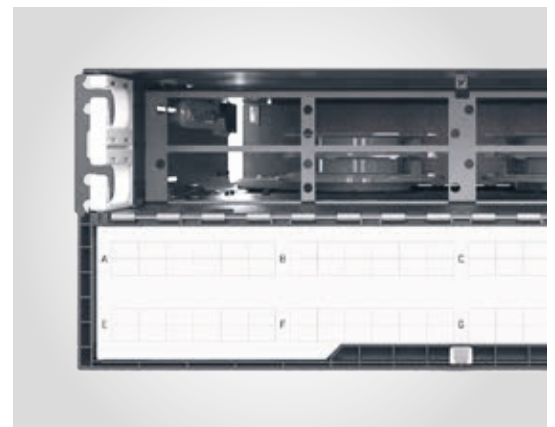
## INFINIUM acclA/M INTUITIVE CABLE MANAGEMENT

The unique pivot arms provide an innovative way to manage fiber slack storage. Each arm rotates out towards the rear of the enclosure and hosts a pivot disk that may be used with slack storage spools, fan-out kits, or attachment points for securing the Legrand HiLOC harness. The Cable Attachment brackets feature toolless adjustments for location based on which direction the cable is routed - either side of the enclosure, top or bottom. Simply make the adjustment for cable routing, load the grommet around the cable(s) and close the attachment cover.



## INFINIUM acclA/M EASIER LABELING

The label card is incorporated into the front door, positioning the labels directly below the ports for simple labeling and easy port identification. Templates created for both Brother and Dymo printers are available for download.



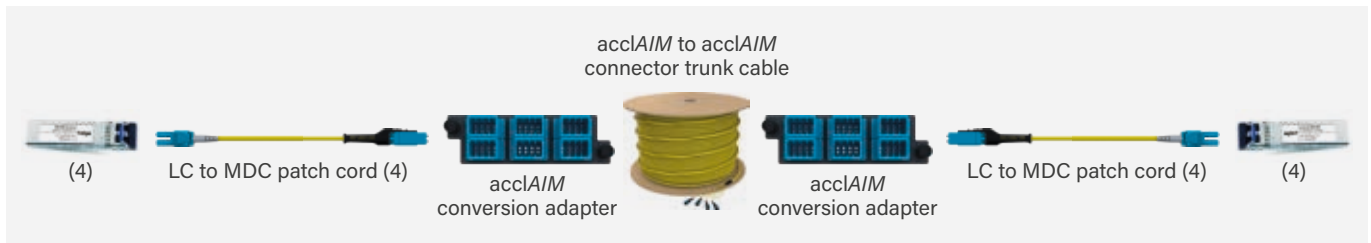
# INFINIUM acclAIM

## REIMAGINING FIBER CABLING

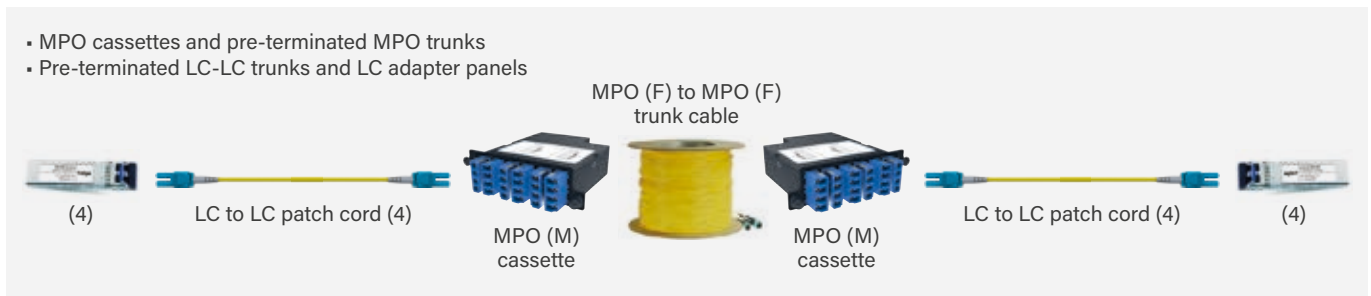
Cassette-based forms of cable management within mission-critical spaces all pose varying challenges around polarity, optical loss, rapid deployment, and costs. Without a compelling alternative solution, these issues have often been viewed as an accepted frustration. Here is where the Legrand team swans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

Legrand’s Infinium 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, Infinium 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 Infinium 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 Infinium acclAIM.

### ■ STANDARD LINK CONFIGURATION (8F)



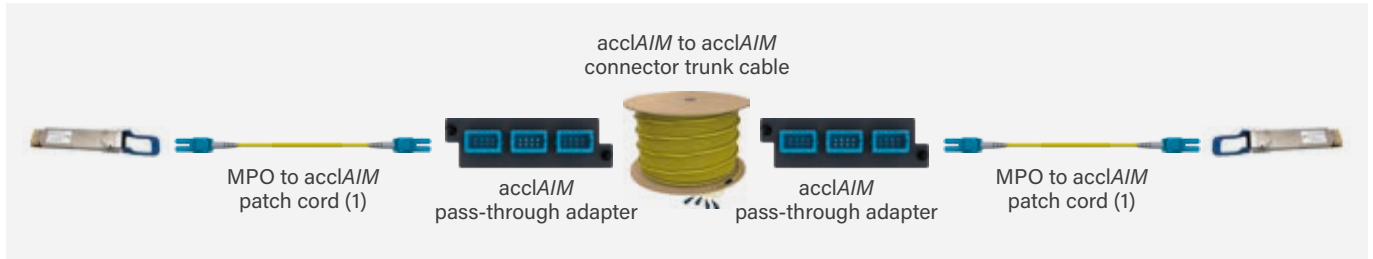
### REPLACES



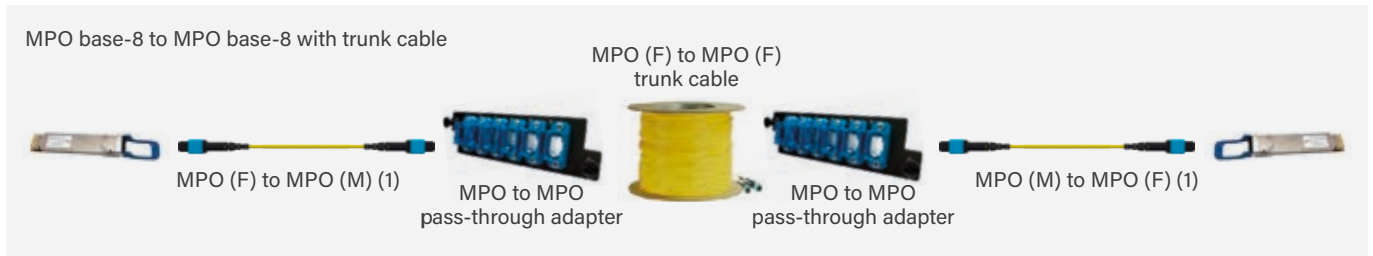
### INFINIUM acclAIM advantages

- ▶ 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**



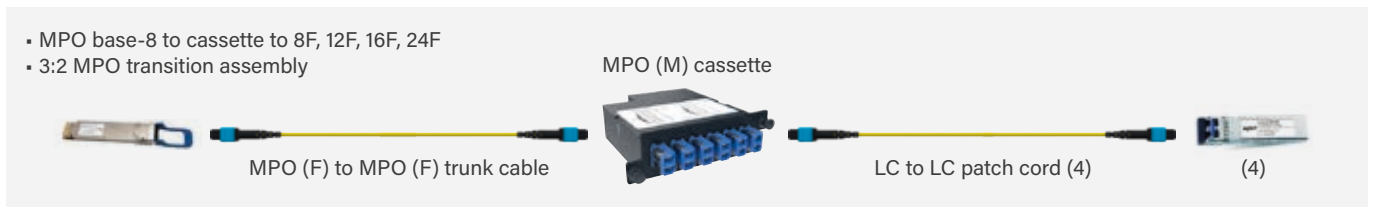
**INFINIUM acclAIM advantages**

- ▶ Better performance
- ▶ Simpler polarity

**■ 8F DISTRIBUTION LINK CONFIGURATION**



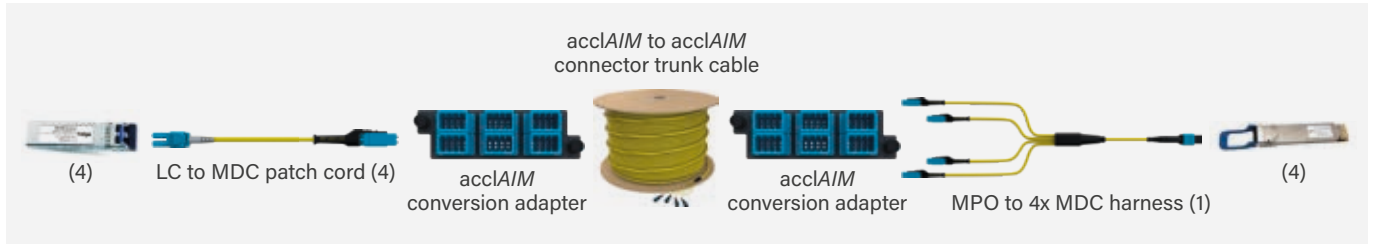
**REPLACES**



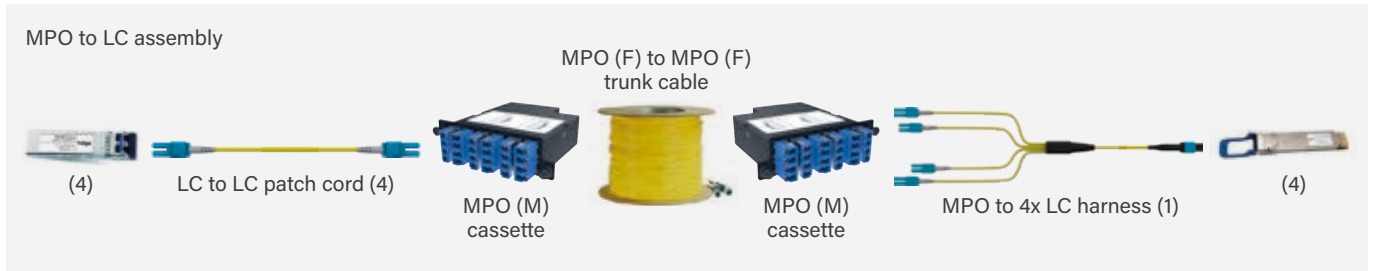
**INFINIUM acclAIM advantages**

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

**CONVERGENT LINK CONFIGURATION (8F)**



**REPLACES**



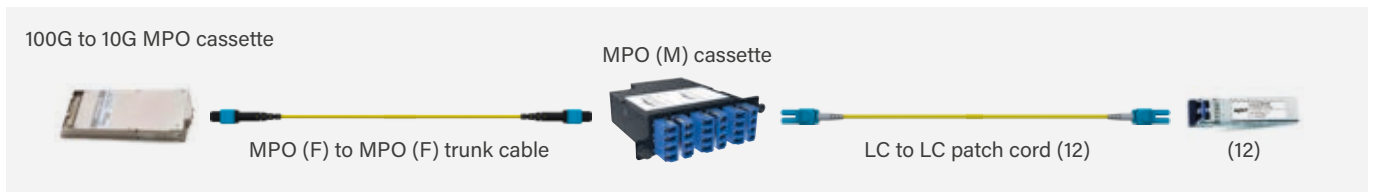
**INFINIUM acclAIM advantages**

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

**24F DISTRIBUTION LINK CONFIGURATION**



**REPLACES**



**INFINIUM acclAIM advantages**

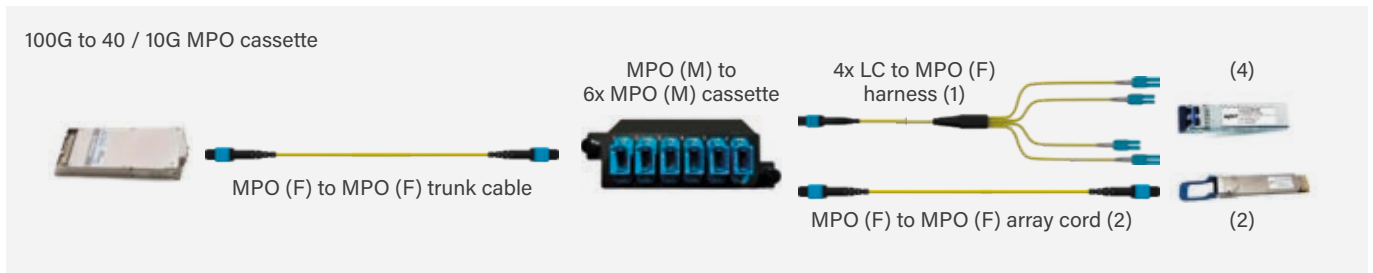
- ▶ No cassette
- ▶ Better performance
- ▶ Higher patch field density
- ▶ Simpler polarity (no gender pins)



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



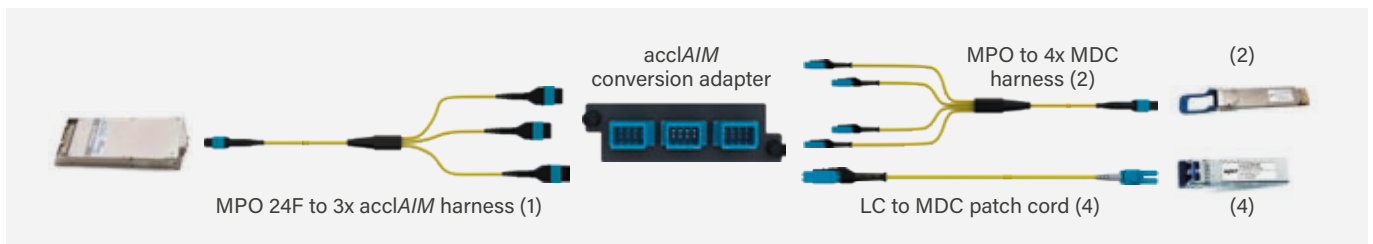
**REPLACES**



**INFINIUM acclAIM advantages**

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

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



**REPLACES**



**INFINIUM acclAIM advantages**

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

## HD Infinium™ enhanced fiber enclosures

## Infinium™ acclA/M

### trunk cable assembly



INFC01U-M4-E



Example of trunk cable assembly

Pack	Cat.Nos	HD enhanced enclosures
		High density, up to 96 LC connectors in 1U of rack space Integrated LED lighting and white tray Forward-sliding label card 60/40 split toolless top cover Toolless cable attachment arms Pivot arms for fiber slack management Magnesium color scheme
		<b>With M4 (Base 12) drawer face</b>
1	INFC01U-M4-E	1 U
1	INFC02U-M4-E	2 U
1	INFC04U-M4-E	4 U

Pack	Cat.Nos	Infinium™ Core
		Polarity: C Jacket type: Plenum Unit of measure: Meters / Feet
		<b>OM5</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>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.

# Infinium™ acclAIM

## fiber conversion adapter panels



HDFP-AME48AC

Pack	Cat.Nos	HDFP adapter panels
1	HDFP-AME24QC	<b>QC</b> Lime 3 LC for 24 fibers OM5
1	HDFP-AME48QC	6 LC for 48 fibers OM5
1	HDFP-AME24LC	<b>LC</b> Aqua 3 LC for 24 fibers OM4
1	HDFP-AME48LC	6 LC for 48 fibers OM4
1	HDFP-AME24AC	<b>AC</b> Blue 3 LC for 24 fibers OS2
1	HDFP-AME48AC	6 LC for 48 fibers OS2

# Infinium™ acclAIM

## technical characteristics

### Trunk cable assembly

	Single-mode	Multimode
<b>General specifications</b>		
Cable assembly type	Infinium acclAIM trunk	Infinium acclAIM trunk
Fiber category	9 μm Single-Mode (OS2)	50 μm Multimode (OM4/OM5)
Fiber category	United States	United States
<b>Connector design (connector -A, connector -B)</b>		
Connector type	Infinium acclAIM	Infinium acclAIM
Connector color	Blue	Aqua (OM4) / Lime - coming soon (OM5)
Ferrule material	Ceramic	Ceramic
Boot color	Black	Black
<b>Performance specifications - per connector (connector -A, connector -B)</b>		
Insertion loss max.	0.30dB	0.50 dB
Return loss min.	55 dB	26 dB
<b>Cable design</b>		
Jacket color	Yellow	Aqua (OM4) / Lime - coming soon (OM5)
Polarity	C	C
<b>Fiber Specifications</b>		
Wavelengths	1310/1550/1625 nm	850/1300 nm

### Fiber conversion adapter panels

#### General information

<b>Color</b>	OM4 (MM) Aqua, OM5 (MM) Lime, OS2 (SM) Blue
<b>Country of Origin</b>	Mexico
<b>Type</b>	50 μm Multimode (OM4 or OM5) / 9 μm Single-Mode (OS2)

#### Dimensions

<b>Width</b>	3.45 in / 87.63 mm
<b>Height</b>	1.14 in / 28.96 mm
<b>Depth</b>	1.02 in / 25.9 mm

#### Technical information

<b>Adapter Front / Rear</b>	MDC (4) per conversion adapter / acclAIM (1) per conversion adapter
<b>Compatibility</b>	Infinium HD-E Enclosure and RFPHD Panels - (4) Conversion Adapter Panels per RU
<b>Density</b>	Conversion Adapters per Panel (3) High Density (HD), (6) Ultra-High Density Plus (UHD+)
<b>Fiber Count</b>	48F (6 acclAIM UHD+), 24F (3 acclAIM)

# 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-fibre 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.



> FIND ALL OUR SOLUTIONS FOR  
STRUCTURED CABLING IN THE CATALOGUE



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**legrand**

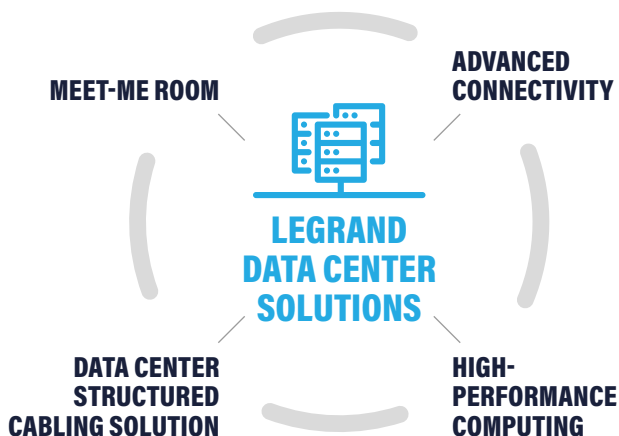


## DIFFERENT SOLUTIONS FOR DIFFERENT CABLING AREAS

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.


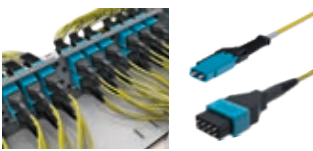


## WE HAVE SOLUTIONS FOR EVERY AREA AND WE ARE HAPPY TO SUPPORT YOU

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>	✓	✓		✓	✓
	<b>HIGH-PERFORMANCE COMPUTING</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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