CABLExpress®

A DIVISION OF CXTEC

DATA CENTER GUIDE

RESPECT® LAYER ONE

The CABLExpress Experience

CABLExpress, a division of CXtec, manufactures high-performance cabling, data center infrastructure products, and structured cabling solutions. We help you implement a cabling infrastructure that provides the quality and performance to make all your technology investments worthwhile.

CABLExpress began more than 40 years ago working to solve problems for mainframes in the data center. Our cabling expertise is guided by our experience with enterprise accounts, schools, financial institutions, retail, and medical facilities.

We understand that hardware investments need to be optimized to meet the business goals of your company. We want to become your true partner, providing insight for the future, knowledge of current best practices, and personal assistance in data center design in every interaction you have with us.
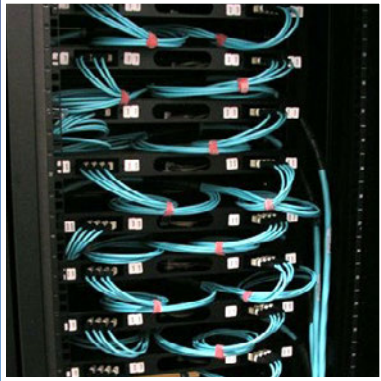
The award-winning CABLExpress Multi-Path™ System handles multiple cabling light path solutions resulting in little disruption or added cost. Our Skinny-Trunk® Solution is a high-density, fiber optic product line that helps you maximize business value and prepare for future generations of upgrades.

We serve on the Telecommunications Industry Association (TIA) Telecommunications Cabling Systems Engineering Committee (TR-42), which develops and maintains standards for optical fiber, balanced twisted-pair copper and other telecommunications and data cabling systems and components.

We bring an in-depth understanding of current data center standards, such as the ANSI/TIA-568.3-E, Optical Fiber Cabling and Components Standard, ANSI/TIA-942-C, BICSI 002 and others.

Protect your critical assets with the highest-quality product, best service, optimum performance, and industry-leading innovation you can only get from CABLExpress.

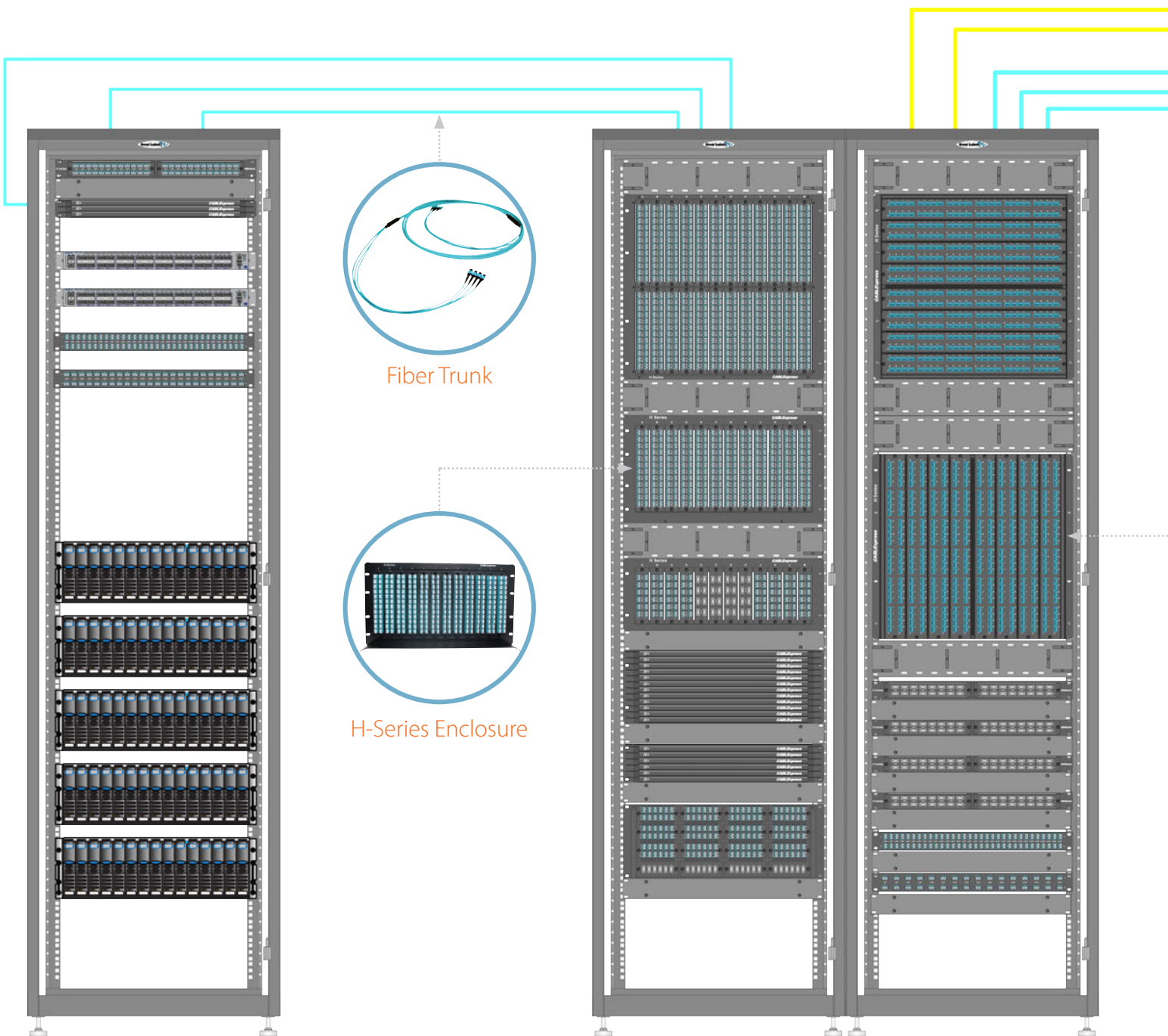# High-performance cabling, data center infrastructure products, and structured cabling solutions
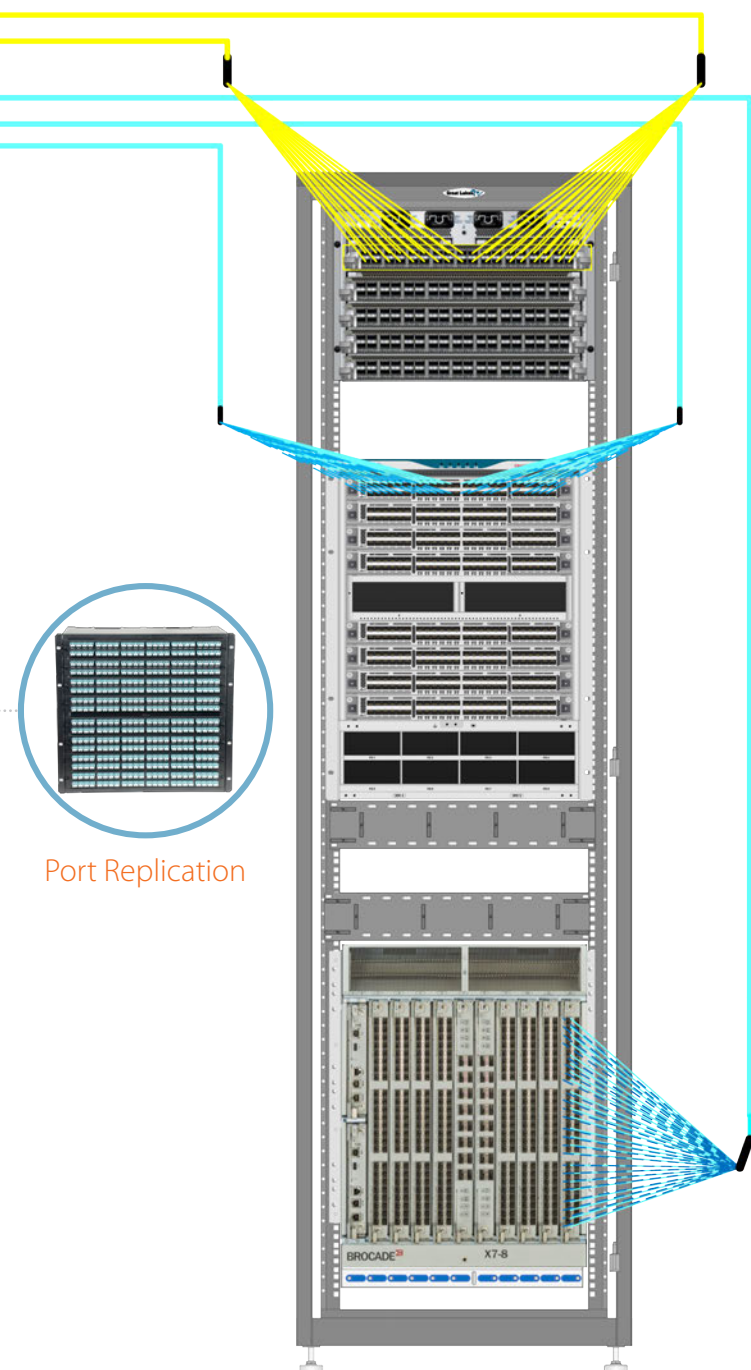
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Skinny-Trunk® Solution

Designed with performance and manageability in all aspects of its product set, the Skinny-Trunk® Solution is the best way to ensure your equipment will achieve optimum performance.

Fiber Trunk

H-Series Enclosure

RESPECT LAYER ONE ®

Port Replication

Multi-Path™ System

Increasing data speeds have created challenges for data center managers designing fiber cabling topologies, such as polarity (light path). This dilemma led us to design a new way to deliver a simple, effective system that handles multiple paths with very little disruption or added cost.

The CABLExpress Multi-Path™ system simplifies the cabling migration process and reduces the need for multiple transition components. The CABLExpress Multi-Path™ system is also the ANSI/TIA-568.3-E new "universal" polarity method, U1.

Learn more at: www.cablexpress.com/multipath

Performance

Designed to meet and exceed your loss budgets and have high repeatability, so your cables work the first and the 500th time you plug in.

Manageability/Scalability

High-density yet easy to work with, featuring organized cable management and modular designs for easy swap outs.

Flexibility

Overall cabling can decrease by 70%.

Time Savings

Plug-and-play technology.

- **Ensures your equipment will achieve optimum performance**

- **Allows for flexibility and scalability with all your growth needs**

- **Save on space, labor and cooling**

Port Replication

Port replication is a patching system that mirrors (duplicates) the active electronics in a passive environment.

This reduces cable management issues, decreases opportunities for patch errors and reduces wear and tear on the active ports.

H-Series enclosures are designed specifically to replicate high-density director class switches.

This allows full replication in a Main Distribution Area (MDA) as recommended in the TIA-942 Data Center Standard. 48- and 32-port modules are also available to offer full replication for any density.

10U

12U

Brocade X7-8

1U
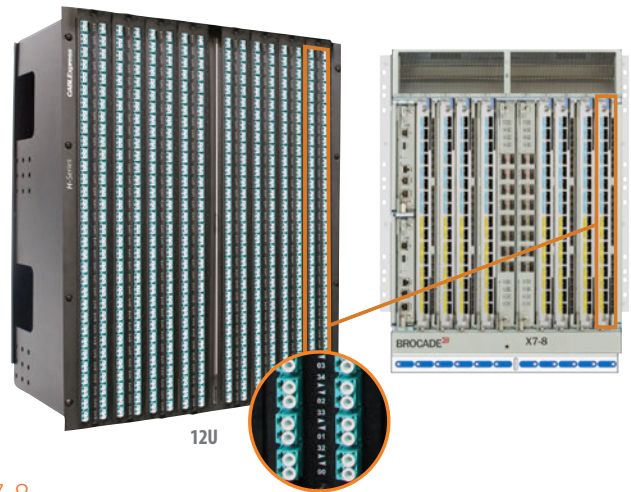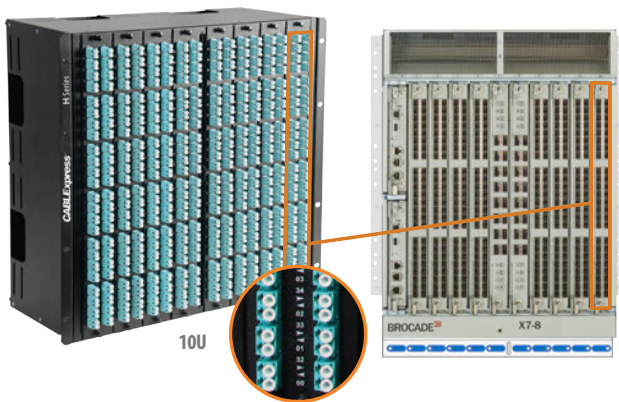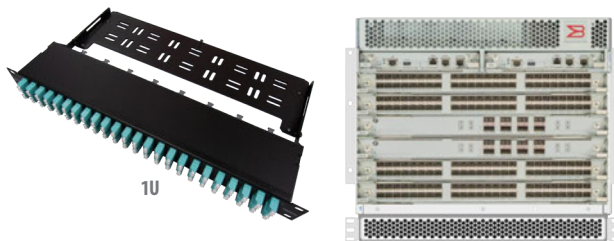
Brocade X7-4 with
FC64-48 port Line Cards

1U
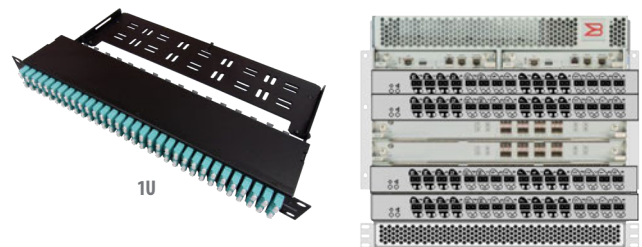
Brocade X7-4 with
FC32-64 port QSFP Line Cards

H-Series 10U and 12U enclosures have modules designed specifically to replicate 32-, 48- and 64-port director class switches. Available in vertical and horizontal orientations. We can match your switch port numbering exactly.

Easy Access (EA) Series Patch Panels

Developed to eliminate unnecessary obstructions and allow data center managers to easily access patch cabling in the front and rear of the patch panels.

The EA Series allows you to easily access patch cabling in the front and the rear of the patch panel. There is no top, or sides, to get in your way when accessing the fiber ports. This makes installation and any moves, adds, and changes much easier in congested racks or cabinets.

- **Port Density** – Up to 48 duplex LCs or 32 MPO ports per RMU

- **Scalable** – Faceplate options of (4) 12-port duplex LC modules per rack unit, or (2) 24-port duplex LC modules per rack unit

- **Space Savings** – The complete system takes up 1U of space with a depth of 11"

- **Modular Cable Management** – Ability to add front cable manager as needed

- **Low-Loss Components** – Ensure your cabling solution will meet current, and future optical loss budgets

- **Labeling Card** – Viewable and removable when you open the front door

- **Rear Cable Manager** – Multiple tie-down slot positions make cable routing and cable management easy to accomplish

1U 4-Slot RSD Series
Easy Access with rear manager

1U 2-Slot H-Series
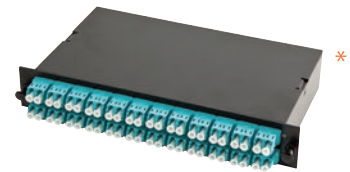Easy Access with rear manager

Optional front cable manager
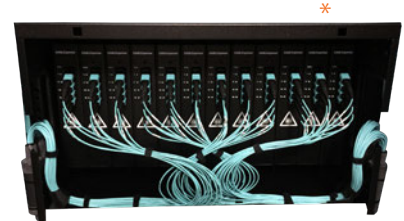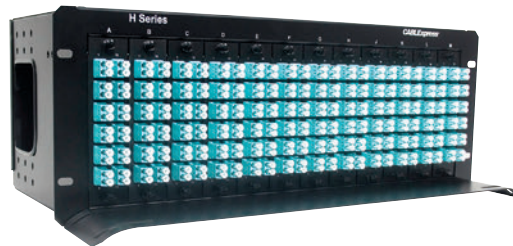
H-Series Enclosures

Our H-Series fiber enclosure solutions are available in both vertical (4U, 6U, 10U, 12U) and horizontal (1U, 10U) mounting configurations, allowing users to choose port orientation to mirror high-density switches.

END-0F-ROW/EDGE SWITCH REPLICATION

1U with up to
48 duplex LC ports

*

4U with up to
144 duplex LC ports

*

6U with up to
288 duplex LC ports

*
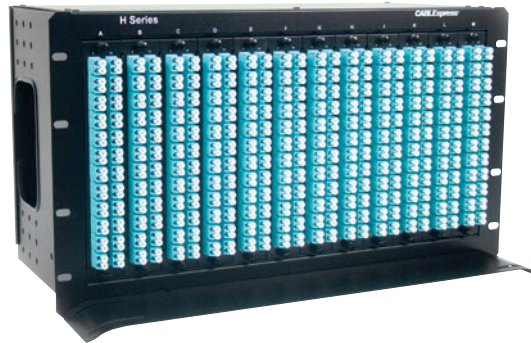
16-port options available
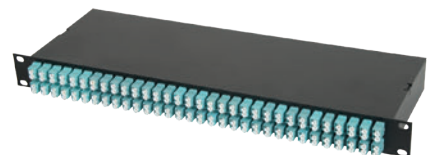
1U with up to 32 duplex LC ports   1U with up to 48 duplex LC ports   1U with up to 64 duplex LC ports

1U Rack Mount Modules

Our 1U rack mount modules allow you to deliver port replication on a smaller scale, such as replicating a 4U chassis.

This allows you to maximize your rack space usage and still receive the myriad of benefits that port replication provides!

*Full density shown. Also available half-density LC or with MTP® feed-through adapter panels.

RESPECT® LAYER ONE
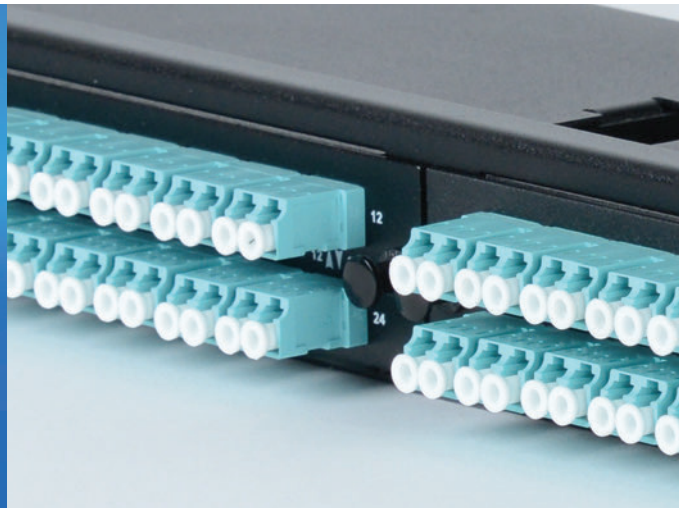
ENTERPRISE/CORE SWITCH REPLICATION

10U 8-slot with up to 384 duplex LC ports

Vertical

Horizontal

48-Port   64-Port
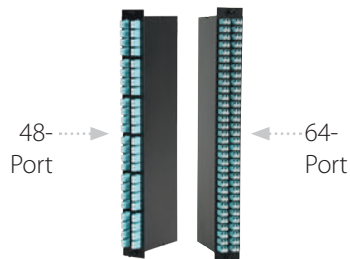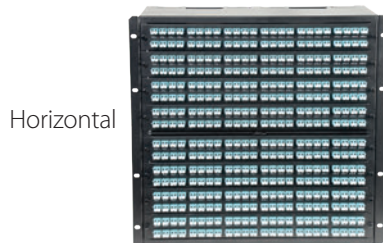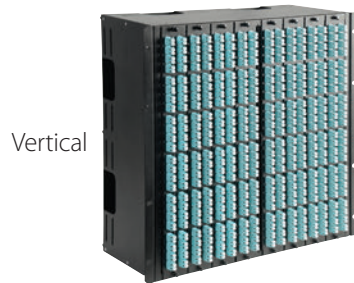
10U 24-slot with up to 576 duplex LC ports

Vertical

Horizontal

*
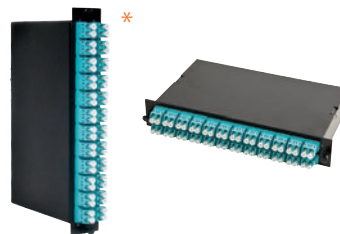
12U with up to 512 duplex LC ports

ENCLOSURE	NUMBER OF SLOTS	MAX LC DUPLEX PORT COUNT	ORIENTATION
1U	2	48	Horizontal
4U	12	144	Vertical
6U	12	288	Vertical
10U 8-slot	8	512	Both
10U 24-slot	24	576	Both
12U	8	512	Vertical

H+ Enclosures

CABLExpress® H+ enclosures provide maximum scalability, allowing you to customize your layer one cabling infrastructure to your unique business needs.

Each sliding tray houses four modules, and each module contains six LC duplex ports. H+ enclosures provide optimal usability and manageability to allow for a seamless transition as you continue to migrate to higher speeds.

Featuring the highest port density for fiber optic cabling currently offered in the marketplace, H+ enclosures accommodate up to 288 duplex LC ports in a 4U, 144 in a 2U, and 72 in a 1U configuration.

Their unique design allows easy access to all ports and comes with integrated cable management features for a clean installation, while their front door provides protection for your cabling.
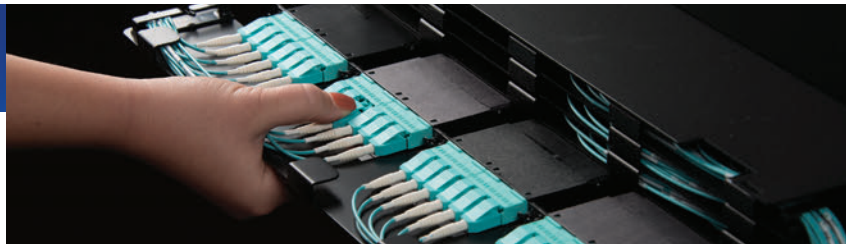
Each tray houses four modules - each module contains six LC duplex ports

For best cable management results, we highly recommend using the H+ enclosure with CABLExpress® Skinny-Trunk® 2mm round fiber jumpers

Available in 1U, 2U and 4U

ENCLOSURE	MAX LC DUPLEX PORT COUNT
1U	72
2U	144
4U	288

Harnesses

Our Skinny-Trunk® harnesses solve the problem of cable management in high-density fiber switches. Their revolutionary design eliminates cabling bulk, and staggers to fit your switch ports perfectly.

- Can reduce bulk by more than 60%

- Pre-engineered and customizable staggering provides neat and clean installation into your switches for optimum cable management

- Round fiber cordage on LC legs allows for maximum routing flexibility

- Far exceed industry dB loss performance standards

- Come in 6-to-1 and 4-to-1plug-in factors from MTP® to LC, which save valuable install time

Harness furcation
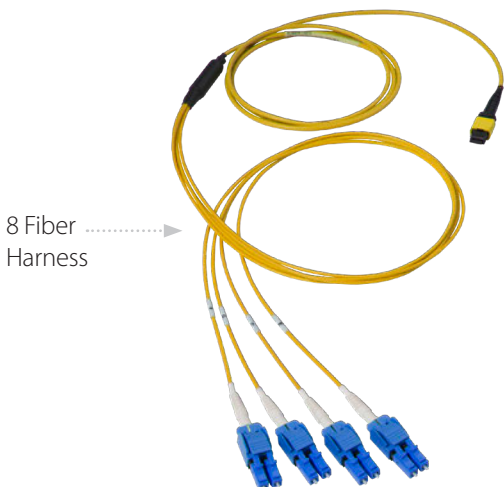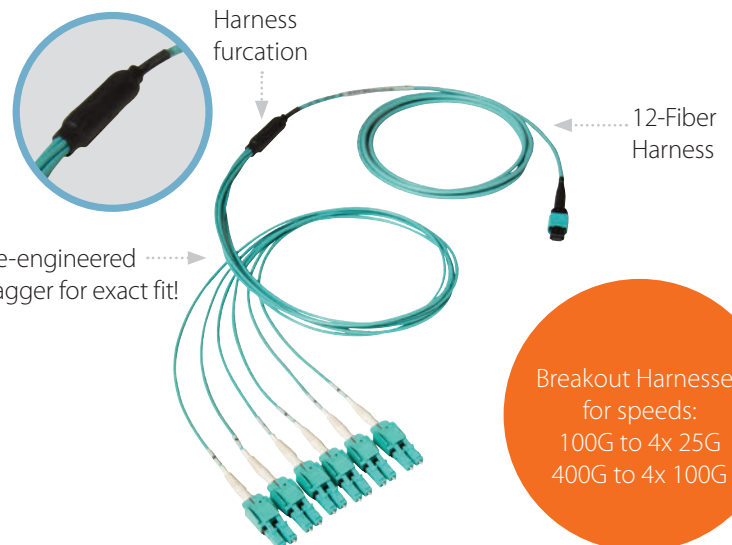
12-Fiber Harness

Pre-engineered stagger for exact fit!

8 Fiber Harness

Breakout Harnesses for speeds:
100G to 4x 25G
400G to 4x 100G

Ladder Rack Enclosures

The Skinny-Trunk® ladder rack enclosure is the first copper and fiber enclosure specifically designed to mount directly to overhead conveyance.

- Stay in compliance with TIA-942 standards

- Easy, one person mounting saves time and money on install

- Accepts 16 modules or feed-through adapter panels

Can hold up to 192 LC duplex ports or 96 copper ports (or a combination of the two)

Available in multiple sizes

Z-Mount® Brackets

When you just don't have rack space, the Z-Mount® bracket and the ladder rack enclosure are the solution. The Z-Mount® bracket fits all racks and cabinets, regardless of manufacturer, with industry-standard spacing.

- The unique design allows you to mount to the outside of the rack, using no horizontal rack space and ensuring the maximum use of your conditioned space.

- Available in 4-, 8-, and 12-port MTP® (left and right) so you can distribute up to 144 fibers from just one Z-Mount. Also available in LC and RJ45 for server rack applications.

- Fits all racks and cabinets with industry-standard EIA 510D spacing.
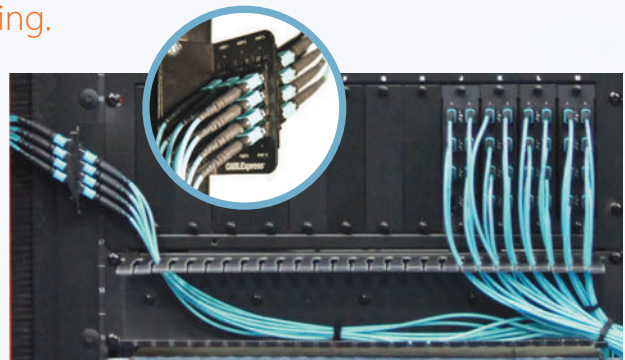
Also available with LC and copper ports

RSD Series Enclosures

Our RSD Series 1U, 2U and 4U fiber enclosures provide high-density, low dB loss connections. They're ideal for structured cabling environments, open racks in telecom closets or any areas where the front protection might be needed.

They support up to 96 fibers in 1U and 384 fibers in 4U, saving valuable space. Their modular design allows for multiple connector types within each enclosure, and their LC and SC couplers utilize state-of-the-art spring stabilizing for minimal coupler movement. Their slide out, tilt-down drawer provides easy access to modules. Plus, they come standard with a lifetime warranty.

RSD Series Modules

Check out these standard features:

- Low loss components allow flexibility in fiber network design

- 13-inch depth frees up room in rack

- Light weight allows for easier mounting

- Label card enables easy port identification

- Internal cable managers maintain proper bend radius

- Rugged design helps fiber to remain secure

- Designed to accept 4, 8 or 16 adapter panels and/or modules

10-Gig
Aqua
12-port LC

Single-mode
12-port LC

8-port options available

Available in half-density options

SHOWN WITH ADAPTER PANELS

Enclosures also accept modules

1U with up to 48
duplex LC ports

2U with up to 96
duplex LC ports

4U with up to 192
duplex LC ports

Adapter Panels

10-Gig Aqua 12-port LC

Multi-mode 6-port SC

Multi-mode 6-port ST

6-port RJ45

12-port MT-RJ

6-port MTP®

Angled Patch Panels

CABLExpress® angled patch panels feature a slanted design to route patch cords directly into vertical cable managers on either side of the panel. This enables faster installation and eliminates the need for horizontal cable management.

The 1U accepts four modules and/or adapter panels and holds up to 96 fibers. The 2U accepts eight modules and/or adapter panels and holds up to 192 fibers.

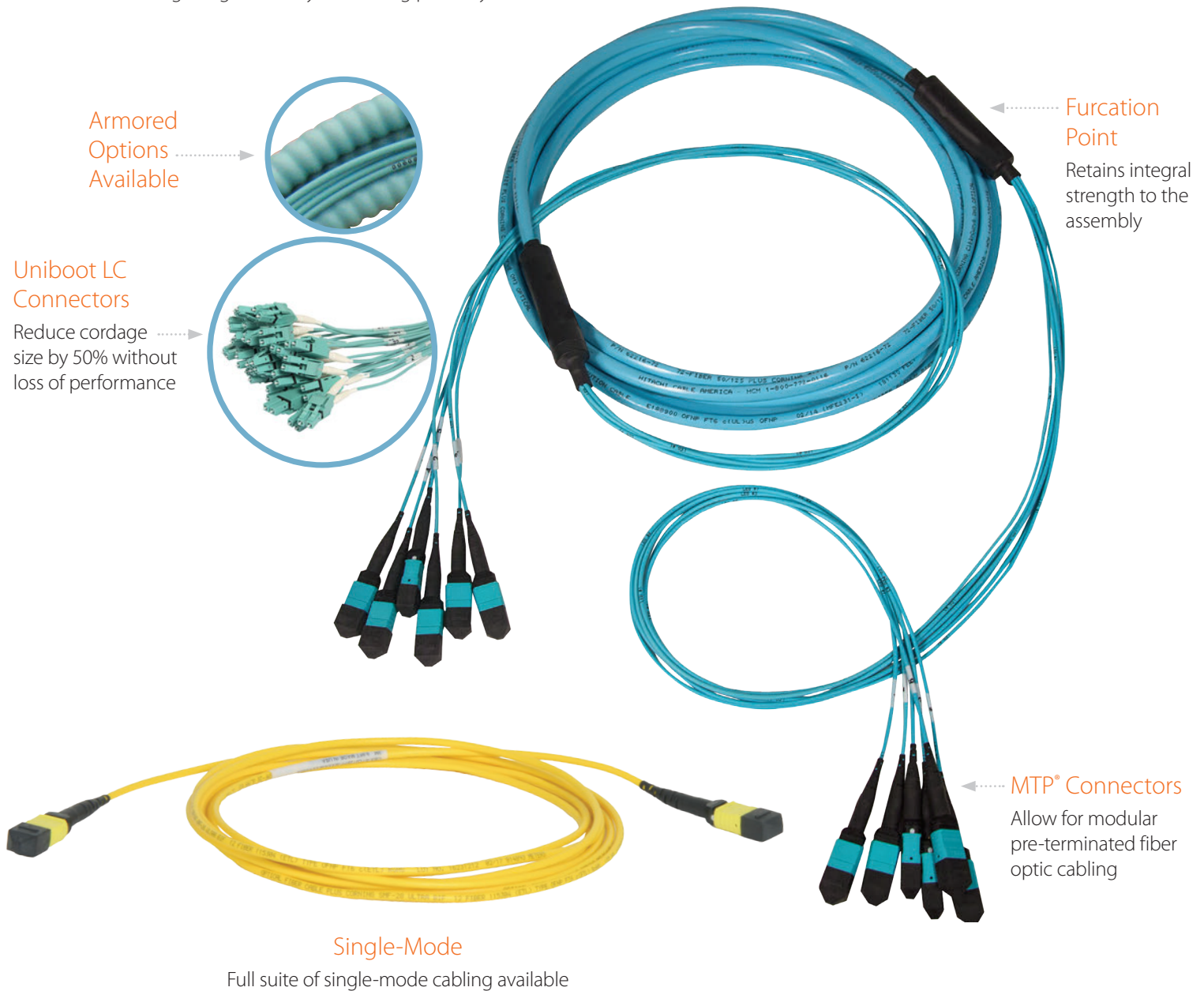## SLANTED DESIGN ENABLES CABLE MANAGEMENT

- Modular design is scalable to add modules as needed

- Allows for multiple connector types in each enclosure

- Can hold both fiber and copper

- Precision, stable spring couplers optimize performance and ensure network uptime

- Internal cable managers maintain proper bend radius

- Backed by a lifetime warranty

- Available with LC, SC, ST, MT-RJ, MTP or RJ45 adapters

Fiber Trunks

Fiber trunks are a convenient and economic alternative to running multiple jumpers through your data center. Trunks offer easy cable management as well as significantly reduced field installation times. They're easy to unplug, recoil, and reuse in the event of any moves, additions or changes.

- MTP® connector features the industry's highest-precision thermoplastic ferrule, designed to lower insertion loss allowing connections to be made while meeting or exceeding loss budgets

- Ultra-flexible 2mm MTP® breakout legs ensure critical airflow paths are not blocked in cabinets

- Trunking diameters are one-third of the competition, reducing congestion in your cabling pathways

- Highly customizable legs, lengths and breakouts

- Trunking options from 4- to 144-fiber count

- Up to 12-to-1 plug-in factor saves valuable install time

- Factory-terminated and tested ensuring performance

- Backed by a lifetime warranty

Armored Options Available

Uniboot LC Connectors

Reduce cordage size by 50% without loss of performance

Furcation Point

Retains integral strength to the assembly

MTP® Connectors

Allow for modular pre-terminated fiber optic cabling

Single-Mode

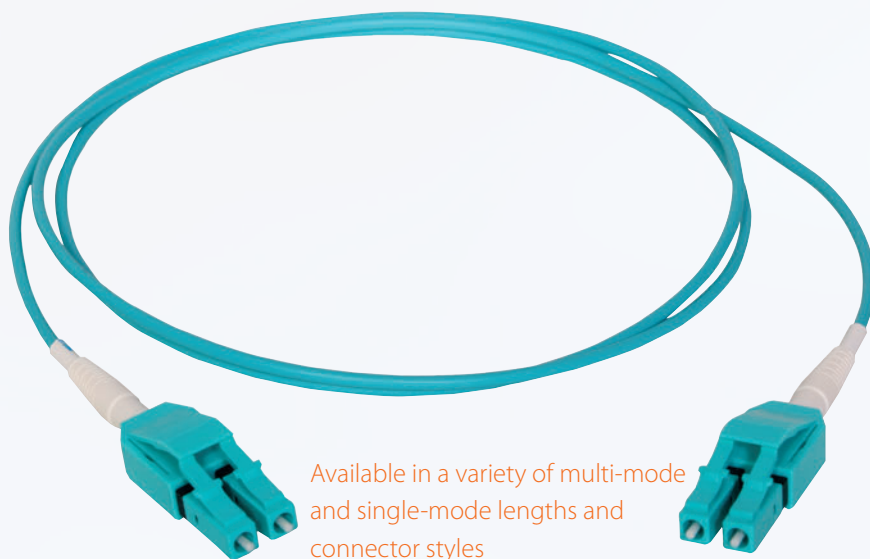Full suite of single-mode cabling available

Skinny-Trunk® Fiber Jumpers

The key to achieving maximum performance in a high-quality structured data center cabling system is through fiber jumpers.

Our Skinny-Trunk® fiber jumpers meet and exceed the industry's most stringent requirements for data center solutions, designed specifically for the mainframe and high-end SAN switching environments.

- Ideal for high-speed, mission-critical data center environments

- Available in a variety of multi-mode and single-mode lengths and connector styles

- Optimal Uniboot construction, allowing easier plug-in and unplugging and robust strain relief

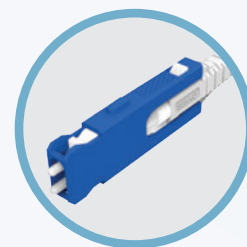- Designed for high performance – rigorously tested for repeatability and loss

New VSFF
(very small form factor)

Available in a variety of multi-mode and single-mode lengths and connector styles
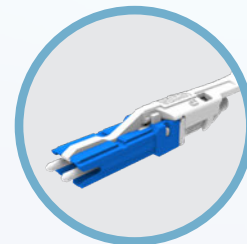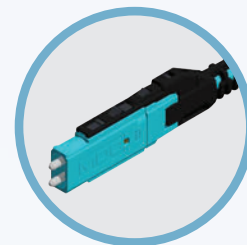
CS connector

SN® duplex connector

MDC duplex connector

Copper Trunking

Create a standards-based, flexible, and reliable copper platform in your data center.

CABLExpress® copper trunk cables are the highly customizable solution for your connectivity needs.

This assembly allows for easy moves, adds and changes.

The simplicity of its design allows existing staff to install the trunking system, thereby avoiding any potential security risks involved with bringing in outside personnel.

For the critical install, there's simply no better choice than the CABLExpress copper trunk assembly. You can minimize downtime, maximize productivity, and save money by deploying a reliable, easy-to-use copper trunking system.

Braided sleeve allows flexibility, while keeping cables in a manageable bundle

CAT6 couplers in our modular patch panels provide fast and reliable data connections

Standard and mini CAT6 available

CABLExpress EXP Series®

All the cabling you need, when you need it, at the price you want

EXP SERIES FIBER JUMPERS

CABLExpress EXP Series® fiber jumpers are 100% optically-tested and factory-terminated for superior performance. We stock a variety of multi-mode and single-mode lengths and connector styles ready to ship today, and custom assemblies are also available. We can build jumpers to your exact needs and requirements. Save money and get your cabling right away!

100% optically-tested and factory-terminated for superior performance

EXP SERIES COPPER PATCH CABLES

Our copper patch cables are the trustworthy, reliable way to carry all your data, voice and video signals. They're available with snagless boots for easy installation. Plus, with stock lengths and colors available for same-day shipping, there's simply no better way to future-proof your wiring infrastructure. Get competitively-priced cables ready to ship today!

With a diameter of just 0.148 inches, CABLExpress® mini Cat6 patch cables are smaller than standard Cat6 cables – using less critical space in your cabling infrastructure.

Cabinets and Racks

When it comes to housing your hardware, you need options that make your job easy and can accommodate any configuration you design.

CABINETS

We offer a wide variety of cabinets designed for high-density applications and side-to-side airflow equipment.

Our cabinets are available in multiple sizes and configurations, with numerous options for cable management. The cabinets are shipped fully assembled and capable of handling high-density switch, server and cable management requirements.

These cabinets can be used separately or ganged together to create a Main Distribution Area (MDA), the central point of the data center structured cabling system.

Cable Management Fingers
- Fingers come in 7 RMU sections
- Finger openings align with RMUs for easy cable pathways
- Finger sections are repositionable
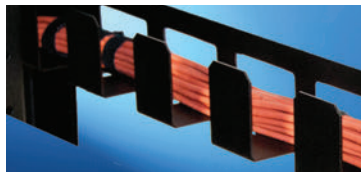
Horizontal Trough
- Route larger bundles from front to rear
- Can be placed in any vertical location

Baffle Kit
- Intake/exhaust kits for side-to-side airflow equipment
- Directs cool air in and exhaust air out of side-to-side airflow equipment

RACKS

You can save floor space and some money with our wide variety of easy-access rack options. Our CABLExpress® racks provide ample room for large cable bundles and come available with a number of cable management features.

Our racks are perfect for use in the Equipment Distribution Areas (EDA) of the data center.

Limitless possibilities for cabinet and rack configurations

Rack Mount Security Enclosure
The CABLExpress Rack Mount Security Enclosure (RMSE) is designed to ensure maximum physical security for the equipment in your racks. It is ideal for use in highly secure data centers, shared spaces, co-location facilities, and other areas where physical security is critical. Its hinged, mesh doors add additional ventilation. Featuring two types of locks, the RMSE works in both racks and cabinets.

Cable Management

We have patch panels, jacks, faceplates and cable managers to help you with all of your structured cabling projects. On top of that, we also carry the cable management products to keep your cabling infrastructure organized and your structured cabling system performing at its peak:

- Duct style managers for 1U (best for fiber optic cabling) and 2U (great for copper patch cords)

- 1U, 2U and 3U D-ring managers for 24-, 48-and 96-port patch panels

- A wide variety of cable ties/wraps with Velcro® fasteners

CABLE MANAGERS
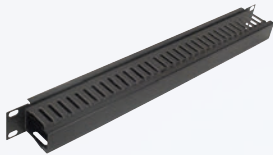
1U Duct Style

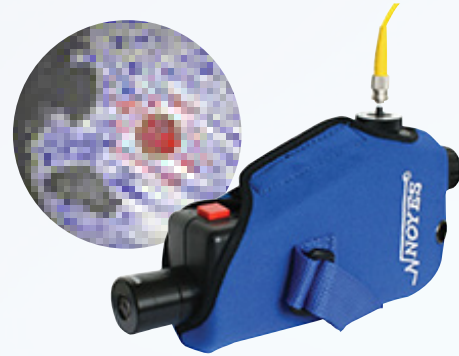

2U Duct Style

5 Ring

EA 1U Manager

PATCH PANELS

Optical Microscope

A majority of "defective" cables actually just have dirty end-faces!

We recommend inspecting the end-faces of cables before installation, and then cleaning them if necessary.

NOYES® OFS300-200C

One-Click Cleaners

End-face contamination can cause catastrophic failure. Particulates, skin oils, clothing fibers and other contaminants can decrease performance and cause channel errors – even causing DOWNTIME!

These easy-to-use, one-click cleaners allow you to follow best practices without investing a lot of time. Remember to always inspect, clean, inspect and repeat if necessary.

US CONEC IBC™ BRAND CLEANERS
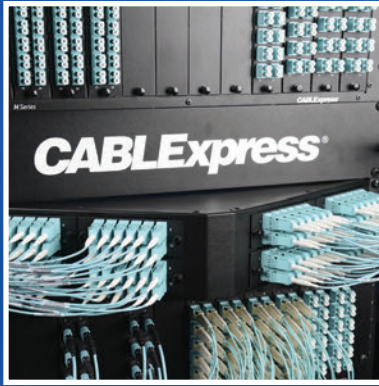
RESPECT
LAYER ONE®

CABLExpress®

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BROCADE ADDENDUM

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RESPECT LAYER ONE®

CABLExpress®

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Brocade® and CABLExpress

—Exceeds—
GEN7
Specifications

Brocade® provides comprehensive network solutions designed to transition data centers to a virtualized environment. However, an inadequate cabling solution can mean serious implications in terms of system compatibility, performance and ROI.

CABLExpress® high-performance fiber optic cabling solutions will make sure you're not sacrificing any of these.

Brocade and CABLExpress combine to ensure top performance and long-term ROI.

You've seen the benefits you get from Brocade hardware, now it's time to ensure you're getting the most out of it. When you cable up your Brocade switches with CABLExpress, you can:

- Achieve optimal performance
- Keep your cable management clean and neat
- Stay in compliance with TIA-942 standards
- Future-proof migration for the next generations of hardware

- Make maintenance on your switches much easier
- Implement the highest performance cabling system

Be protected whether you're running 16, 32, 64, 128 and 256Gb Fibre Channel!

Our design recommendations for 32-port, 48-port and 64-port line cards are featured on pages 21-25.

We Have Cabling Solutions For Every Brocade® Switch

ICL Cables

ICL stands for Inter-Chassis Link, and provides Ultra-Scale connectivity for Brocade director chassis to a core-edge or in an active mesh topology up to a distance of 2 kilometers, utilizing QSFP optics from dedicated ports.
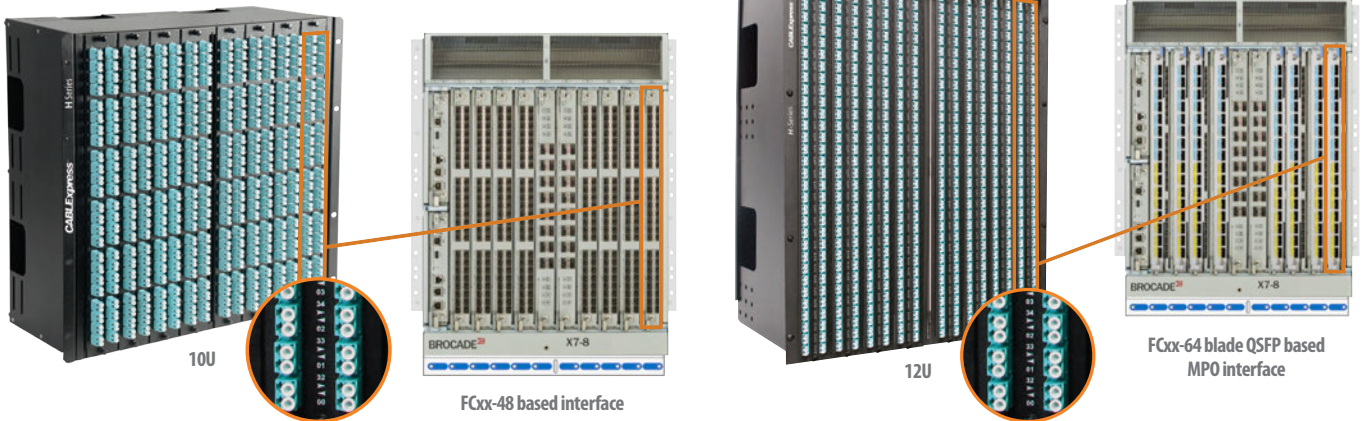
Port Replication

Port replication is a patching system that mirrors (duplicates) the active electronics in a passive environment.

This reduces cable management issues, decreases opportunities for patch errors and reduces wear and tear on the active ports.

H-Series enclosures are designed specifically to

replicate high-density director class switches.

This allows full replication in a Main Distribution Area (MDA) as recommended in the TIA-942 Data Center Standard.

10U

FCxx-48 based interface

12U

FCxx-64 blade QSFP based MPO interface

We can provide port replication for all switch types. Examples provided on the following pages.

Pre-Engineered Trunk Staggers

MTP TO MTP FOR FCXX-64 (SEE PAGE 21)

MTP 8

Label 28-31

Sub-unitized Style Trunk

XX"

3.5"

Label 28-31

Furcation Point

XXX

Label 0-3
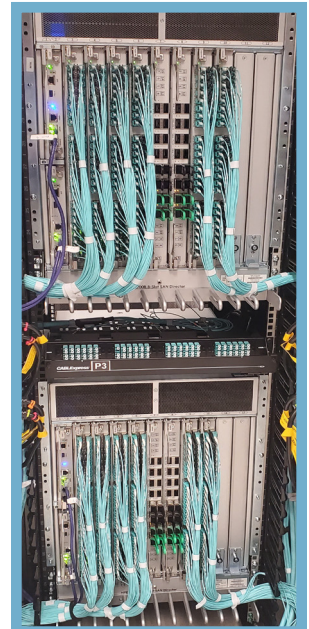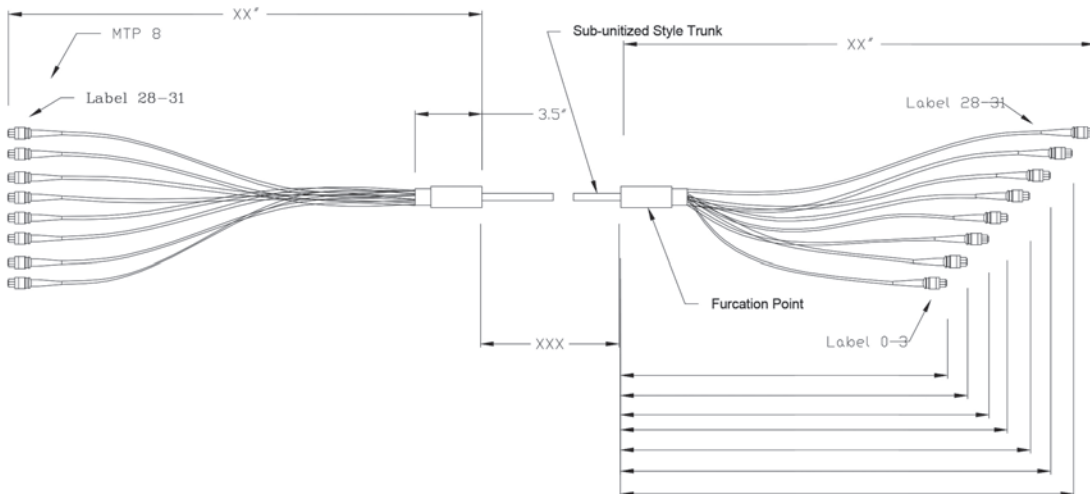
Pre-Engineered Trunk Staggers

MTP TO MTP FOR FCXX-64 (CON'T–SEE PAGE 21)


```
MTP 9  - Label both ends 32-35
MTP 10 - Label both ends 36-39
MTP 11 - Label both ends 40-43
MTP 12 - Label both ends 44-47
MTP 13 - Label both ends 48-51
MTP 14 - Label both ends 52-55
MTP 15 - Label both ends 56-59
MTP 16 - Label both ends 60-63
```
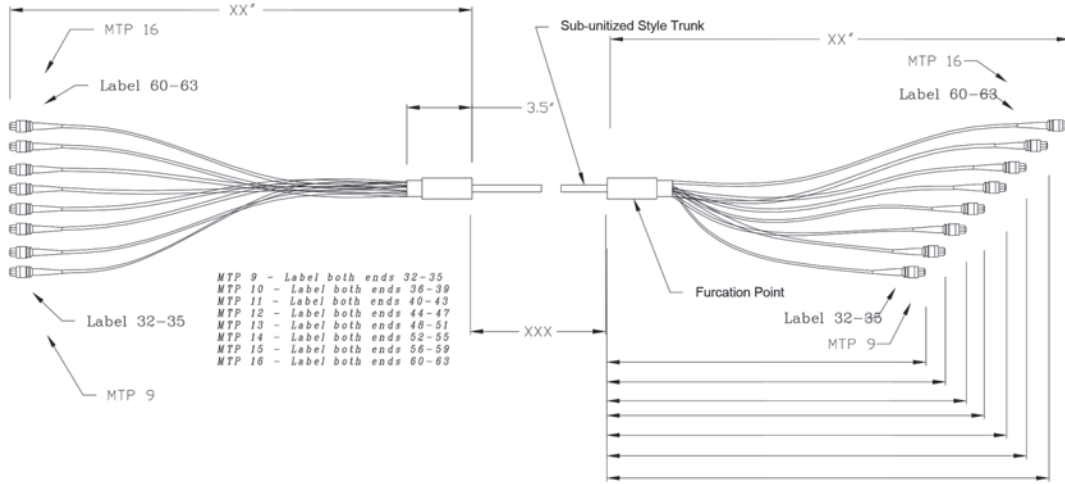
MTP TO LC FOR FCXX-48 (SEE PAGE 23)


```
MPO 8 = LCD 42,43,44,45,46,47
MPO 7 = LCD 36,37,38,39,40,41
MPO 6 = LCD 30,31,32,33,34,35
MPO 5 = LCD 24,25,26,27,28,29
MPO 4 = LCD 18,19,20,21,22,23
MPO 3 = LCD 12,13,14,15,16,17
MPO 2 = LCD 6,7,8,9,10,11
MPO 1 = LCD 0,1,2,3,4,5
```
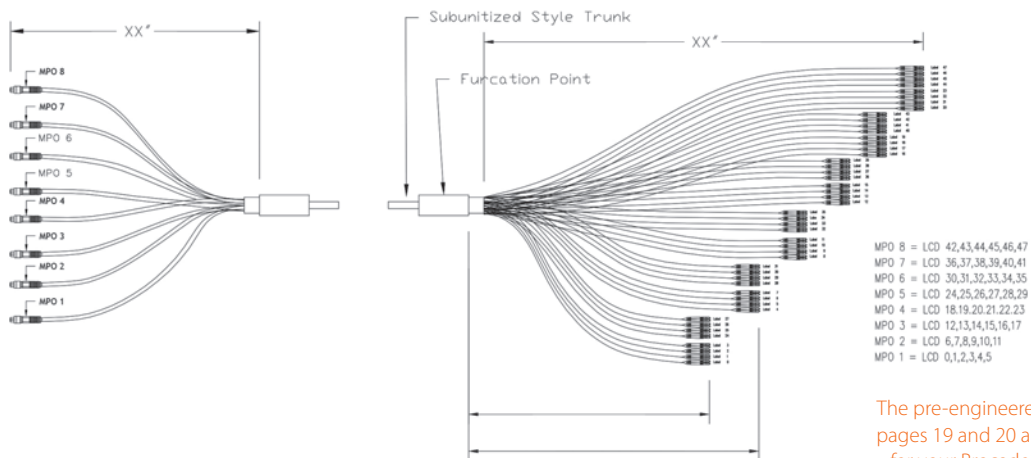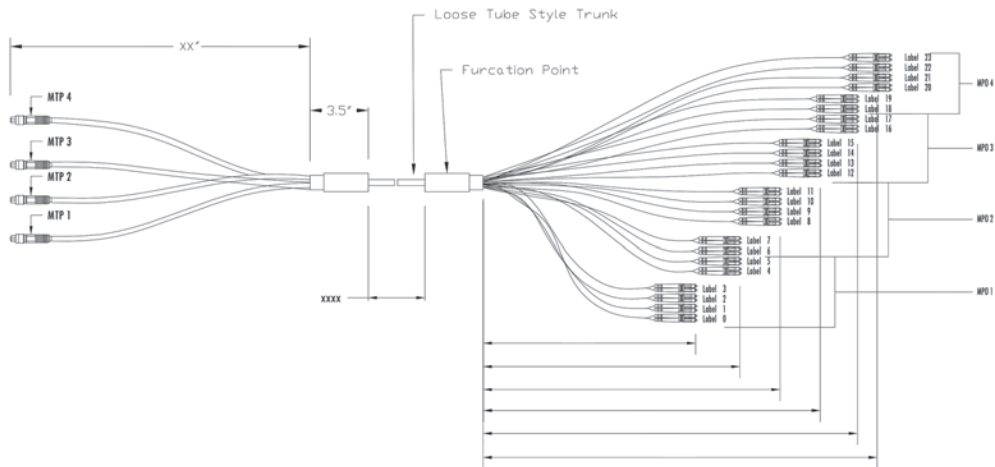
The pre-engineered staggers featured on pages 19 and 20 are specifically designed for your Brocade switch specifications.

With port replication™, switches can be neatly cabled a single time and then left alone. All active hardware can remain untouched until something needs to be physically replaced (fans, power supplies or blades). No more creating cabling spaghetti in front of switches.
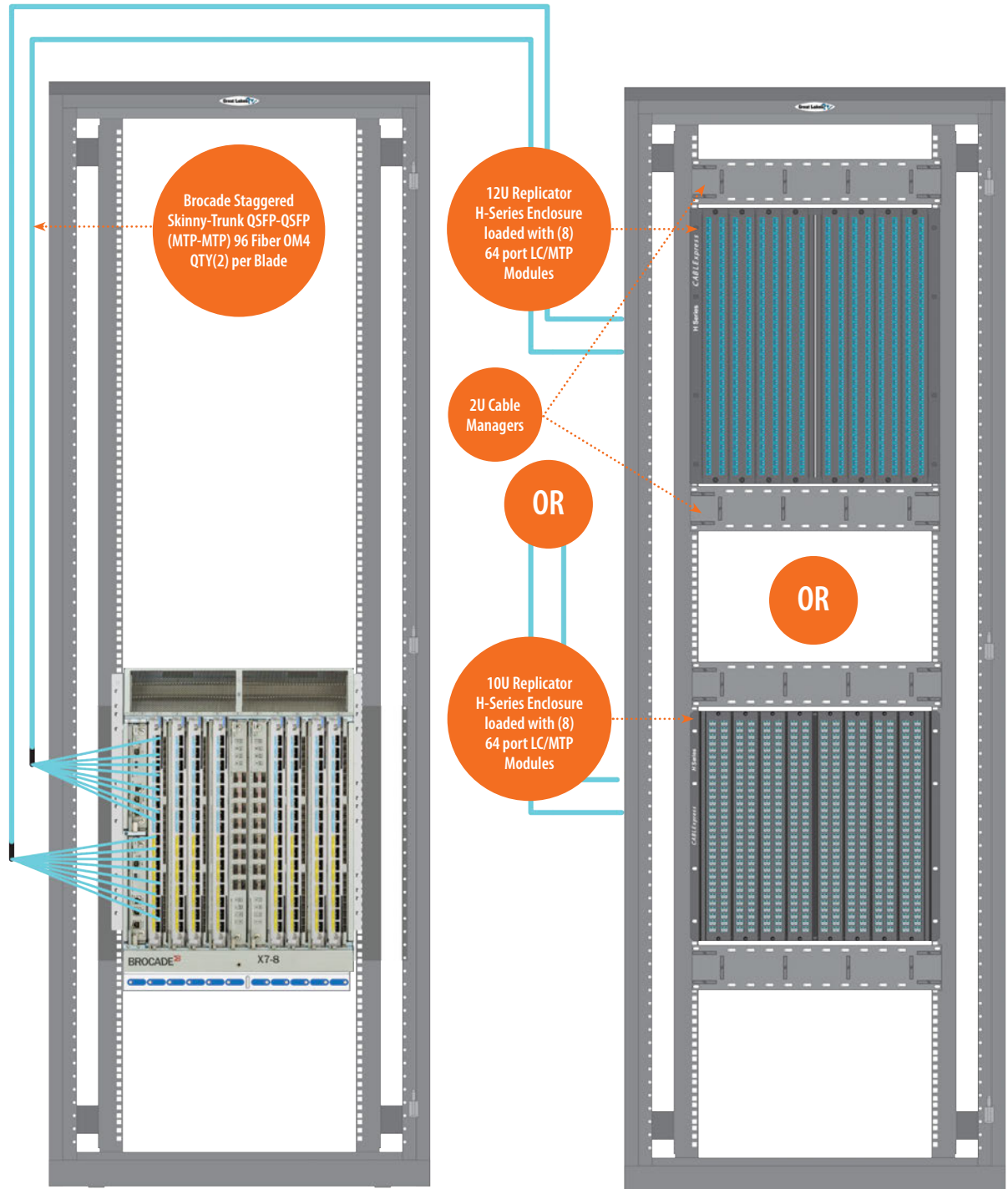
Brocade 512 port X7-8 Chassis Loaded with (8) FC32-64 Port Line Cards

Brocade Staggered Skinny-Trunk QSFP-QSFP (MTP-MTP) 96 Fiber OM4 QTY(2) per Blade

12U Replicator H-Series Enclosure loaded with (8) 64 port LC/MTP Modules

2U Cable Managers

OR

OR

10U Replicator H-Series Enclosure loaded with (8) 64 port LC/MTP Modules
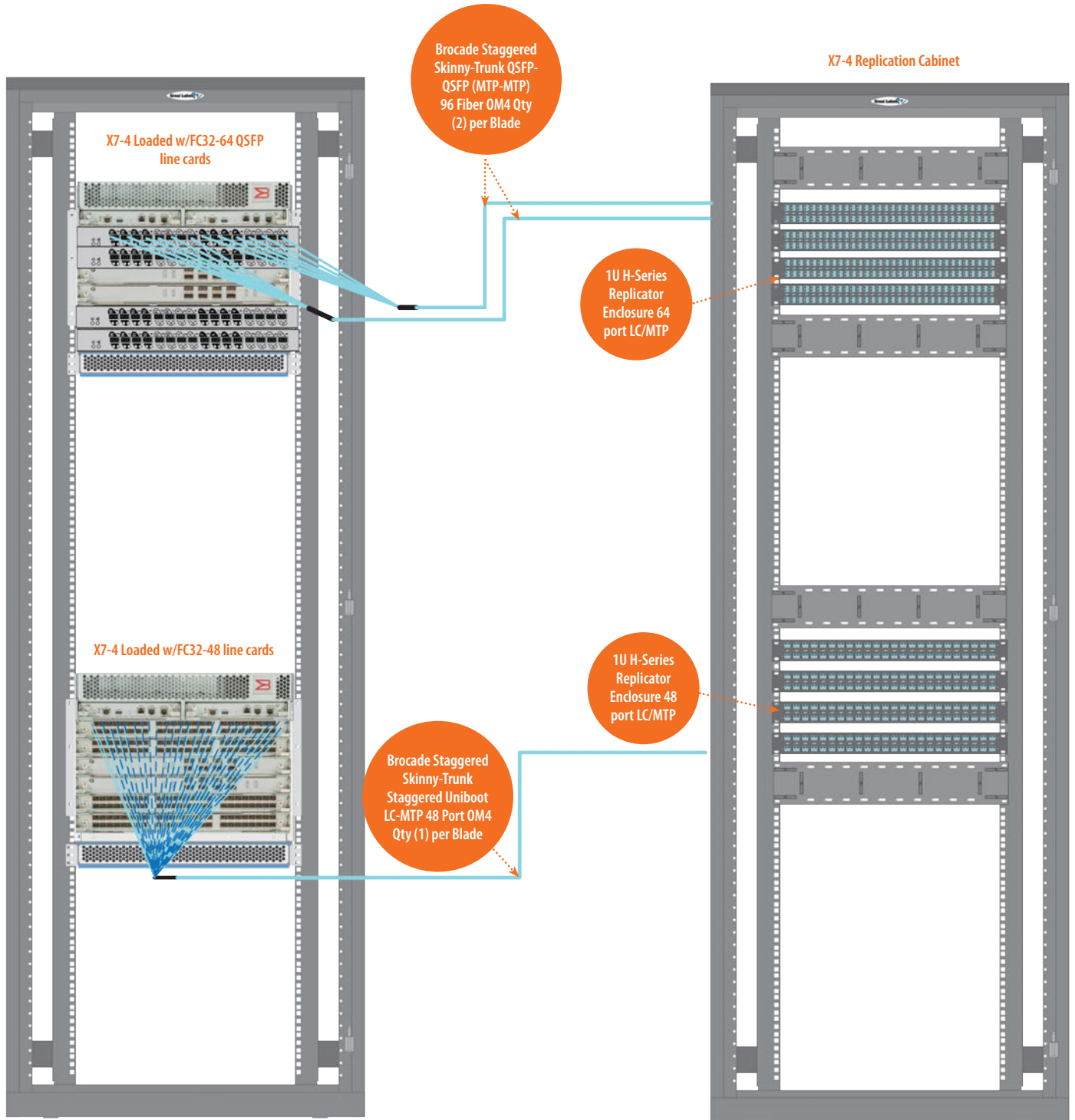
BROCADE   X7-8

When port replication is utilized in conjunction with a recommended TIA-942 structured cabling design, MACs are simplified by the exact one-to-one relationship between the hardware and panel ports. This significantly reduces the risk of human error, the most common cause of network downtime.

Gen-7, 48 & 64-Port Trunk Designs

X-7x4 Chassis, 256 QSFP or 192 SFP ports, Loaded with either (4) FCxx-64 Port Line Cards or (4) FCxx-48 Port Line Cards - H-Series 1U replication Enclosures

Brocade Staggered Skinny-Trunk QSFP-QSFP (MTP-MTP) 96 Fiber OM4 Qty (2) per Blade

X7-4 Replication Cabinet

X7-4 Loaded w/FC32-64 QSFP line cards

1U H-Series Replicator Enclosure 64 port LC/MTP

X7-4 Loaded w/FC32-48 line cards

1U H-Series Replicator Enclosure 48 port LC/MTP

Brocade Staggered Skinny-Trunk Staggered Uniboot LC-MTP 48 Port OM4 Qty (1) per Blade

Brocade G720

Gen 7, Brocade's G720 and G730 Switches support transceiver ports with SFP-DD optics with SN connectors, which allow them to achieve high port density.

SFP-DD port interfaces support the use of transceivers with new SN connector foot print, one of three, new generation of very small form-factor (VSFF) optical fiber connectors that have been optimized for space efficiency, reliability, and scalability.

SFP-DD ports can be populated with either single-channel SFP+ optics or dual channel SFP-DD optical transceivers, which allow the connection of two SN-connector terminated cables. The other end of the patch cable is most often an LC connector that can be plugged into LC-connect devices, standard LC patch

panels, or cable management systems. Whether using SFP+ or SFP-DD, cable management practices are no different from other standard single cabling systems.

The G720 scales from 24 to 64 ports with 48 SFP+ and 8 SFP-DD ports. Each SFP-DD port can accommodate either a single-channel SFP+ optic or a dual-channel SFP-DD transceiver, providing the flexibility to the switch. SFP-DD ports can be used to form dense, high-performance device connectivity or ISLs between Brocade switches and directors.

SN Duplex Optical Fiber Connector

The SN is a NEW Duplex connector for the Data Center and is optimized for next generation speeds of 128GbFC and 400Gb Ethernet.

The SN duplex optical fiber connector topology is regarded as a very small form factor (VSFF). The SN connector provides discrete and independent duplex fiber for a range of quad-style transceiver form factors, including the quad small form-factor pluggable [QSFP], quad small form-factor pluggable double density [QSFP-DD], and octal small form-factor pluggable [OSFP]. The SN connector is more efficient, reliable, and scalable than previous small-form-factor connectors like the LC.

• 40% size reduction compared to LC Duplex

• Designed for OSFP/QSFP-DD Break out application

QSFP-to-2-SFP-DD (4x SN) Optical Breakout Cables

Breakout cables can be used with SWL QSFP transceivers to connect the QSFP to individual SFP-DD ports at another switch ports, or an SN connector on a patch panel.

The Interface on the SWL QSFP side is still a female MTP 1×12, with a breakout to 4x individual SN connectors. The fiber used is minimum spec OM4 multimode fiber.

Broadcom also offers 2-km Gen 7 QSFP optics used for X7 ICL connectivity, as well as 2-km 32G QSFP optics used for X6 and X7 ICL connectivity at 32G speeds and

FC32-64 or G620/G630 switch Q-Flex port connectivity. These extended distance QSFP transceivers use a passive CWDM (coarse wave division multiplexing) design that combines four channels onto a common 9-µm single-mode fiber (SMF) cable with a standard LC connector on each end. For these applications, only CABLExpress' Skinny-Trunk™ of SMF LC-LC cable at the required length up to 2 km should be used.
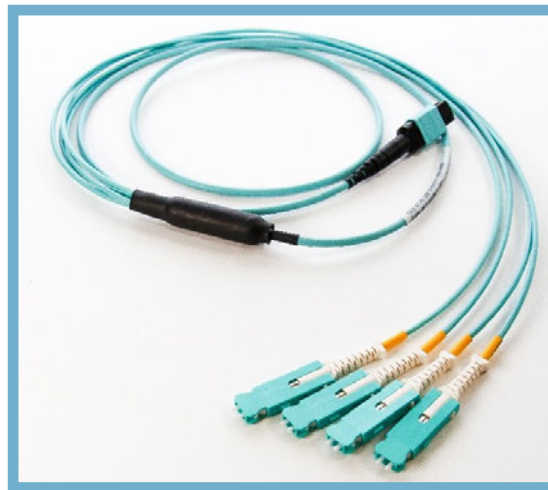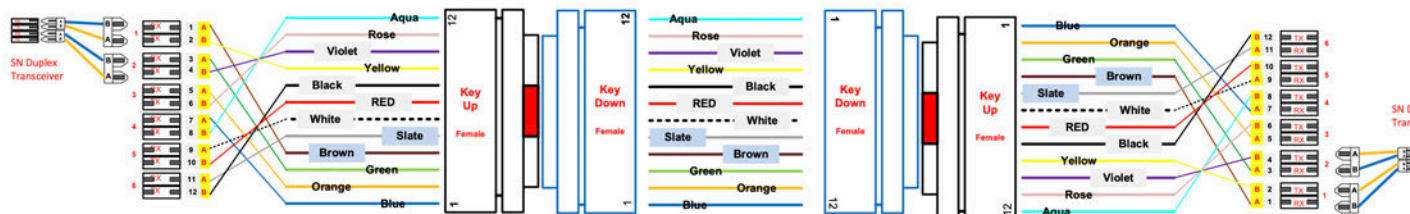

SN Duplex to SN Duplex Direct Connect:

OM4 Part Number
CXJ04-SN-SN-D2-xxxP

Description:
Duplex SN-SN Uniboot 2-Fiber jumper, xxxF(FEET)
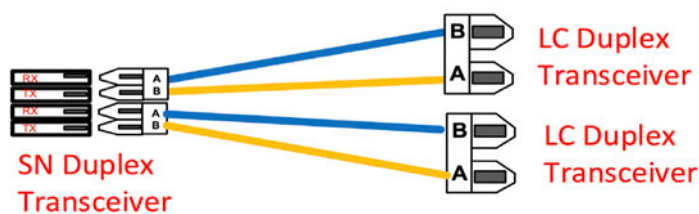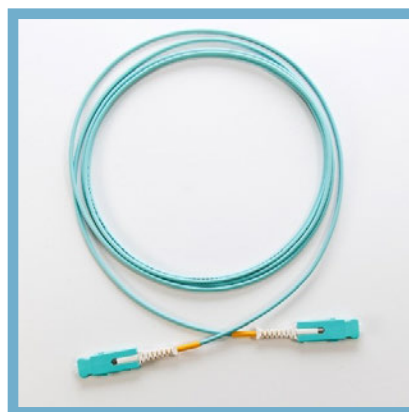
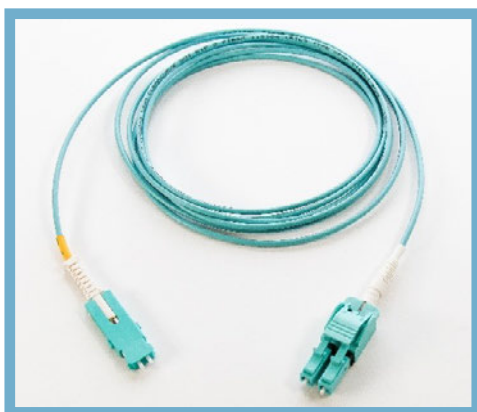# SN Duplex to SN Duplex Structured Cabling Interconnect

OM4 Part Number

CXJ04-SN-SN-D2-xxxP
CBX-HM-HHU48LCAZ-WF1250
CBX-STSxxxBPF-NxxP-NxxN-xxx
CBX-HE-XXX

Description:

Duplex SN-LC Uniboot 2-Fiber jumper, xxxF(FEET)
Skinny-Trunk™ MTP-LC Cassette 24 Ports
Skinny-Trunk™ MTP-MTP Trunk Cable(12-144 fiber)
Skinny-Trunk™ Enclosures; H, RSD, EA,Or Replicator series

OM4 Part Number

CXJ04-U2-SN-D2-xxxP

Description:

Duplex SN-LC Uniboot 2-Fiber jumper, xxxF(FEET)

SN Duplex to LC Duplex Structured Cabling Interconnect

OM4 Part Number

CXJ04-U2-SN-D2-xxxP
CXJ04-U2-U2-D2-xxxP
CBX-HM-HHU48LCAZ-WF1250
CBX-STSxxxBPF-NxxP-NxxN-xxx
CBX-HE-XXX

Description:

Duplex SN-LC Uniboot 2-Fiber jumper, xxxF(FEET)
Duplex LC-LC Uniboot 2-Fiber jumper, xxxF(FEET)
Skinny-Trunk™ MTP-LC Cassette 24 Ports
Skinny-Trunk™ MTP-MTP Trunk Cable(12-144 fiber)
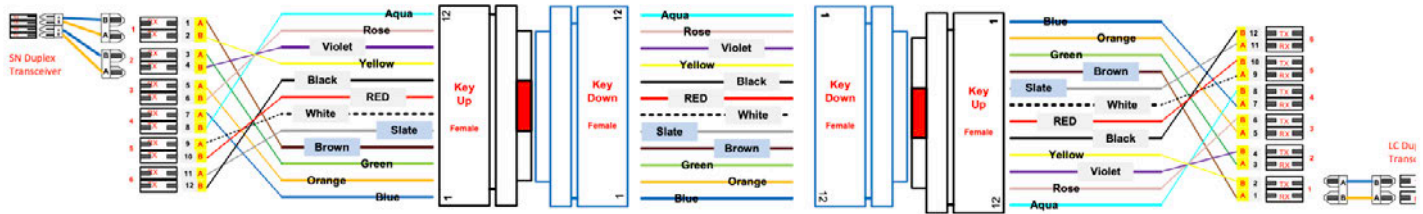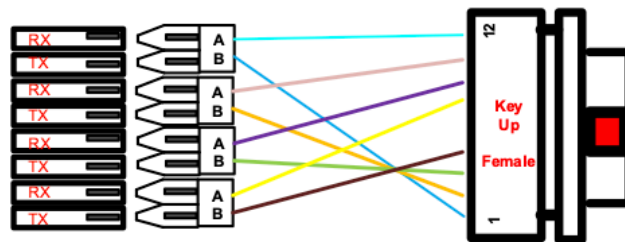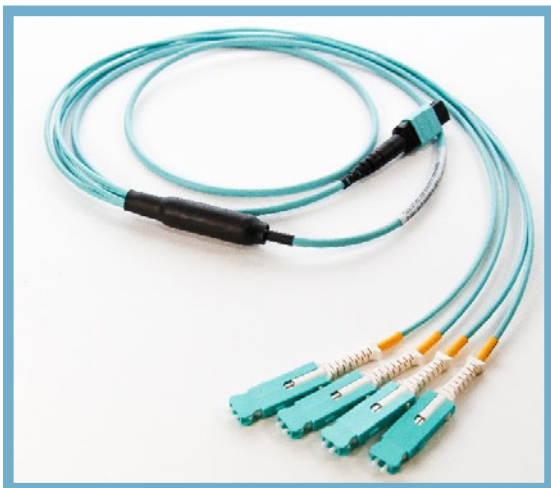Skinny-Trunk™ Enclosures; H, RSD, EA, Or Replicator series

SN Duplex to MTP Harnesses

OM4 Part Number
CBX-STH008BPQ-MxxN-DxxN-xxx

Description:
Skinny-Trunk™ Harness MTP-MTP-SN 8 fiber/4 Channel

Port Replication Rack Mount Modules

CABLExpress' Port Replication Rack Mount Modules offers a direct one-to-one relationship between the ports on your hardware to the ports on the patch panel.

This reduces the chance for patching errors since the ports are numbered and oriented exactly the same. Your moves, adds, and changes become foolproof. No more referencing spreadsheets to determine the correlation of a port on the patch panel to the corresponding port on the switch.

True "plug and play" patch panel solution that enhances the cost benefits and scalable architecture of the G720 or G620, as well as integrating the benefits of structured cabling and port replication into the SAN. Our port replication patch panels are pre-wired to convert the G720 SN Ports or G620 QFLEX MPO ports into duplex LC ports.
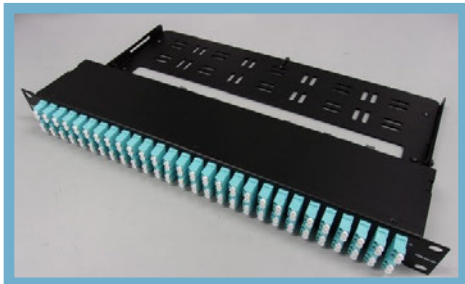
This means no complicated and messy conversion harnesses.

OM4 Part Number
CBX-HRM-H0164LCAZ1157/1204/1309

Description:
G720 CABLExpress 1U Port Replication™ Rack Mount Module w/ sliding rear manager; 64 PORT/128 Fiber LC DUPLEX/14 MTP OM4 MULTIMODE; Brocade G720 Screened LC/SN Ports

G620/30/G720 1u replication Solutions, with Flex Ports and Next Gen SN SFP-DD Ports

Brocade Staggered Skinny-Trunk Harness
Staggered Uniboot LC/SN-MTP 6 Port OM4
OR
Brocade Staggered Skinny-Trunk
Staggered Uniboot LC-MTP 48 Port OM4

1U H-Series Replicator
Brocade G720/620 48 to 64 ports flexibility

G620/630 Replication Cabinet

1U H-Series G720/620 Replicator Enclosure 64 port LC/MTP
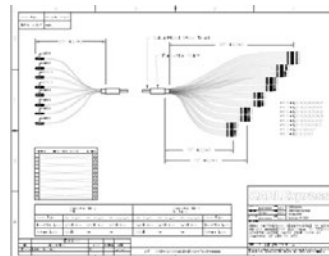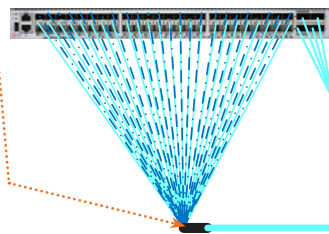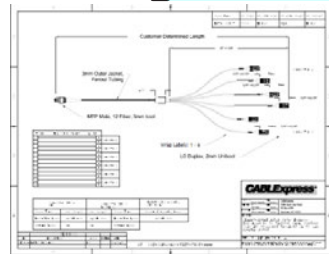
To Replication Enclosures or Feed Thru Panels

Brocade Staggered ICL or LC flex ports Trunks; MTP-MTP 48 fiber;

***could be 12 fiber MTP-MTP also**

To Replication Enclosures or Feed Thru Panels
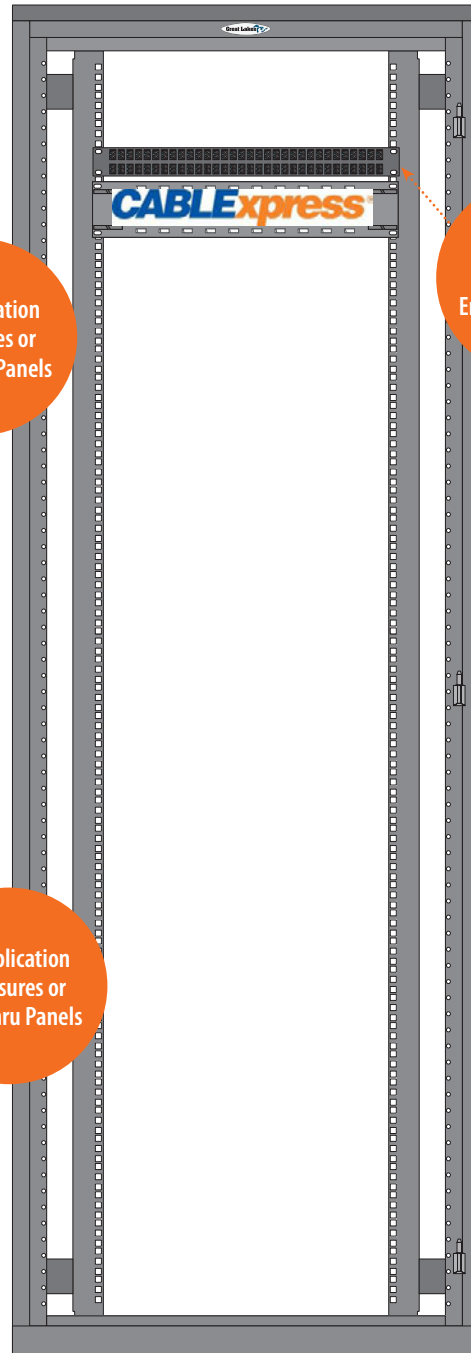
48-Port Blades Trunk Design

384-Port X7 Chassis Loaded with (8) FCxx-48 Port Line Cards - H-Series 10U 8-Slot Enclosure

Pre-Engineered Skinny-Trunk Uniboot LC-MTP 48 Port OM4 QTY (1) per Blade
OR
Staggered Uniboot LC-MTP 24 Port OM4 QTY (2) per Blade

H-Series 10U 8-Slot Enclosure loaded with (8) 48 port LC/MTP modules

2U Cable Managers
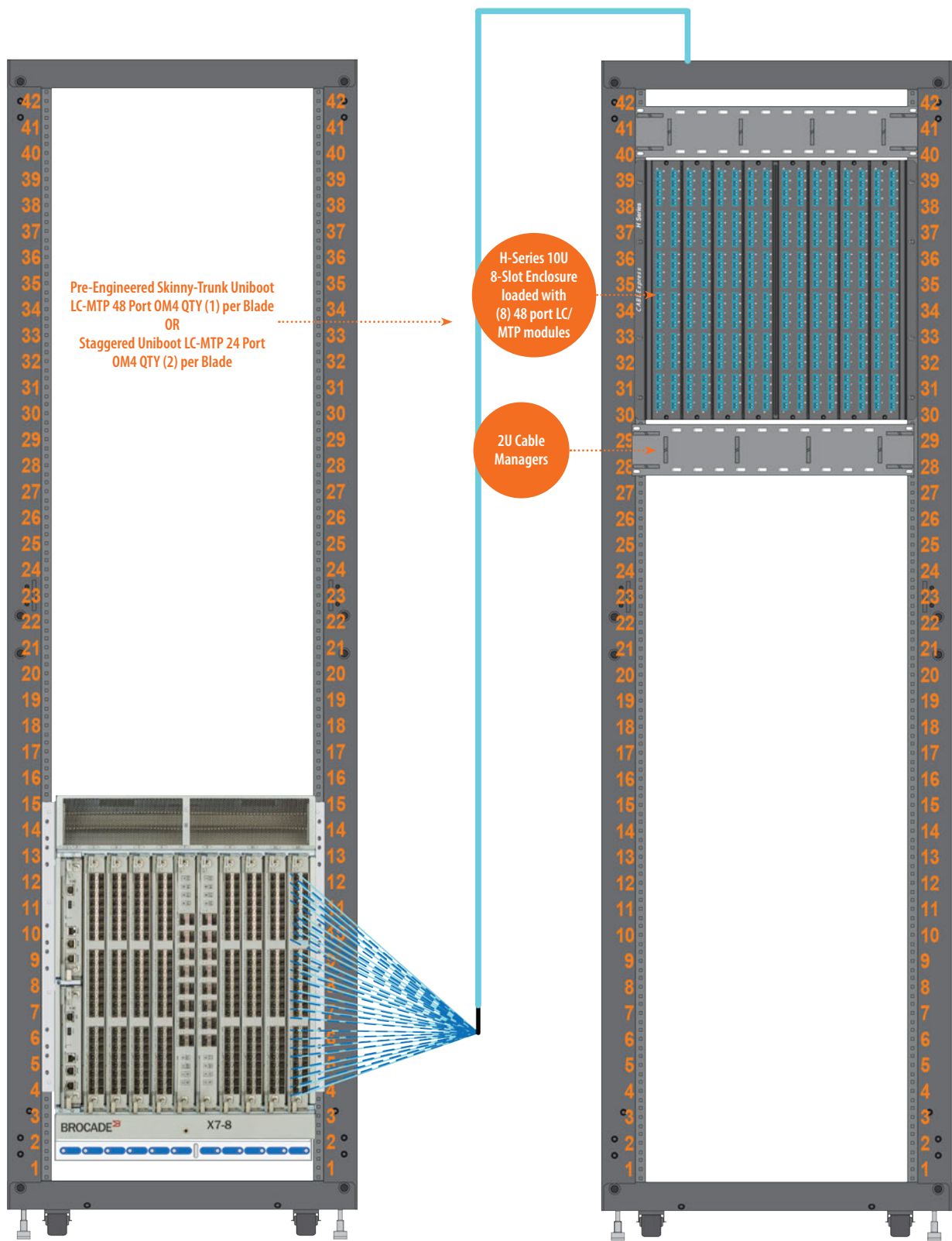
BROCADE X7-8

48-Port Blades Harness Design

Brocade 384-Port X7 Harness Design Loaded with (8) FCxx-48 Port Line Cards - H-Series 10U 8-Slot Enclosure

CABLExpress MTP-MTP Skinny-Trunk 48 Port OM4 QTY (1) per 48 Port Blade

H-Series 4U Enclosure loaded with (8) 8 Port MTP-MTP Feed Thru Adapters

H-Series 10U Enclosure loaded with (8) 48 Port LC-MTP Modules

2U Cable Managers

Pre-Engineered Brocade Staggered Skinny-Trunk Harness 6 Port MTP-LC OM4 Brocade Qty (8) per 48 Port Blade
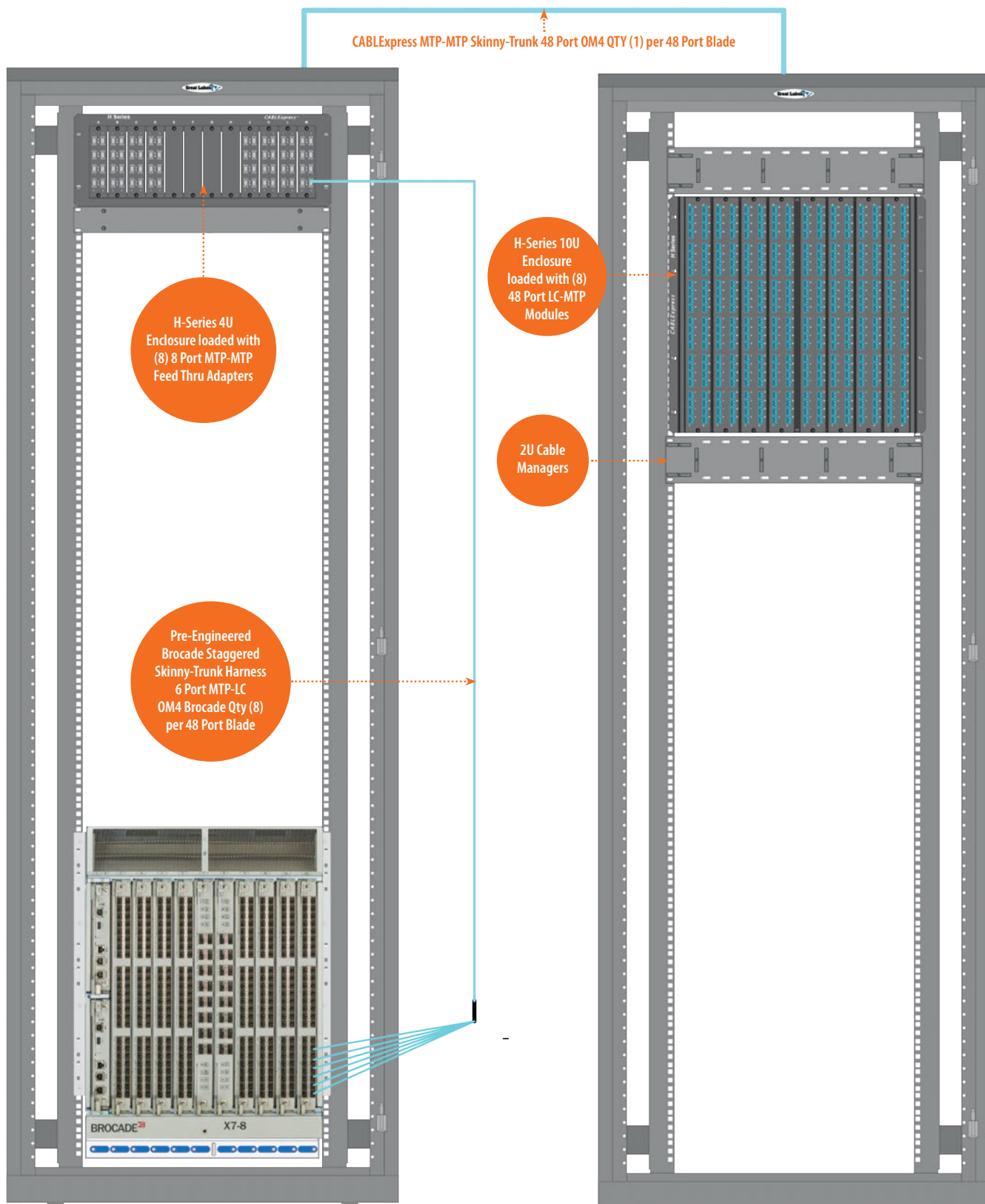
Brocade X6/X7 Inter-Chassis Links (ICL) with OS2 Glass

(2) 96 fiber MTP/male to MTP/male OS2 trunk – Core A; Light Path: ANSI/TIA-568.3-E Light Path: U1 example.
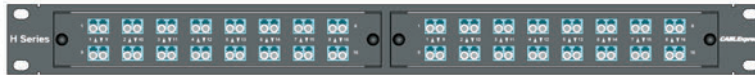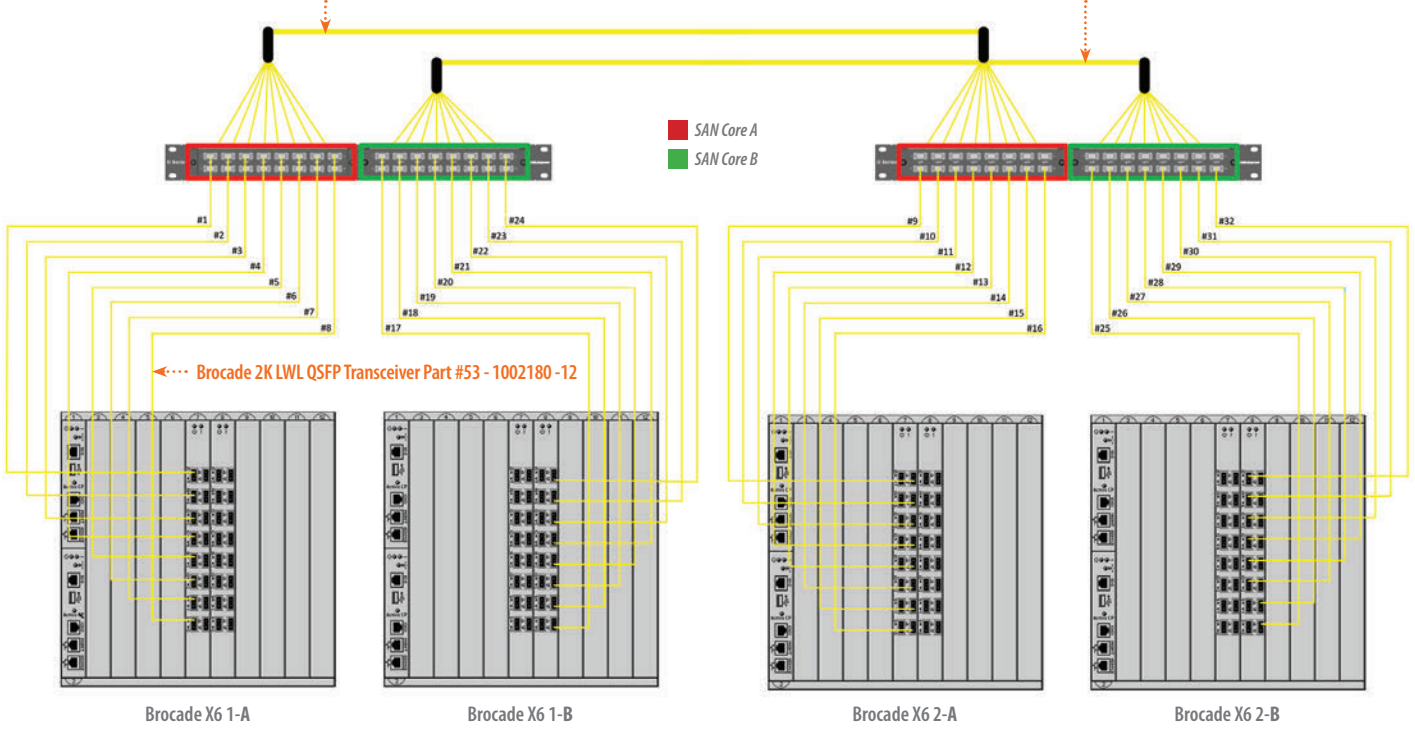
Each X6 receives (32) ICL cables – (16) from Left and (16) from Right

(2) 96 fiber MTP/male to MTP/male OS2 trunk – Core B; Light Path: ANSI/TIA-568.3-E Light Path: U1 example.

SAN Core A
SAN Core B

#1
#2
#3
#4
#5
#6
#7
#8

#24
#23
#22
#21
#20
#19
#18
#17

#9
#10
#11
#12
#13
#14
#15
#16

#32
#31
#30
#29
#27
#26
#25

Brocade 2K LWL QSFP Transceiver Part #53 - 1002180 -12

Brocade X6 1-A

Brocade X6 1-B

Brocade X6 2-A

Brocade X6 2-B

1U Enclosure with (2) 16 port MTP-LC cassettes

16 port MTP/female-LC Cassette Light Path: WF

16 port MTP/female-LC Cassette Light Path: WF

48 fiber MTP/male to MTP/male OM2 trunk ANSI/TIA-568.3-E Light Path: U1 example.

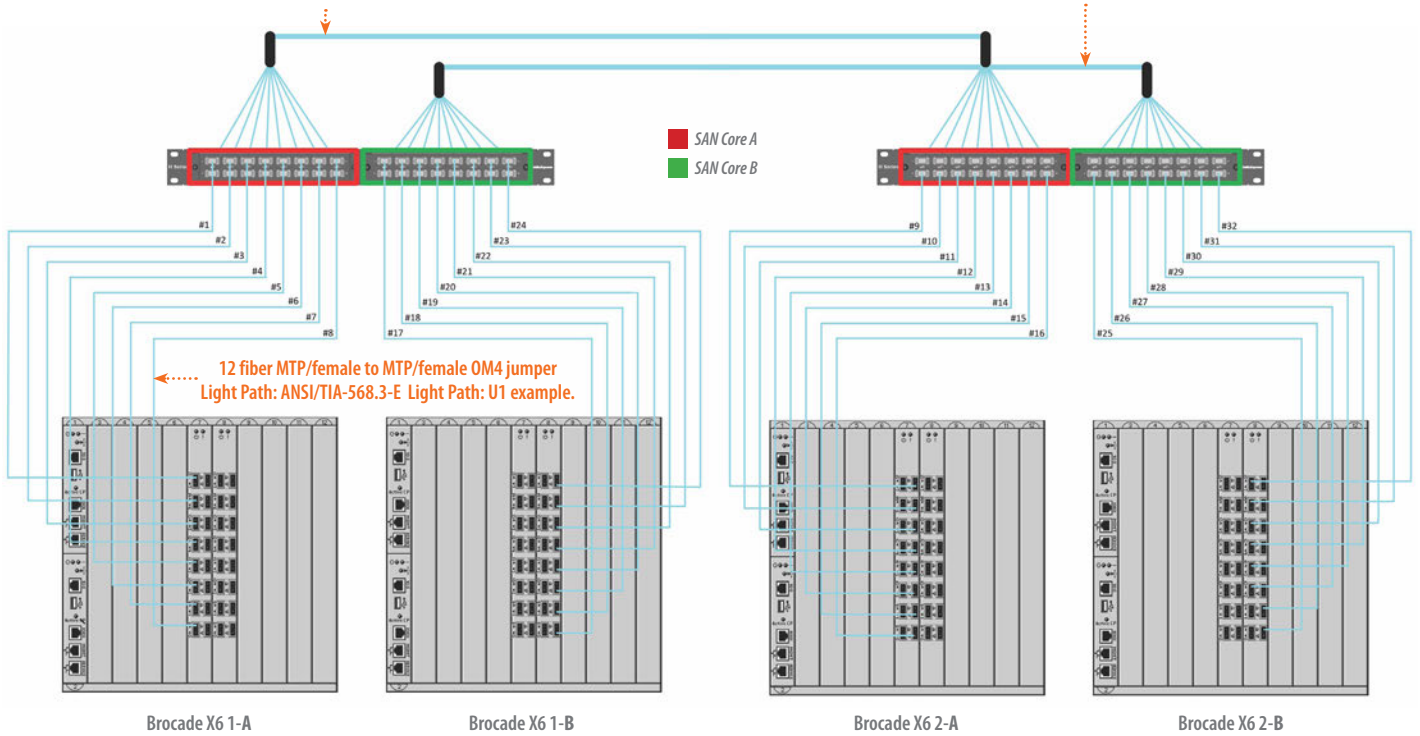**Duplex LC to LC OS2 jumper Light Path: A-to-B**

Duplex LC to LC OS2 jumper Light Path: A-to-B

Brocade X6/X7 Inter-Chassis Links (ICL) with OM4 Glass

(2) 96 fiber MTP/male to MTP/male OM4 trunk – Core A; ANSI/TIA-568.3-E Light Path: U1 example.

Each X6 receives (32) ICL cables – (16) from Left and (16) from Right

(2) 96 fiber MTP/male to MTP/male OM4 trunk – Core B; ANSI/TIA-568.3-E Light Path: U1 example.

■ SAN Core A
■ SAN Core B

#1
#2
#3
#4
#5
#6
#7
#8

#24
#23
#22
#21
#20
#19
#18
#17

#9
#10
#11
#12
#13
#14
#15
#16

#32
#31
#30
#29
#28
#27
#26
#25

12 fiber MTP/female to MTP/female OM4 jumper Light Path: ANSI/TIA-568.3-E Light Path: U1 example.

Brocade X6 1-A   Brocade X6 1-B   Brocade X6 2-A   Brocade X6 2-B

1U Enclosure with (2) 16 Coupler MTP Feed thru Panels

16 Coupler MTP Feed thru Panel

16 Coupler MTP Feed thru Panel

12 fiber MTP/female to MTP/female OM4 jumper Light Path: ANSI/TIA-568.3-E Light Path: U1 example.

48 fiber MTP/male to MTP/male OM4 trunk Light Path: ANSI/TIA-568.3-E Light Path: U1 example.

12 fiber MTP/female to MTP/female OM4 jumper Light Path: ANSI/TIA-568.3-E Light Path: U1 example.

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