



PANDUIT FlexCore Optical Distribution Frame Installation Guide

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PANDUIT FlexCore Optical Distribution Frame



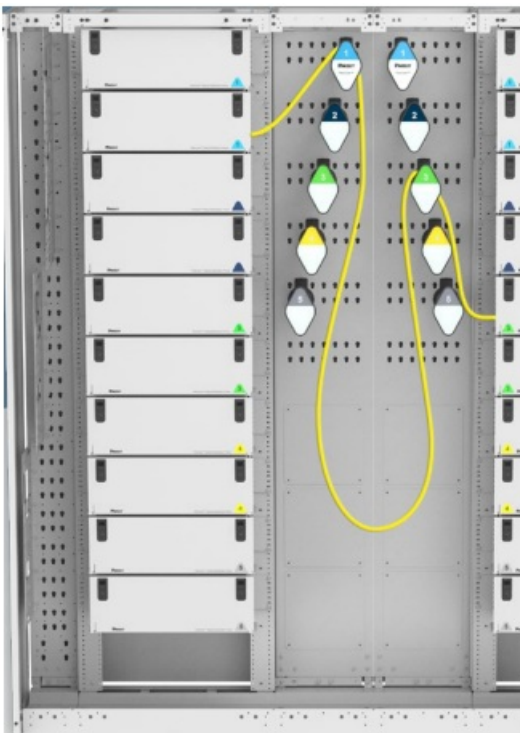
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FlexCore™ at a Glance

Every connection counts

With the use of cutting-edge technologies in a number of environments, network dependency has transitioned from the era of ‘mission’ to ‘life’ critical from access points back to the data center. Simultaneously, high speed data transport accelerated from 1G to 400G and is expected to quadruple in the near future.



What is at your core?

Optical distribution frames (ODF's) are an all-important network element at the heart of this fiber network. Representing <5% of a typical IT project investment, high density, performance, and quality are pivotal attributes for an ODF ensuring business continuity 24/7/365.

Panduit FlexCore™ Optical Distribution Frame solution offers the ultimate in flexibility, manageability, scalability and security.

- Highly intuitive cable routing paths remove guess work and prevent 'rip and replace' costs
- Innovative cable management and lockable vertical cable manager door eliminates circuit risk and downtime
- Data center floor space can be reduced by 50%†
- Moves, adds, and changes up to 30% faster
- Multiple form factor (width) cassettes optimize rack space across wider applications
- Patch cords consolidated to a single length – freeing up capital locked in maintaining inventory
- Multi-layer security with lock capability available at both 4RU enclosure and ODF doors

Total front access cabling principles and modular building blocks of 150mm, 300mm and 600mm (width of frame units) that delivers scalability with outstanding system flexibility.

†6 double FlexCore™ frames in a back-to-back arrangement vs HD Flex™ enclosure with 4 post rack and vertical cable management

FlexCore™ Common Frame Arrangements

• **FIGURE 1A**

Single Cross Connect Frame, recommended patch cord length 4m



• **FIGURE 1B**

Double Cross Connect Frame, with end panels, recommended patch cord length 4m



- **FIGURE 2**

Cross Connect, four frame line-up, with end panels and overlength storage (300mm VCM). Recommended patch cord length between two double frames is 9m



- **FIGURE 3**

Double Cross Connect Back-to-Back, fully enclosed. Recommended patch cord length 4m



- **FIGURE 4:**

Double Cross Connect Frame (Compact) Recommended LC Uniboot patch cord length 4m



- **FIGURE 5**

Interconnect or Splice Through frame with end panels



FRAME

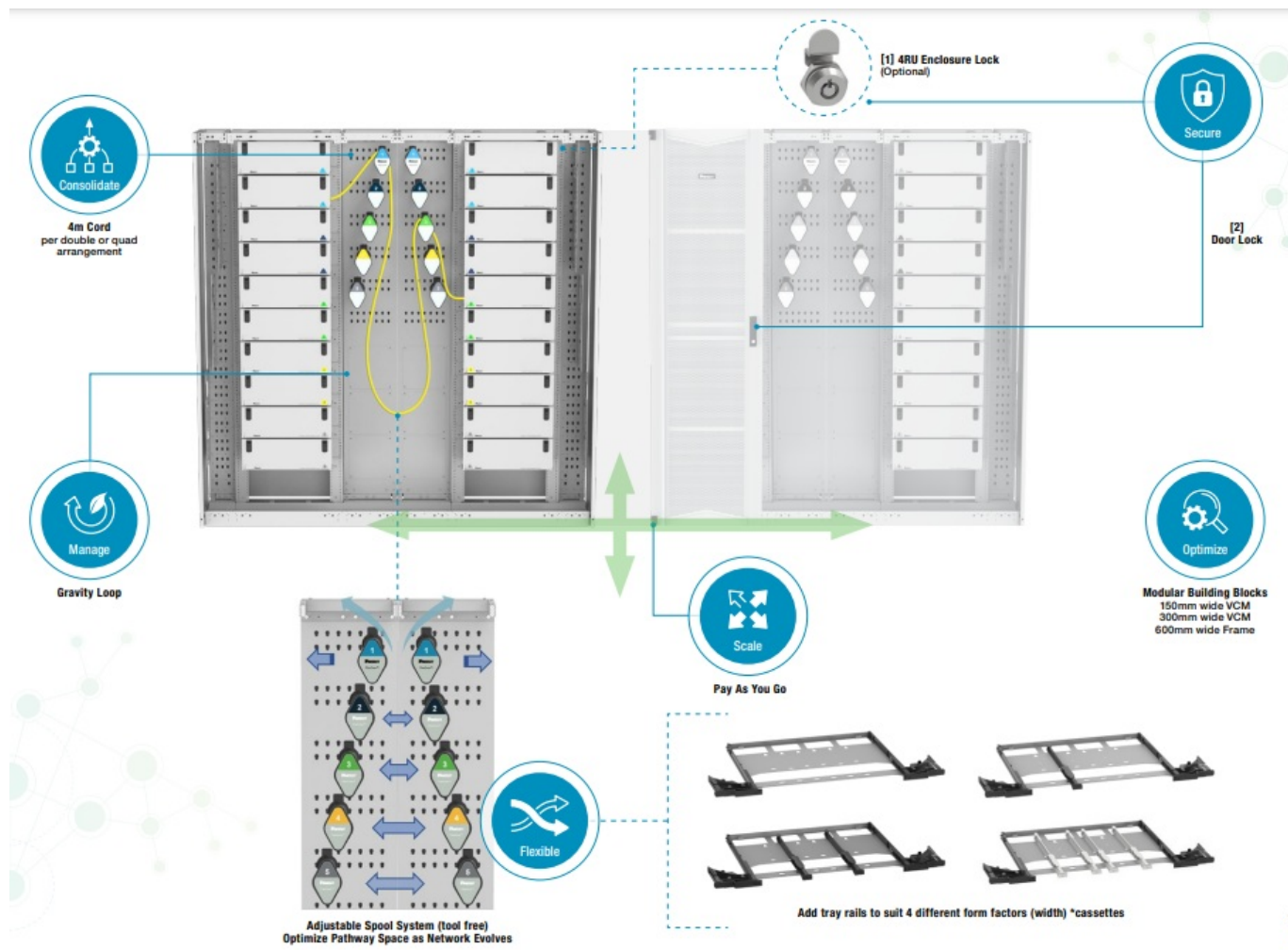
Robust ODF frame with configuration options that meet Telcordia Zone 3 seismic requirements.

ENCLOSURE

Each Frame holds up to eleven 4RUenclosures with twelve sliding trays that can accept four different cassettes types. Available with optional locks. Patent US 10,215,944

CASSETTES

Factory or field terminated. MPO-LC, LC-Tethered, LC-Splice and Splice Through (cable-cable)



FlexCore™ Ordering Guide

STEP 1: Select a Frame

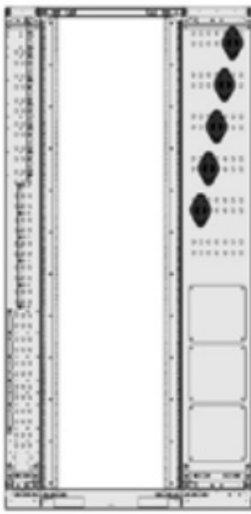
Description (short)	QTY	Part Number*	Maximum Capacity**	Dimensions (m m)††
Frame 600mm – GY VCM 150mm – GY VCM 300mm – GY Spool Kit (x6)	1† 1† 1† 1†	FDIFF45GY FDFVCM1545GY FDFVCM 3045GY FDUSP6	3168F per single frame 132 × 24F (LC) Cassettes 11 × 4RU Enclosures 12 Trays per 4RU Enclosure	Height – 2133 (2 159-2200 with leveling feet) Width – 1050 Depth – 300
Frame 600mm – GY VCM 150mm – GY VCM 300mm – GY Spool Kit (x6) <i>Duplex LC patch cords must be <2mm outside diameter unitary cable (Uniboot patch cord)</i>	2 2 1 2	FDIFF45GY FDFVCM1545 GY FDFVCM3045GY FDU SP6	6336F per double frame 132 × 24F (LC) Cassettes 11 × 4RU Enclosures 12 Trays per 4RU Enclosure	Height – 2133 (2 159-2200 with leveling feet) Width – 1800 Depth – 300
Frame 600mm – GY VCM 150mm – GY	1 2	FDIFF45GY FDFVCM1545 GY	6336F Splice only – Ribbon 3168F Splice only – shrink down (single fiber) 3168F Interconnect (LC Cassette) 11 × 4RU Enclosures 12 Trays per 4RU Enclosure	Height – 2133 (2 159-2200 with leveling feet) Width – 900 Depth – 300

Frames are supplied with leveling feet and wall mount bracket. 150mm VCM illustrated is supplied with 4 x cable management plates Refer to design guides for configuration specifics
 VCM can be assembled for top (as illustrated) or bottom cable entry/exit.

††Width and depth stated excludes end panel(s) and door(s)

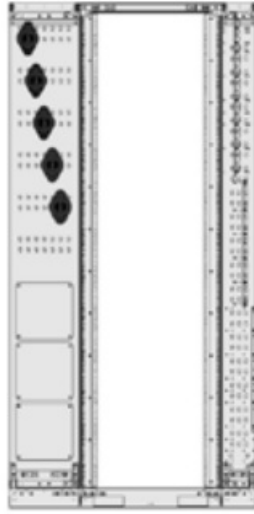
*Change 'GY to 'BL in part number for black.

†for a 2100mm wide double cross connect frame (where both LH + RH version is needed) double quantity shown
 **maximum fiber capacity (stated) applies to single, double and quad (quad = double frame placed back-to-back) frame arrangements in combination with 24F LC cassettes. If using a line-up of >2 frames side by side the maximum number of 4RU enclosure is 10 off (2880F per frame) to allow bottom patch cord pass-through (trough) to be used.



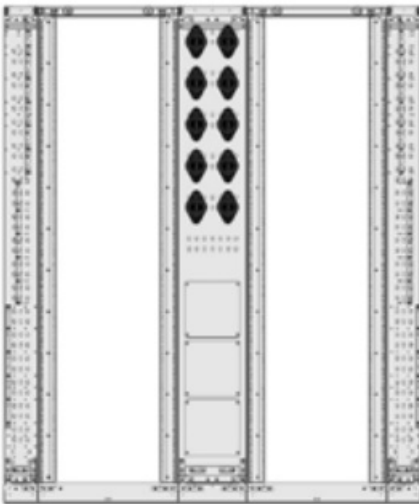
*Single Frame
Cross Connect
(LH)*

OR

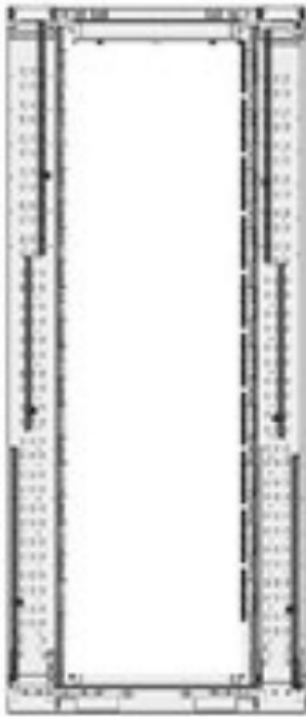


**Assemble as
opposite hand
(RH)*

Double Frame (Compact) Cross Connect



Splice Through **OR** Interconnect



STEP 2: Select a Surround

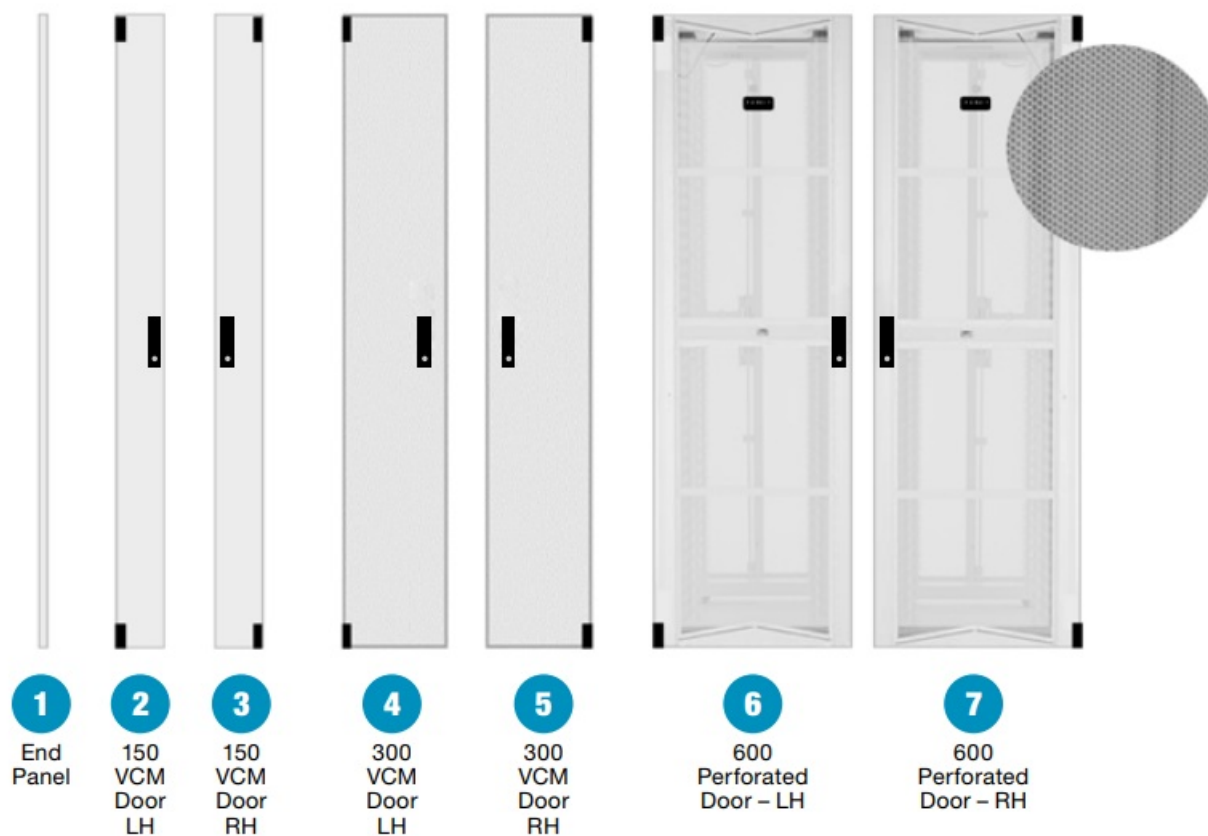
LH – Left Hinged

RH – Right Hinged

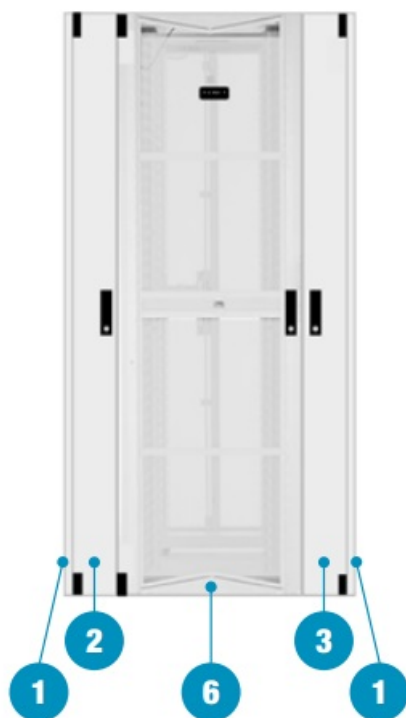
Ref.	Part Number**	Description (short)
1	FDFEP45GY	*End Panel
2	FDUFD1545SLGY	150mm VCM Door LH
3	FDUFD1545SRGY	150mm VCM Door RH
4	FDUFD3045SLGY	300mm VCM Door LH
5	FDUFD3045SRGY	300mm VCM Door RH
6	FDUFD6045PLGY	600mm Perforated Door LH
7	FDUFD6045PRGY	600mm Perforated Door RH

*for multi rack line up(s) end panel is only required at end of each row

****change 'GY' to 'BL' in part number for black**



- Splice Through or Interconnect



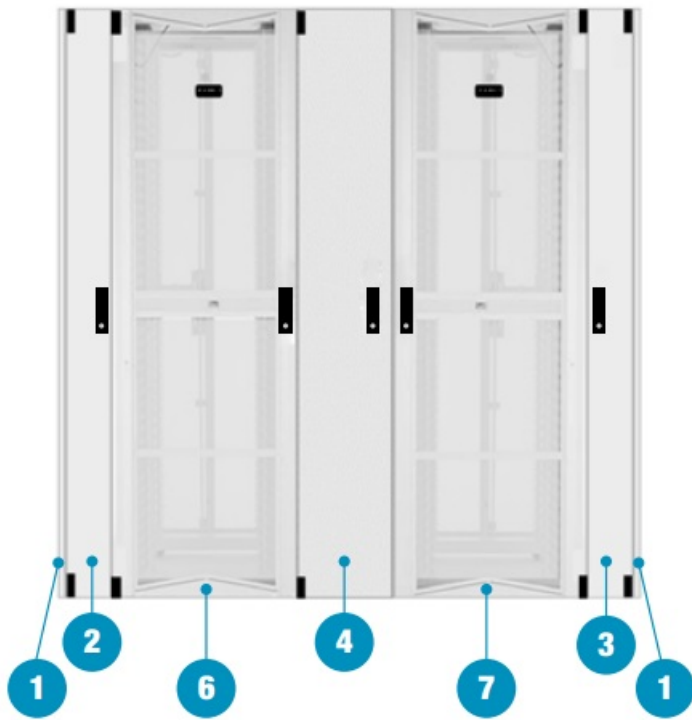
- Single Cross Connect (LH)



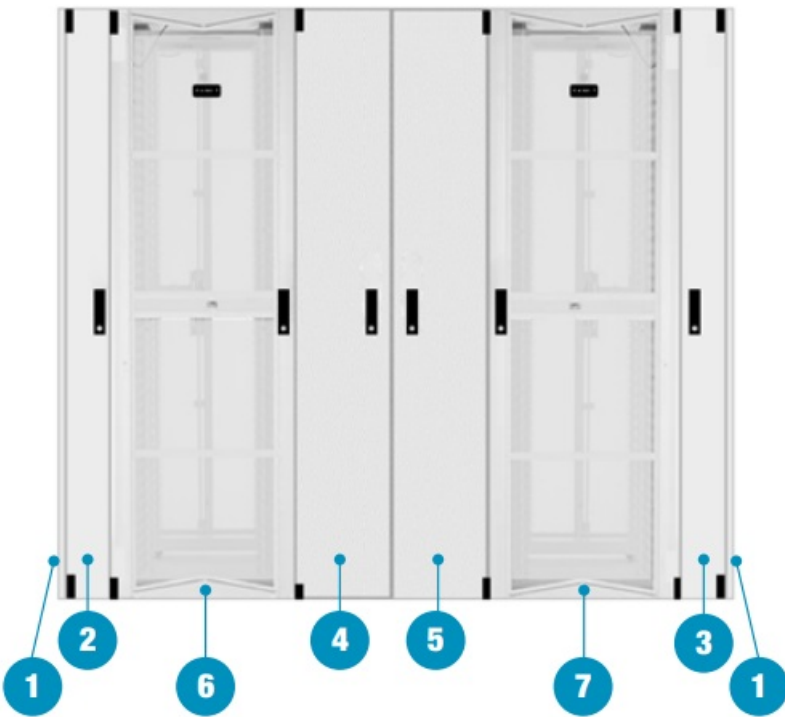
- Double (Compact)



- Double (Compact)



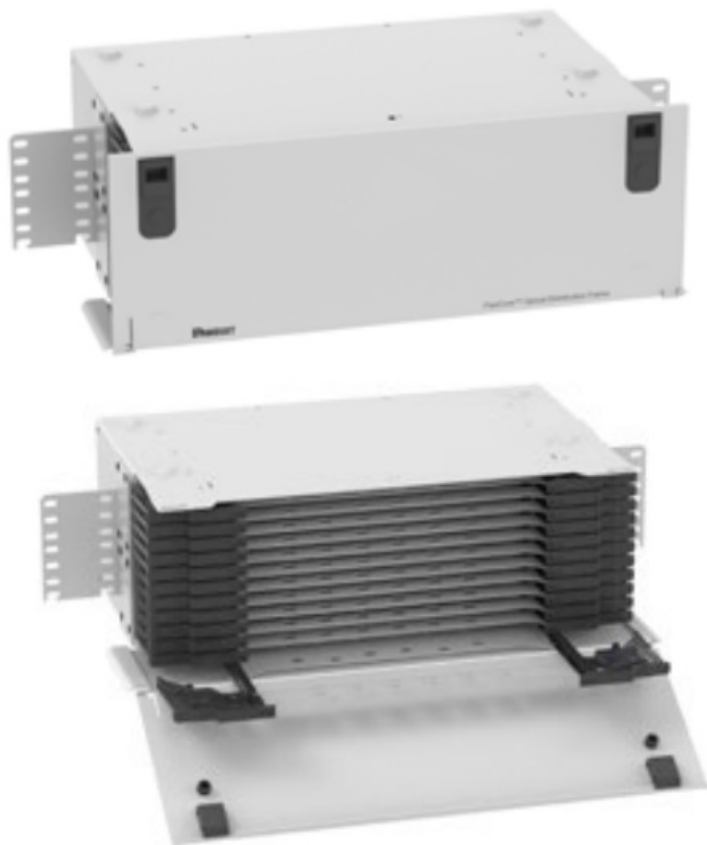
• Double



STEP 3: Select a FlexCore™ Enclosure

Part Number	Description
FDFUE4GY <i>Change 'GY' to 'BL' in part number for black</i>	ODF Front Access Universal Enclosure, 4RU, Gray <i>12 x Slide out trays</i>
FDFELS	Enclosure Locking Kit <i>Standard, Keyed Alike Each it supplied with two locks</i>

- **FDFUE4GY**



- **FDFELS**



- **4 RU Enclosure Assembled with Cassettes**



FlexCore™ Cassettes

FlexCore™ LC Splice Cassettes	
Part Number	Description
FDS9N-24-LA*	24F Front Access Splice Cassette, LC APC. STD IL
FDS9N-24-10*	24F Front Access Splice Cassette, LC UPC. STD IL
FDSZO-12-10*	24F Front Access Splice Cassette, LC OM4. OPT IL
FDSZA-12-10P	24F Front Access Splice Cassette, LC OM4. ULTRA IL
*P for 250mm pigtails, R f or ribbon pigtails	

FDS9N-24-10P



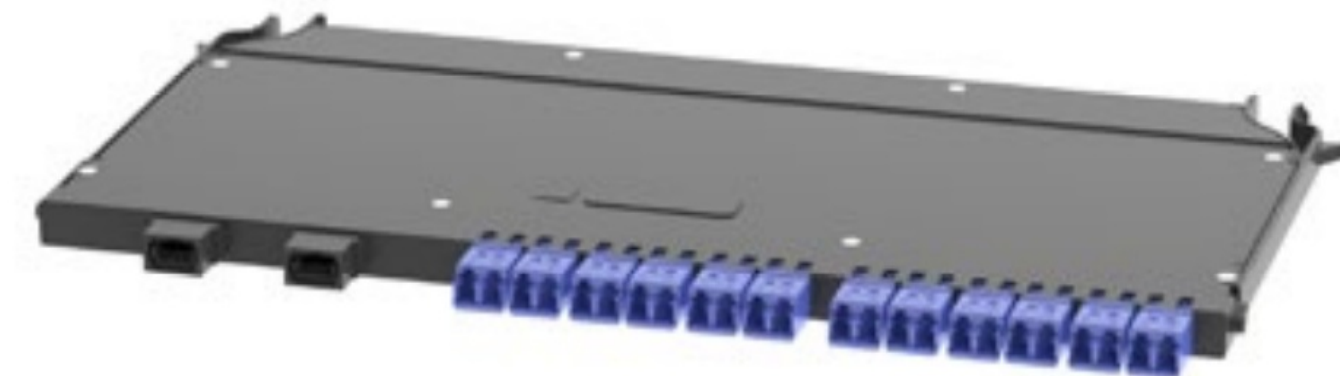
FlexCore™ MPO-LC Cassettes	
Part Number	Description
FDC9N-24-LAASLH	24F OS2 LC APC (Duplex) to 2 x MPO12, Std IL., Method A, Left Hand
FDC9N-24-10ASLH	24F OS2 LC UPC (Duplex) to 2 x MPO12, Std IL., Method A, Left Hand
FDCZO-24-10ASLH	24F OM4 LC (Duplex) to 2 x MPO12, Opt IL., Method A, Left Hand
FDCZA-24-10ASLH	24F OM4 LC (Duplex) to 2 x MPO12, Ultra IL., Method A, Left Hand
FDCSA-24-10ASLH	24F OM4+ LC (Duplex) to 2 x MPO12, Ultra IL., Method A, Left Hand

Change AS to:

AF for Modified Method A (pair flipped)

U for Universal polarity

FDC9N-24-10ASLH



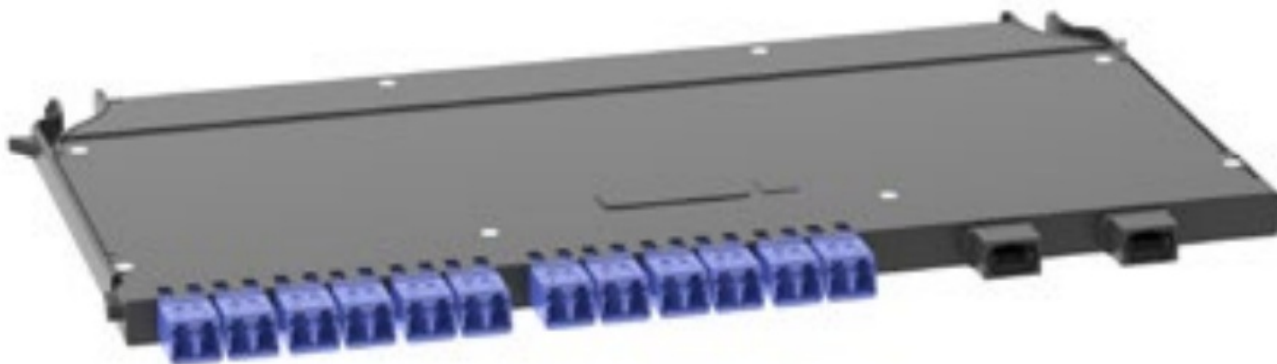
FDC9N-24-LAASRH	24F OS2 LC APC (Duplex) to 2 x MPO12, Std IL., Method A, Right Hand
FDC9N-24-10ASRH	24F OS2 LC UPC (Duplex) to 2 x MPO12, Std IL., Method A, Right Hand
FDCZO-24-10ASRH	24F OM4 LC (Duplex) to 2 x MPO12, Opt IL., Method A, Right Hand
FDCZA-24-10ASRH	24F OM4 LC (Duplex) to 2 x MPO12, Ultra IL., Method A, Right Hand
FDCSA-24-10ASRH	24F OM4+ LC (Duplex) to 2 x MPO12, Ultra IL., Method A, Right Hand

Change AS to:

AF for Modified Method A (pair flipped)

U for Universal polarity

FDC9N-24-10ASRH



FlexCore™ Splice Through (cable-cable) Cassette	
Part Number	Description
FDSN-24	<p>Front Access – Splice Only</p> <p>24F Discrete Splice or 48F Ribbon Splice</p> <p><i>Includes 24 x discrete and 4 x ribbon shrink down splice protectors</i></p>

FDSN-24



PON Cassettes – FlexCore™ Compatible	
Part Number	Description
FHP9N-LA1X02 FHP9N-LA1X04 FHP9N-LA1X08 FHP9N-LA1X16	<p>2 Simplex Output Ports 4 Simplex Output Ports 8 Simplex Output Ports 16 Simplex Output Ports</p>
	<i>HD Flex Splitter Cassettes</i>

FHP9N-LA1X04, FHP9N-LA1X016, -LA1X08



FlexCore™ Tethered Cassette

Tethered LC cassettes enable fast, efficient, and reliable network deployment. The stub on the far end of the cable can be confidently deployed thanks to the Patented cassette-cable strain relief feature, then spliced or connectorized into the required system.



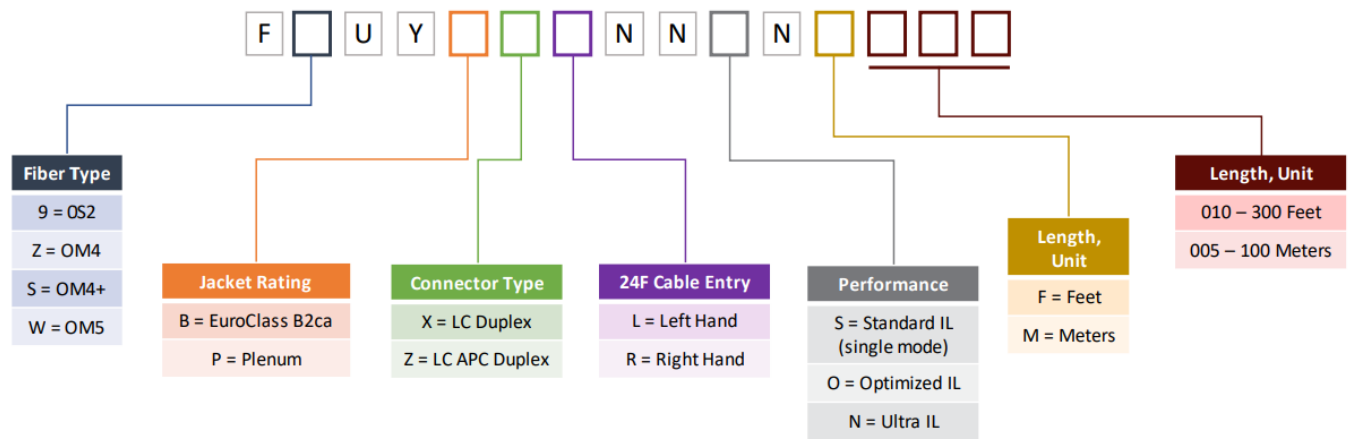
Features:

- Panduit's 24F small diameter indoor cable
- One end connectorized and fully tested
- Patented cable strain relief feature
- Dry cable construction – 24 × 250-micron fibers

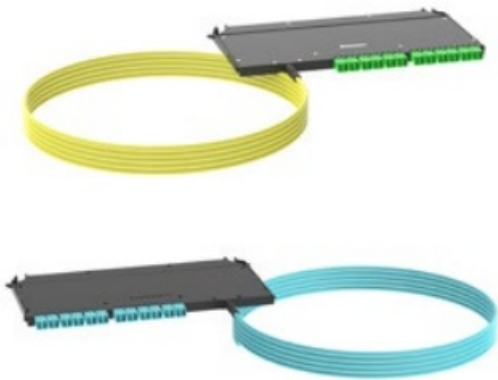
Pre-Configured Lengths:

- 5m to 30m in 5m increments
- 30m to 100m in 10m increments
- 10 Ft. to 100 Ft. in 10-Ft. increments
- 100 Ft. to 300 Ft. in 50m increments

Contact your Panduit sales representative for alternatives not shown



Part Number	Dimensions
F9UYPZLNNSNF100	Single mode 24-fiber Indoor Plenum Tethered LC/APC Cassette, Left-Side 24F Cable Ingress, Standard IL, 100-Ft.
FZUYBXRNNONM010	OM4 24-fiber Indoor EuroClass B2ca, Tethered LC Cassette, Right-Side 24F Cable Ingress, Optimized IL, 30m



FlexCore™ Accessories

FDUSP





Part Number	Description
FDUSP	ODF Spool (Single) <i>1/bag, 10/carton</i>
FDUSP6	ODF Spool – 6-pack with labels <i>Includes corresponding enclosure door labels (not illustrated) for 11 x 4RU enclosures</i>
FDFMX5KITBL	Cable Breakout Box <i>Complete with 12' x 2' (610mm) protection tubes. Tubing provides bend radii protection and high crush resistance for cables and/or cable sub-elements as they are transported to a fiber enclosure.</i>
FM5PPBLF4.0-12	Protection tubes, 4' (1.2m) x 12 off Inside diameter 3.1mm
FM5PPBLF8.0-12	Protection tubes, 8' (2.4m) x 12 off Inside diameter 3.1mm
FOBKF144YM1 FOBKF288YM1	Fiber Optic Breakout Kit, Flat, 144F, Singlemode, 1m Fiber Optic Breakout Kit, Flat, 288F, Singlemode, 1m
FDFSPLKITBL	Slack Spool Kit <i>Manage excess fiber trunk length</i>

Patch Cords – Uniboot LC Duplex, 2 Fiber, 2.0mm Round Jacket



Part Number	Description
F92R*U1U1ONM004 F92R*U1U1ONM010	OS2, LC-LC (Uniboot) Optimized IL, 4m OS2, LC-LC (Uniboot) Optimized IL, 10m
F92R*U2U2ONM004 F92R*U2U2ONM0009	OS2, LC APC-LC APC (Uniboot) Optimized IL, 4m OS2, LC-LC (Uniboot) Optimized IL, 9m
FZ2R*U1U1ONM004 FZ2R *U1U1NNM004 FS2R*U1U 1NNM004 FZ2R*U1U1ONM009 FZ2R *U1U1NNM009 FS2R*U1U1NNM009	OM4, LC-LC (Uniboot) Optimized IL, 4m OM4, LC-LC (Uniboot) Ultra IL, 4m OM4+, LC-LC (Uniboot) Ultra IL, 4m OM4, LC-LC (Uniboot) Optimized IL, 9m OM4, LC-LC (Uniboot) Ultra IL, 9m OM4+, LC-LC (Uniboot) Ultra IL, 9m

*P for Plenum, L for LSZH

<https://www.panduit.com/content/dam/panduit/en/products/media/4/64/264/8264/110318264.pdf>

For extended range of patch cord styles and grades visit www.panduit.com and/or contact your Panduit sales representative.

[QuickNet™ Trunk Cable Assemblies](#)

[Click to visit Panduit's online configurator.](#)



Customer Support

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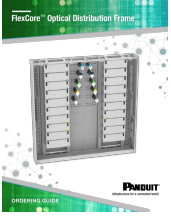
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Asia Pacific: 65.6305.7575

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Documents / Resources

	<p>PANDUIT FlexCore Optical Distribution Frame [pdf] Installation Guide FlexCore Optical Distribution Frame, FlexCore, Optical Distribution Frame, Distribution Frame, F rame</p>
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References

- **P** [Panduit | Network Infrastructure and Industrial Electrical Wiring](#)

