

BELDEN

FiberExpress®
UHD System

ULTRA HIGH-DENSITY RACK-MOUNT FIBER
CONNECTIVITY SYSTEM

Elegantly simple yet uncompromisingly flexible.
Ultra high-density rack-mount fiber connectivity system,
crafted for effortless installation and maintenance.

Faster.
Easier.
Better.



FiberExpress® UHD System

The FiberExpress UHD System is the Next Evolution in Convenient, Easy-to-use, High-density Fiber Connectivity

ULTRA HIGH-DENSITY RACK-MOUNT FIBER CONNECTIVITY SYSTEM

FASTER

- Faster field-termination with sliding, tilting drawers
- Faster pre-term installation with fixed shelves and cassettes

EASIER

- Easier installation with tool-less removable drawers and lightweight housings
- Easier port identification with clear visible labeling
- Easier to configure with flexible port count LC, SC, ST and MPO modules

BETTER

- Better fiber protection with covered patch cord tray
- Better density with up to 72 LC Duplex ports per 1U
- Better visibility with light colored Titanium finish

Key Features

- 1U, 2U, and 4U configurations
- 19" and 23" rack mount options
- Feature rich housings and fixed shelves
- Support for pre-term and field termination
- Ultra high cabling density: up to 72 LC Duplex or MPO adapters per 1U
- Superior cable management and access
- Efficient one-person installation
- Adaptable for present and future needs

FX UHD System

The Belden FX UHD system delivers flexible fiber connectivity for varying port counts in Data Centers and LANs:

- Top-of-rack configurations with low-to-medium port counts
- End-of-row configurations with medium-to-high port counts

An intuitive, modular design avoids having to learn different systems to support different needs. With fewer components to be stocked for different configurations, MACs are fast and efficient.

Maximize Revenue with the Highest Density Connectivity

Evolving high-density computing and storage requires scalable connectivity for both Data Center and LAN applications. Double that of comparable units, the FX UHD system offers the highest density available to accommodate up to:

FX UHD Housing (1U, 2U and 4U Density)

- 72 LC Duplex Connectors (144 fibers) per 1U or,
- 72 MPO Connectors per 1U
- 90 LC Duplex Connectors (180 fibers) per 1U (23") or,
- 90 MPO Connectors per 1U (23")

FX UHD Fixed Shelf (1U)

- 72 LC Duplex Connectors (144 fibers)
- 72 MPO Connections

FX UHD Fixed Shelf (4U)

- 180 LC Duplex Connections (360 fibers)
- 180 MPO Connections

This 50% space reduction means more active equipment per rack—and increased revenue per square foot in the Data Center. Alternatively, less space required for LAN equipment lowers OPEX for end-users.

Faster.
Easier.
Better.

Our End-to-End Expertise.
Your End-to-End Solution.

Choose Between a FiberExpress UHD System with a Feature-Rich FX UHD Housing or Entry-Level FX UHD Fixed Shelf

FX UHD System

Based on innovative design and assembly, and crafted of the highest quality materials, the largest 4U FX UHD housing weighs only 2.4 kg (5.4 lb) installed. Tool-less removable trays allow a single installer to safely maneuver the lightweight housing and secure the system into the rack.

In today's critical fiber networks, accidental interruption during MACs can have significant financial consequences. The sleek unencumbered front faceplate provides plenty of space for shelf identification, while always-visible port labeling ensures the right fiber is found every time.

The sliding module tray of the FX UHD housing provides access and visibility to individual cassettes and frames, further reducing maintenance efforts.

Protect your investment while accommodating legacy connectivity today

Meet the challenges of balancing future needs while maintaining legacy infrastructure. The FX UHD System provides a cost-effective upgrade path from current 1G and 10G to 40G and 100G networks.

Its flexible modular approach supports legacy ST and SC and modern LC and MPO applications. Easily upgraded via simple cassette or adapter frame changes, there is no need to replace the entire system—a cost-effective investment today with scalability for tomorrow.

Optimize space in mixed media environments with KeyConnect support

Using a standard Belden KeyConnect frame with modular inserts makes it possible to combine fiber, copper and multimedia connectivity all in the same rack unit of space.

Feature-Rich FX UHD Housing

While current trends have reduced the need for splices, FX UHD System supports a field-upgradable, 144 splice tray housing kit that is easily added to any or all of the system's 1U module trays.

Without the splice tray, the standard FX UHD housing reduces the depth by more than 25 cm (>10") compared to competitive products. The added space allows for easier, clean cable management and opposite-rail-mounted equipment to increase total rack unit space.

Removable front and rear cable trays add to system flexibility. The system's reduced physical footprint also enables additional mounting options—including shallow racks and cabinets, vertical mounting configurations, and floor and ceiling boxes.

Speed up the install process and eliminate errors with the installer-friendly sliding and tilting module tray

The sliding module tray slides out of the rack and tilts down at a 23-degree angle for superior accessibility. A quickly installed lid and front patch cord tray provides unprecedented visibility to the work at hand. Improved accessibility and visibility means a faster, error-free installation.



A single installer can install the system.



Shelf identification labeling is clearly visible.



Slide-in trays tilt outward to improve accessibility.



Entry-Level FX UHD Shelf

As the push toward higher density in the Data Center continues, racks and cabinets are beginning to shrink in depth causing other active equipment, such as PDUs, to encroach on the space traditionally reserved for patch panels. To address this unique challenge, the FX UHD shelf is available in both standard and recessed versions. With only 65 mm (2.56") from the rack rear to the front of the patch cord tray, the recessed version requires little clearance. This enables it to fit behind even the largest of PDUs. A removable door provides both protection and labeling without requiring any additional space to fully open for maximum flexibility.

To Learn More...

For more information call **1.800.BELDEN.1** (1.800.235.3361) or visit our web site at **www.belden.com** for more information on Belden FX UHD Systems.

Termination Type	Feature-Rich FX UHD Housing	Entry-Level FX UHD Shelf
Pre-Term Assemblies		
MPO Trunks	✓	✓
Jacketed Fan-Out	✓	✓
900 μm Fan-Out	✓	X
Field Termination		
Pig-Tail w/Splicing	✓	X
900 μm Connectorization (ie. FX Brilliance)	✓	X
Jacketed Connectorization	✓	✓

With the same look and feel, the cost effective FX UHD Shelf and the feature-rich FX UHD Housing can be mixed and matched to create unique Half Pre-Term systems that provide field termination benefits like exact cable length, the ability to fit in smaller conduits, and rapid cost-effective installation of pre-term solutions.

FX UHD Housing



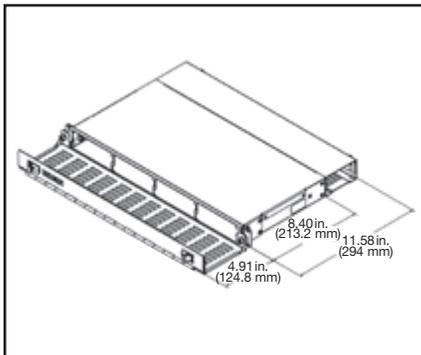
Description	Belden Part Number	
	Titanium	Black
1U Housing with Front and Rear Cable Tray	AX104681	AX105563
2U Housing with Front and Rear Cable Tray	AX104682	AX105564
4U Housing with Front and Rear Cable Tray	AX104683	AX105565
4U 23" Housing with Front and Rear Cable Tray	AX105379	-
Optional 1U Splice Housing Kit, 72 Splices (add up to 4 on the 4U Housing)	AX105174	AX105677
Optional 1U Splice Housing Kit, 144 splices (add up to 4 on the 4U Housing)	AX104684	AX105678
Optional Patch Cord Tray Cover, 19in	AX105162	AX105672

FX UHD Fixed Shelf

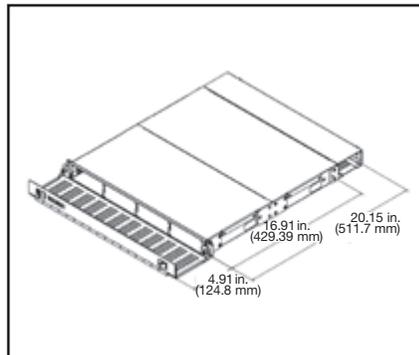


Description	Belden Part Number	
	Titanium	Black
1U Standard Fixed Shelf	AX105164	AX105673
1U Recessed Fixed Shelf	AX105165	AX105674
4U Standard Fixed Shelf	AX105166	AX105675
4U Recessed Fixed Shelf	AX105167	AX105676

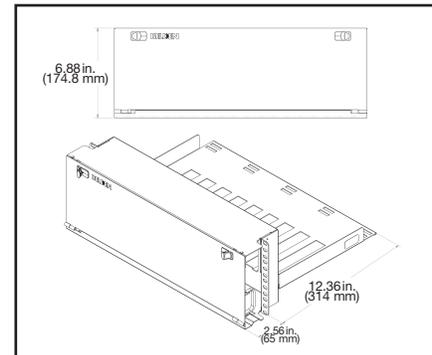
FX UHD Patch Panel Dimensions



FX UHD 1U Housing



FX UHD 1U Housing with mounted Splice Housing Kit



FX UHD 4U Recessed Shelf

See individual tech-data sheets for dimensions of 19" and 23" 4U FX UHD Housings, 2U FX UHD Housing, 1U and 4U FX UHD Standard Shelves and 1U FX UHD Recessed Shelf.

Our End-to-End Expertise.
Your End-to-End Solution.

FX Ultra and UHD Pre-Terminated Cassettes



Building a SmartPart Number

Fixed Letter Series

FC

1. Choose Fiber Type

3

2. Choose Product Family

U

3. Choose Port Count (Patch Side)

03

4. Choose Connector (Patch Side)

LD

5. Choose Connector (Trunk Side)

MM

6. Choose Polarity (Trunk)

A

7. Choose Adapter Color

A

Fiber Type	Product Family
1 OM1	H FX UHD
3 OM3	U FX Ultra (1" Pull)
4 OM4	L FX U Angled Left
S OS2	R FX U Angled Right

Port Count (Patch Side)	Connector (Patch Side)
03	LD LC Duplex
06	LA LC/APC Duplex
12	LS LC Duplex w/Shutters
18	LQ LC/APC Duplex w/Shutters
	SD SC Duplex
	SC SC Simplex
	SA SC/APC Duplex
	SB SC/APC Simplex
	SS SC Duplex w/Shutters
	SR SC Simplex w/Shutters
	SQ SC/APC Duplex w/Shutters
	SP SC/APC Simplex w/Shutters
	ST ST

Connector (Trunk Side)	Polarity (Trunk)
MM MPO-12 (m)	A Type-A
MF MPO-12 (f)	1 Type-A ALT.*

Adapter Color
K Beige
N Black
A Aqua
E Erika V.
B Blue
G Green

Examples:

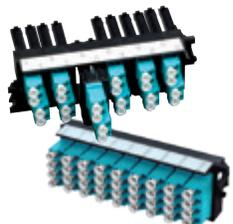
FC3H18DMF - FX UHD Cassette, 18-Port (36-fiber) LC Duplex to 3-Port MPO-12(female), Polarity Type-A for OM3 fiber with Aqua Adapters

FC4U12DMF - FX Ultra Cassette with 1" Pull-Out, 12-Port (24-fiber) LC Duplex to 2-Port MPO-12(female), Polarity Type-A for OM4 fiber with Erika Violet Adapters

FCSU06SQMF - FX Ultra Cassette with 1" Pull-Out, 3-Port (6-fiber) SC/APC Duplex with Shutters to 1-Port MPO-12/APC(female), Polarity Type-A for OS2 fiber with Green Adapters

*Please see the Belden Fiber Optics catalog page 12 for an explanation of using Type-A-Alternate Cassettes.

FX Ultra and UHD Field-Terminated Frames



Fixed Letter Series

FF

1. Choose Fiber Type

3

2. Choose Product Family

H

3. Choose Port Count

18

4. Choose Connector for Patch Side

LD

5. Choose Adapter Color

A

Fiber Type	Product Family
1 OM1	H FX UHD
3 OM3	U FX Ultra (1" Pull)
4 OM4	
S OS2	

Port Count (Patch Side)	Connector (Patch Side)
03	LD LC Duplex
06	LA LC/APC Duplex
12	LS LC Duplex w/Shutters
18	LQ LC/APC Duplex w/Shutters
	SD SC Duplex
	SC SC Simplex
	SA SC/APC Duplex
	SB SC/APC Simplex
	SS SC Duplex w/Shutters
	SR SC Simplex w/Shutters
	SQ SC/APC Duplex w/Shutters
	SP SC/APC Simplex w/Shutters
	ST ST

Port Count (Patch Side)	Connector (Patch Side)
03	LD LC Duplex
06	LA LC/APC Duplex
12	LS LC Duplex w/Shutters
18	LQ LC/APC Duplex w/Shutters
	SD SC Duplex
	SC SC Simplex
	SA SC/APC Duplex
	SB SC/APC Simplex
	SS SC Duplex w/Shutters
	SR SC Simplex w/Shutters
	SQ SC/APC Duplex w/Shutters
	SP SC/APC Simplex w/Shutters
	ST ST
	MP MPO Up/Down
	MR MPO Up/Up

Adapter Color
K Beige
N Black
A Aqua
E Erika V.
B Blue
G Green

Examples:

FF4H18MP - FX UHD Frame, 18-Port MPO Type-B (Key-Up/Key-Down) Erika Violet Adapters for OM4 fiber

FFSU12LD - FX Ultra Frame with 1" Pull-Out, 12-Port (24-fiber) LC Duplex Blue Adapters for OS2 fiber

FFSU12SB - FX Ultra Frame with 1" Pull-Out, 12-Port (12-fiber) SC/APC Simplex Green Adapters for Singlemode fiber

FX Ultra KeyConnect Frames



Description	Belden Part Number
FX UHD KeyConnect Frame, 6-Port	FFZH06KC
FX UHD KeyConnect Frame, 8-Port	FFZH08KC
1 x LC Duplex KeyConnect Adapter, Multimode, OM1, Beige	AX102417
1 x LC Duplex KeyConnect Adapter, Multimode, OM3, Aqua	AX104939
1 x LC Duplex KeyConnect Adapter, Singlemode, OS2, Blue	AX102421
Copper	Blue Black
1 x 10GX KeyConnect Modular Jack, CAT6A	AX104156 AX102283

FX Accessories



Description	Belden Part Number
FX UHD Blank Plate	FFZH00BB
144-Splice Accessory Kit (Shrink Tubes and Wire Markers)	AX104705
FX Ultra Color-Coded Icon Kit	AX104572
FX UHD Patch Cord Release Tool	AX104685

Refer to the Belden Fiber Systems and Copper Systems Catalog for information on compatible components.



GLOBAL LOCATIONS

For worldwide Sales and Technical Support, visit: www.belden.com



UNITED STATES

Division Headquarters

401 Pennsylvania Parkway, #200
Indianapolis, IN
USA
Phone: (1)-317-818-6300
Inside Sales: 800-235-3361
Fax: (1)-317-818-6382
info@belden.com

CANADA

National Business Center

2280 Alfred-Nobel Boulevard
St-Laurent, Quebec
Canada
Phone: 514-822-2345
Fax: 514-822-7979
info@belden.com

BRAZIL

Regional Office

Rua Surubim, 577 - 4o andar
São Paulo, SP
Brazil
Phone: 5511-4097-2555
Fax: 5511-4097-2545
vendas@belden.com.br