BELDEN

DCX System

Optical Distribution Frame

Emerging Technology Increases Fiber Connections

New technology like 5G and IoT, IP migration, the move to 4K content and the shift from 40G to 100G Ethernet and emerging 400G technologies are changing the landscape in data centers, broadcast environments and entertainment venues.

More fiber connections are needed to handle these unavoidable demands. To ensure uptime and efficient operation and maintenance, there's also an increasing need to effectively manage this growing number of fiber connections.

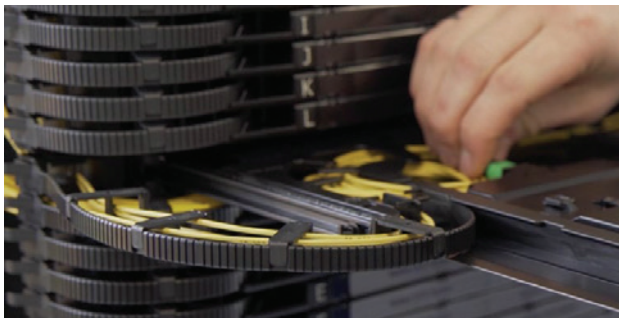
DCX Optical Distribution Frame

Handle high amounts of fiber connections and add density to fiber without compromising on ease of use with the new DCX Optical Distribution Frame. It optimizes the ROI of your fiber infrastructure, offering lower total cost of ownership in terms of capital and operating expenses.

Highest per-square-foot fiber density while maximizing signal integrity and usability

What makes the **DCX** System Innovative?

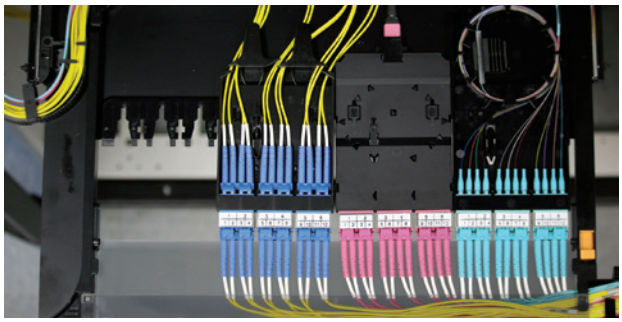
Highest fiber termination density available in a small footprint, with 4,608 terminations per cabinet



Maximum signal integrity through bend radius control for incoming and outgoing cables

Simple patch cord access via pull-out trays and clearance around connector

Futureproof functionality, supporting migration from Base-12 to Base-8, Base 16 and Base-24 without infrastructure changes



Flexibility of termination methods, including MPO trunk cables, multi-fiber trunk cables with LC connectors, fusion splicing with pigtails or splice-on connectors

Benefits

- Cable management accessories control bend radius of fiber cables and patch cords to protect signal integrity
- Place against a wall or in back-to-back arrangements to minimize use of floor space
- Simplify BOMs and save time during deployment with fully configured cabinets

Features

- Simple, easy-to-install accessories to dress incoming cables and patch cords
- Seismic frame made of 14 gauge steel meets Telcordia GR-63-CORE Zone 4 requirements
- Modular cabinets feature configurable item numbers

DCX Cabinets

DCX Cabinets are fully configurable, front-access cabinets that serve as the main building block for a large fiber cross connect or as a high-density fiber interconnect. They protect fiber connections with a lockable front door and side panels that can be unclipped from the inside. Assemble side by side and back to back for scalability.

DCX Cabinet Components and Accessories

Order as a basic cabinet frame and dress on-site with doors, sides and cable management accessories. Pre-configured cabinets can be upgraded with additional cable entry brackets, cable distribution brackets and patch cord spools as fiber terminations increase. A patch cord management storage module can be inserted between side-by-side assemblies to manage patch cords that run to other cabinets. In-cabinet channel kits can create horizontal patch cord management channels.

Unlimited Scalability with modular frames that act as building blocks

DCX Housings

DCX Housings are available in left-to-right and right-to-left cable flow configurations for optimized management. The housings have a front-access design with 12 trays that pull out for easy access to cables connected to the back of adapter frames and cassettes. Modular cassettes can be mixed on the same tray (Base-8, Base-12, Base-16 or Base-24), enabling easy and cost-effective migration and preventing density loss.

Benefits

- Enhance signal integrity due to built-in cable bend radius control and strain relief
- Simplify management with full access around each connection for easy insertion and removal
- Reduce human error and connection issues with labeling space at the front and inside the patch cord cover for easy port reference

Features

- 4U housing with front-access design and capacity of 576 fiber terminations (using LC connectors)
- Built-in cable and patch cord management on every tray
- Articulated cable channels provide protection and bend radius control for fiber cables entering housings

Benefits

- Optimize system density regardless of the termination method
- Lower network downtime for maintenance thanks to MPO cassette modularity; only 12 fibers are affected (as opposed to 24 or 36 fibers in other solutions)
- Flippable pre-terminated cassettes provide easy fiber polarity management and simplify system planning (only one part number)

Features

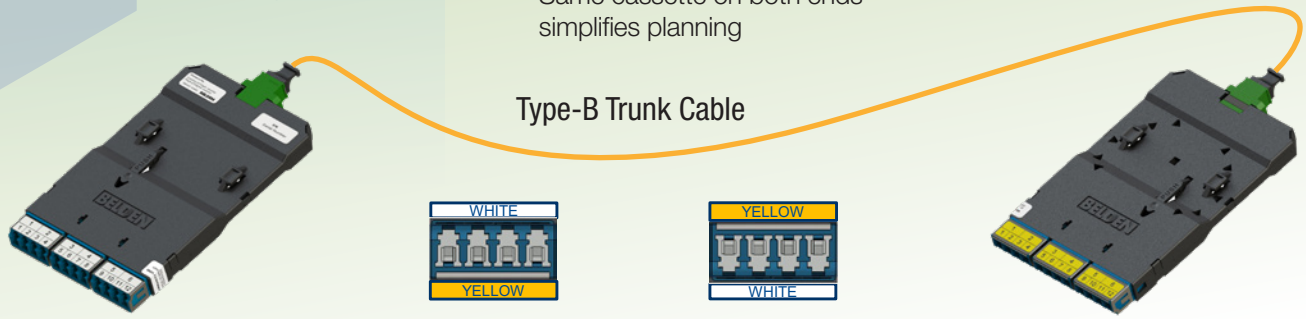
- Adapter frame available with LC, SC or MPO connector interface
- Pre-terminated cassettes available in four-port (Base-8) and six-port (Base-12)
- Splice cassettes available empty or preloaded with pigtails or splice holder and protectors

DCX Adapter Frames and Cassettes

DCX adapter frames and cassettes have a modular, compact design that allows for assembly of four (Base-12) or six (Base-8) cassettes per housing tray.

Easy and Efficient Fiber Polarity Management

- Symmetrical cassette design maintains sequencial port numbering (flip it over)
- Same cassette on both ends simplifies planning



DCXS11-22121-22 - DCX Cabinet, Left-Right

DCX Cabinets

Description	Maximum Capacity		Belden Part Number
	DCX Housings	LC Duplex Ports (fibers)	
DCX Cabinet Seismic 84x36x15, Left-Right, White, No Top Panel, No Bottom Panel, No Doors, No Side Panel, No Rear Panel, No Cable Distribution Bracket, No Spools	8	2304 (4608)	**DCXS11-00000-00**
DCX Cabinet Seismic 84x36x15, Right-Left, White, No Top Panel, No Bottom Panel, No Doors, No Side Panel, No Rear Panel, No Cable Distribution Bracket, No Spools	8	2304 (4608)	**DCXS21-00000-00**
DCX Cabinet Seismic 84x36x15, Left-Right, White, Brush + 4 Top Cable Entry Brackets, Brush + 4 Bottom Cable Entry Brackets, Bifold Plexi Door, Solid Side Panel, Full Rear Panel, 8 Cable Distribution Brackets, 8 Patch Cord Spools	8	2304 (4608)	**DCXS11-22121-22**
DCX Cabinet Seismic 84x36x15, Right-Left, White, Brush + 4 Top Cable Entry Brackets, Brush + 4 Bottom Cable Entry Brackets, Bifold Plexi Door, Solid Side Panel, Full Rear Panel, 8 Cable Distribution Brackets, 8 Patch Cord Spools	8	2304 (4608)	**DCXS21-22121-22**
DCX Cabinet Seismic 84x36x15, Left-Right, White, Brush + 4 Top Cable Entry Brackets, Brush + 4 Bottom Cable Entry Brackets, Bifold Plexi Door, No Side Panel, Full Rear Panel, 8 Cable Distribution Brackets, 8 Patch Cord Spools	8	2304 (4608)	**DCXS11-22101-22**
DCX Cabinet Seismic 84x36x15, Right-Left, White, Brush + 4 Top Cable Entry Brackets, Brush + 4 Bottom Cable Entry Brackets, Bifold Plexi Door, No Side Panel, Full Rear Panel, 8 Cable Distribution Brackets, 8 Patch Cord Spools	8	2304 (4608)	**DCXS21-22101-22**

DCX Cabinets Accessories

Description	Belden Part Number
DCX Cable Entry Bracket - Top (4 Brackets for 24 cables) White	**DCX-TOPE-KIT03W**
DCX Cable Entry Bracket - Bottom (4 Brackets for 24 cables) White	**DCX-BOTE-KIT02W**
DCX Cable Distribution Attachment Kit (1 Bracket w/2 Plastic Holders up to 24 LPM Transitions Per Holder) Black	**DCX-CABV-KIT01B**
DCX Patch Cord Spool Kit (1 Fixed Spool + Management Bar) Black	**DCX-SPOO-KIT01B**
DCX Horizontal In-Cabinet Channel Kit Left-Right (1 Patch Cord Tray) White	**DCX-HINC-KIT01W**
DCX Horizontal In-Cabinet Channel Kit Right-Left (1 Patch Cord Tray) White	**DCX-HINC-KIT02W**
DCX Patch Cord Storage Module White W/Black Door w/ 8 Spools	**DCX-PCST-MOD01W**
DCX Cabinet Ganging Kit for Line Up (Side-by-Side or Back-to-Back)	**DCX-GANG-KIT01**

DCX Cabinets

Building a *Smart*Part Number

DCX	1. Choose Type	2. Choose Cable Flow	3. Choose Color		4. Choose Top Panel	5. Choose Bottom Panel	6. Choose Doors	7. Choose Side Panel	8. Choose Rear Panel		9. Choose Cable Attachment	10. Choose Spools
DCX	S	1	1	-	2	2	1	2	1	-	2	2

Type	
S	Seismic 84x36x15

Cable Flow	
1	Left-Right
2	Right-Left

Color*	
1	White
2	Black

Top Panel	
0	None
1	Blank
2	Brush + 4 Top Cable Entry Brackets
3	Brush + 8 Top Cable Entry Brackets

Bottom Panel	
0	None
1	Blank
2	Brush + 4 Top Cable Entry Brackets
3	Brush + 8 Top Cable Entry Brackets

Doors**	
0	None
1	Bifold-Plexi
2	Bifold-Perf
3	Bifold-Solid

Side Panel	
0	None
1	Plexi
2	Solid

Rear Panel	
0	None
1	Full
2	Cable Management

Cable Attachment	
0	None
1	4 Cable Distribution Brackets
2	8 Cable Distribution Brackets

Side Panel	
0	None
1	4 Spools
2	8 Spools

*By default top, bottom, side, rear panels are powder coated to match frame color
**By default door, cable distribution brackets and spool metal supports are black medium texture

Note: Standard white enclosures will have black doors/standard black enclosures will have black doors
Consult factory for special color options and/or enclosure configurations

DCX Housings

Description	Number of Modules		Total LC Duplex Ports	Belden Part Number
	Base-12	Base-8		
DCX Housing 4U, Left-Right Cable Flow, with 12 Trays, Trunk & Patch Cord Management	48	72	288	**DCX-04FM-LR**
DCX Housing 4U, Right-Left Cable Flow, with 12 Trays, Trunk & Patch Cord Management	48	72	288	**DCX-04FM-RL**

DCX-04FM-LR and DCX-04FM-RL

DCX Adapter Frames

Description	Belden Part Number			
Patch Ports (fibers)	OM3 Aqua Adapters	OM4 Erika Violet Adapters	SM Blue Adapters	SM/APC Green Adapters
MPO Type-A (Key-Up/Key-Down)				
4 (48)	**FF3D04MP**	**FF4D04MP**	—	**FFSD04MP**
6 (72)	**FF3D06MP**	**FF4D06MP**	—	**FFSD06MP**
LC Duplex				
4 (8)	**FF3D04LD**	**FF4D04LD**	**FFSD04LD**	**FFSD04LA**
6 (12)	**FF3D06LD**	**FF4D06LD**	**FFSD06LD**	**FFSD06LA**
SC Duplex				
3 (6)	**FF3D03SD**	**FF4D03SD**	**FFSD03SD**	**FFSD03SA**

DCX Adapter Frames

Building a *Smart*Part Number

FF | 1. Choose Fiber Type: 3 | 2. Choose Product Family: D | 3. Choose Port Count (Patch Side): 04 | 4. Choose Connector (Patch Side): LD

Fiber Type	
3	OM3
4	OM4
S	OS2

Product Family	
1	DCX

Port Count (Patch Side)	
04	4-port
06	6-port

Connector (Patch Side)	
LD	LC Duplex
LA	LC/APC Duplex
SD	SC Duplex
SA	SC/APC Duplex
MP	MPO Up/Down

FF4D04MP and FFSD06LD

FCSD06LDMF and FC4D04LD4F

DCX Pre-Terminated Cassettes

Description	Belden Part Number			
Patch Ports (fibers)	OM3 Aqua Adapters	OM4 Erika Violet Adapters	SM Blue Adapters	SM/APC Green Adapters
LC Duplex to MPO-12 (12f) Female Type-A (Base-12)				
6 (12)	FC3D06LDMF	FC4D06LDMF	FCSD06LDMF	FCSD06LAMF
LC Duplex to MPO-12 (8f) Female SR4 (Base-8)				
4 (8)	FC3D04LD4F	FC4D04LD4F	FCSD04LD4F	FCSD04LA4F

DCX Pre-Terminated Cassettes

Building a *Smart*Part Number

FC	1. Choose Fiber Type	2. Choose Product Family	3. Choose Port Count (Patch Side)	4. Choose Connector (Patch Side)	5. Choose Connector (Trunk Side)
FC	4	D	06	LD	MF

Fiber Type	
3	OM3
4	OM4
S	OS2

Product Family	
D	DCX

Port Count (Patch Side)	
04	4-port
06	6-port

Connector (Patch Side)	
LD	LC Duplex
LA	LC/APC Duplex
SD	SC Duplex
SA	SC/APC Duplex

Connector (Trunk Side)	
MF	MPO-12 (12f) Female
4F	MPO-12 (8f) Female

DCX Splice Cassettes

Description	Belden Part Number			
Patch Ports (fibers)	OM3 Aqua Adapters	OM4 Erika Violet Adapters	SM Blue Adapters	SM/APC Green Adapters
LC Duplex - Includes 250 µm pigtails, splice tray and heat shrink splice protector sleeves				
6 (12)	FC3D06LDFP	FC4D06LDFP	FCSD06LDFP	FCSD06LAFP
LC Duplex - Empty (pigtails, trays, protector sleeves sold separately)				
6 (12)	FC3D06LDFS	FC4D06LDFS	FCSD06LDFS	FCSD06LAFS

DCX Splice Cassettes

Building a *Smart*Part Number

FC	1. Choose Fiber Type	2. Choose Product Family	3. Choose Port Count (Patch Side)	4. Choose Connector (Patch Side)	5. Choose ????
FC	S	D	06	LA	FP

Fiber Type	
3	OM3
4	OM4
S	OS2

Product Family	
D	DCX

Port Count (Patch Side)	
06	6-port

Connector (Patch Side)	
LD	LC Duplex
LA	LC/APC Duplex
SD	SC Duplex
SA	SC/APC Duplex

Configuration	
FP	Preloaded
FS	Empty

Fiber*Express* MPO Trunks (Base-12, Base-8)

Building a *Smart*Part Number

1. Choose Fiber Type	2. Choose Connector	3. Choose Gender	4. Choose Polarity	5. Choose Connector Count	6. Choose Length	7. Choose Fire Rating	8. Choose Cable Construct	9. Choose Fan Out	10. Choose Jacket Color
FM	4	M	M	B	4	010M	P	U	E	E

Type	
3	OM3
4	OM4
S	OS2

Connectors*	
Base-12	
M	MPO-12 (12f)
Base-8	
4	MPO-12 (8f)

Connector Gender	
M	M
P	P

Polarity (outside)	
A	Type-A (Straight Polarity)
B	Type-B (Reversed Polarity)

Connector Count	
Base-12	
1	12 Fibers
2	24 Fibers
4	48 Fibers
8	96 Fibers
D	144 Fibers
Base-8	
1	8 Fibers
3	24 Fibers
6	48 Fibers
D	96 Fibers

Length (m)
005M to 500M M Meters *use M as decimal

Fire Rating	
P	Plenum
I	I/O Plenum
A	Plenum Armored (AIA)

Cable Construct	
U	µMini-D
M	Mini-D

Fan Out	
E	1.0 m x In-Line

Jacket Color	
O	Orange
N	Black
Y	Yellow
A	Aqua
E	Erika Violet

*If selecting Base-12 Connectors, choose from Base-12 Connector Count.
If selecting Base-8 Connectors, choose from Base-8 Connector Count.

Examples:

FM3MMB4050MPUEA - FX MPO Trunk, OM3, MPO-12 (Male to Male), Type-B, 4 MPO (48 Fibers), 50 m, OFNP, Mini-distribution (2.0 mm Sub-units), Fan-out: 1.0 m x In-line, Aqua Jacket

FM44MB4050MPUEE - FX MPO Trunk, OM4, MPO-12 Base-8 (Male to Male), Type-B, 4 MPO (32 Fibers), 50 m, OFNP, Mini-distribution (2.0 mm Sub-units), Fan-out: 1.0 m x In-line, Erika Violet Jacket

FMSMMB8050MPUEY - FX MPO Trunk, OS2, MPO-12 (Male to Male), Type-B, 8 MPO (96 Fibers), 50 m, OFNP, Mini-distribution (2.0 mm Sub-units), Fan-out: 1.0 m x In-line, Yellow Jacket

FM44MBD050MPUEY - FX MPO Trunk, OM4, MPO-12 Base-8 (Male to Male), Type-B, 12 MPO (96 Fibers), 50 m, OFNP, Mini-distribution (2.0 mm Sub-units), Fan-out: 1.0 m x In-line, Yellow Jacket

Fiber*Express* Multi-Fiber Trunks

Building a *Smart*Part Number

1. Choose Fiber Type	2. Choose Fiber Count	3. Choose Connector 1	4. Choose Cable Construction	5. Choose Connector 2	6. Choose Cable Construction	7. Choose Fire Rating	8. Choose Length
A	4	48	LD	B	LD	4	P	030M

Type	
3	OM3
4	OM4
S	OS2

Fiber Count	
08	8 Fibers
12	12 Fibers
24	24 Fibers
48	48 Fibers
96	96 Fibers
144	144 Fibers

Connector 1	
LD	LC Duplex
LC	LC Simplex
LA	LC/APC Duplex
LB	LC/APC Simplex
SD	SC Duplex
SC	SC Simplex
SA	SC/APC Duplex
SB	SC/APC Simplex

Cable Construction 1	
7	Jacketed 1.6 mm x 1.0 m x In-Line

Connector 2	
LD	LC Duplex
LC	LC Simplex
LA	LC/APC Duplex
LB	LC/APC Simplex
SD	SC Duplex
SC	SC Simplex
SA	SC/APC Duplex
SB	SC/APC Simplex

Cable Construction 2	
7	Jacketed 1.6 mm x 1.0 m x In-Line

Fire Rating	
P	Plenum
I	I/O Plenum
A	Plenum Armored (AIA)

Length (m)
005M to 500M M Meters *use M as decimal

Examples:

A448LD7LD7P050M - FX Multi-Fiber Trunk, OM4, 48 Fibers, LC Duplex (Jacketed 1.6 mm x 1.0 m) - LC Duplex (Jacketed 1.6 mm x 1.0 m), OFNP, 50 m, Erika Violet Jacket

A396LDGLD7P050M - FX Multi-Fiber Trunk, OM3, 96 Fibers, LC Duplex (Jacketed x 1.5 m x In-Line) - LC Duplex (Jacketed 1.6 mm x 1.0 m), OFNP, 50 m, Aqua Jacket

AS96LDGMMFP050M - FX Multi-Fiber Trunk, OS2, 96 Fibers, LC Duplex (Jacketed x 1.5 m x In-Line) - MPO-12 (M) (Jacketed x 1.0 m x In-Line), OFNP, 50 m, Yellow Jacket

Fiber*Express* Patch Cords

Building a *Smart*Part Number

FX Patch Cord	1. Choose Fiber Type	2. Choose Connector 1	3. Choose Connector 2	4. Choose Length*	5. Choose Fire Rating	6. Choose Cable Construction	7. Choose Polarity	8. Choose Jacket Color
FP	3	LD	LD	03M5	R	1	X	A

Fiber Type	
3	OM3
4	OM4
S	OS2

Connector 1	
LD	LC Duplex
LC	LC Simplex
LA	LC/APC Duplex
LB	LC/APC Simplex
SD	SC Duplex
SC	SC Simplex
SA	SC/APC Duplex
SB	SC/APC Simplex
4F	MPO-12 (F) Base-8
MF	MPO-12 (F) Base-12

Connector 2	
LD	LC Duplex
LC	LC Simplex
LA	LC/APC Duplex
LB	LC/APC Simplex
SD	SC Duplex
SC	SC Simplex
SA	SC/APC Duplex
SB	SC/APC Simplex
4F	MPO-12 (F) Base-8
MF	MPO-12 (F) Base-12

Length*
003M to 100M M Meters use M as decimal

Fire Rating	
R	Riser
P	Plenum

Cable Construction	
9	Simplex Cord 1.6 mm
1	Duplex Zipcord 1.6 mm
6	Round 2.0 mm

Polarity	
X	A/B (Cross)
S	A/A (Straight)
A	Type-A
B	Type-B

Jacket Color	
Y	Yellow
A	Aqua
E	Erika V.

Examples:

FPSLDLD03M5R1XY - FX Patch Cord, OS2, LC Duplex - LC Duplex, 3.5 m, OFNR, Duplex Zip 1.6 mm, A-To-B, Yellow Jacket

FPSLBLB03M5R9SY - FX Patch Cord, OS2, LC Simplex/APC - LC Simplex/APC, 3.5 m, OFNR, Simplex 1.6 mm, A-To-A, Yellow Jacket

FP44F4F002MP6BE - FX Patch Cord, OM4, MPO-12 Base-8 (F) - MPO-12 Base-8 (F), 2 m, OFNP, Round 2.0 mm, Type-B, Erika Violet Jacket

FP3LDLD03M5R1XA - FX Patch Cord, OM3, LC Duplex - LC Duplex, 3.5 m, OFNR, Duplex Zip 1.6 mm, A-To-B, Aqua Jacket

DCX

Highest per-square-foot fiber density while maximizing signal integrity and usability

Find out more at **belden.com/dcx**

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