Enhanced Management Frame (EMF)

CORNING

Features and Benefits

Individual 12- or 24-fiber modules
Maximize scalability and modularity

Integrated splice capability
Enables on-frame splicing without sacrificing density when using standard EMF modules

Modules extend/retract independently
Minimizes connector disturbance

Top and rear strain-relief
Ensures bend-radius control

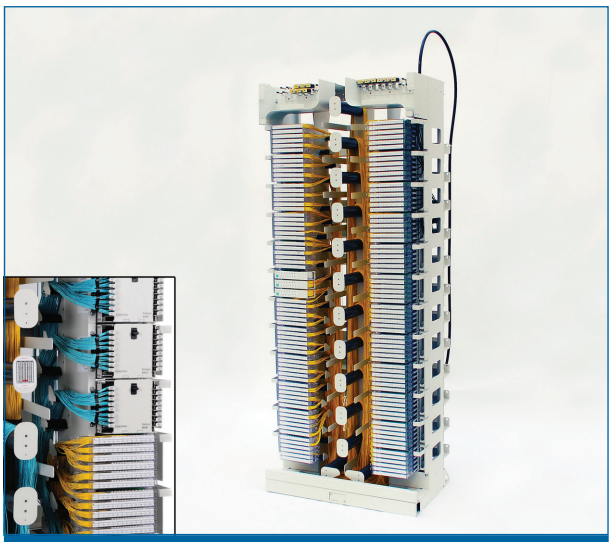
Reduced fiber routing density
Reduce fiber trough build by 91percent when using EMF MTP® Housings

Improved density
Increased density with EMF EDGE™ Housings and Modules with LC Connectors -2,304 fiber terminations

The enhanced management frame (EMF) is designed for FTTx, cross-connect and interconnect applications. The integrated modular design allows growth and expansion of a fiber management system one frame, one module and one fiber termination at a time. User-friendly features such as single jumper length, in-bay jumper storage, transparent modules and multiple inter-bay routing options make this frame an ideal solution for both FTTx deployments and traditional cross-connect and interconnect applications.

The EMF uses a single 12-fiber module that may be configured with splitters/couplers and wavelength division multiplexers (WDMs) that support today's FTTx passive optical networks. A 12- or 24-fiber module is available for pigtailed, stubbed, empty, or adapter only options. Each module extends and retracts independently from the frame for minimal adjacent connector disturbance and a "quiet-front" appearance. Splicing facilities within the module maintain the maximum 1728-fiber terminations with SC and LC connectors (using 12-fiber module) and 3456-fiber terminations using the 24-fiber LC module. By splicing off the frame and specifying EMF EDGE housings/modules and LC connectors, Plug & Play™ frame density is 2,304 fiber terminations.

Integrated fiber management within modules will store 3 m of buffer tube or ribbon slack and 1 m of 900 µm pigtail slack. Factory-stubbed termination modules and housings are available for both the left and right sides of the frame.



Enhanced Management Frame
| Photo FOH003

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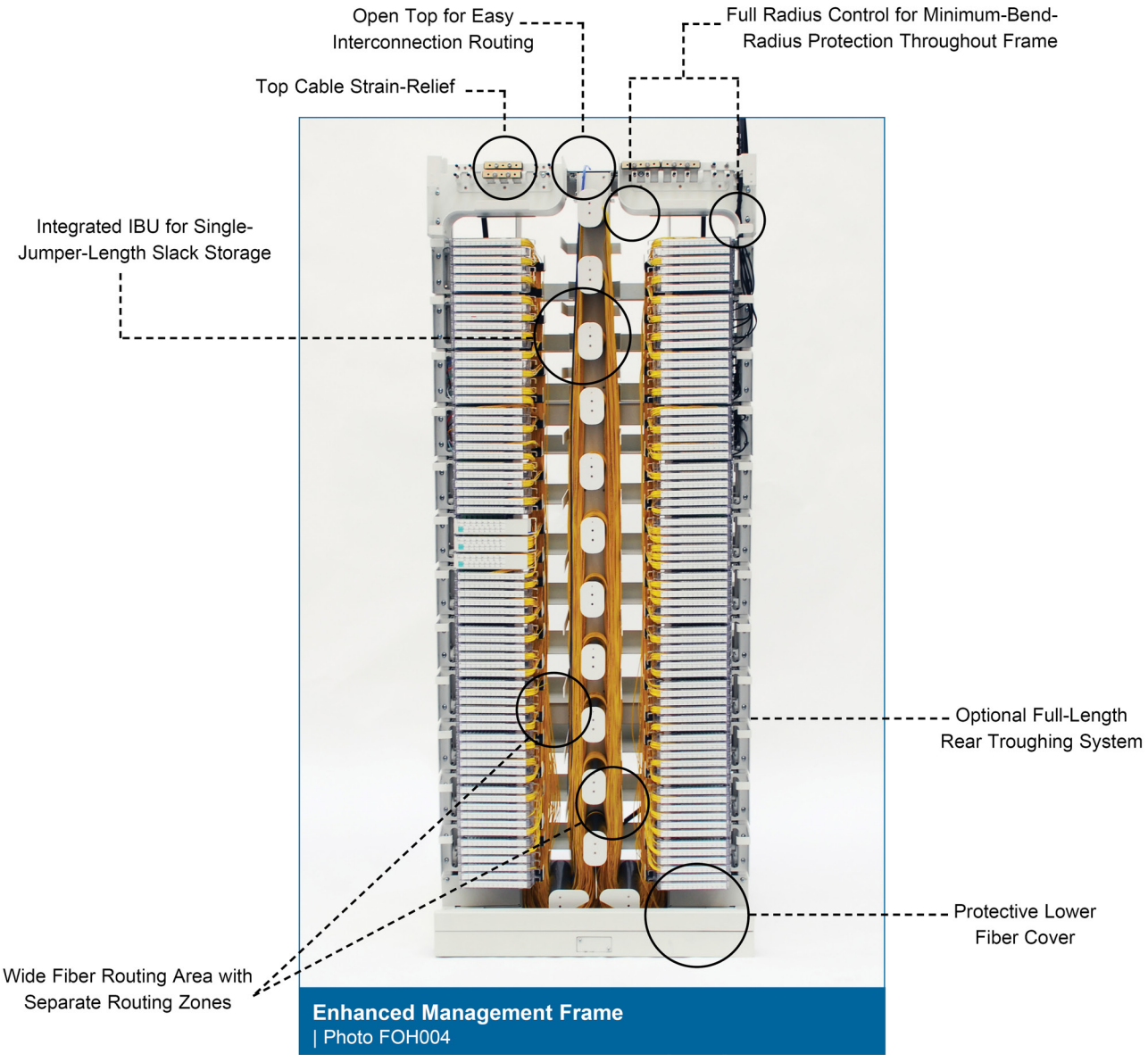
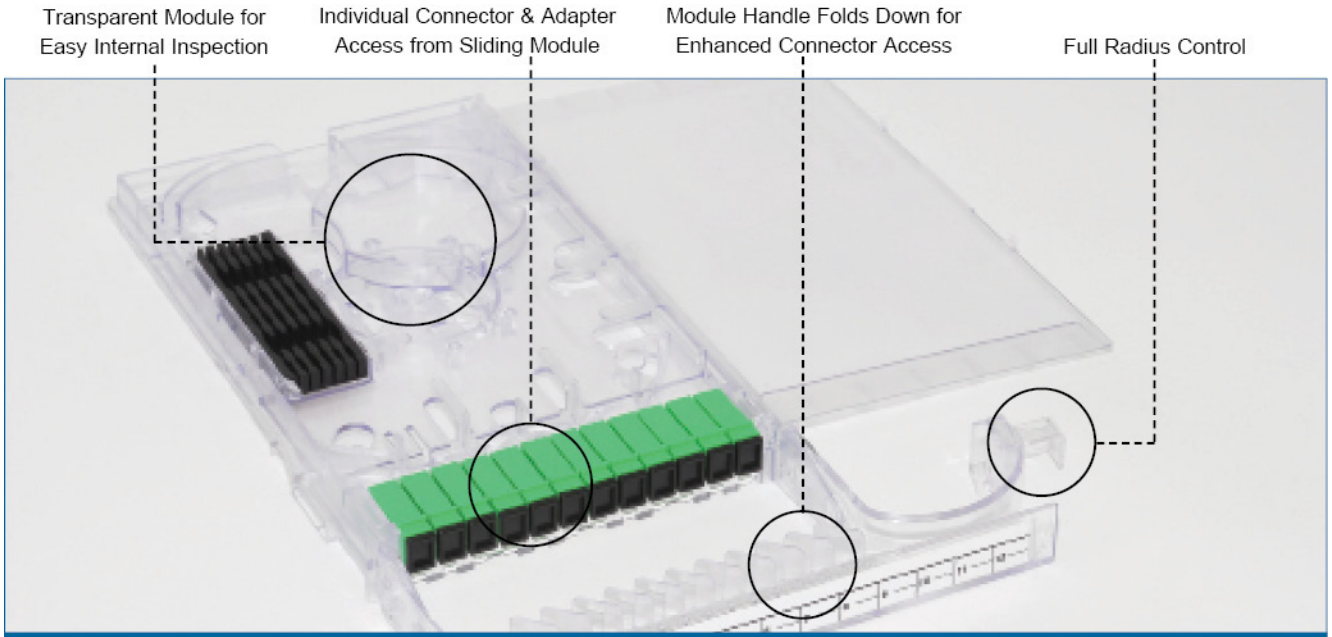
Enhanced Management Frame (EMF)

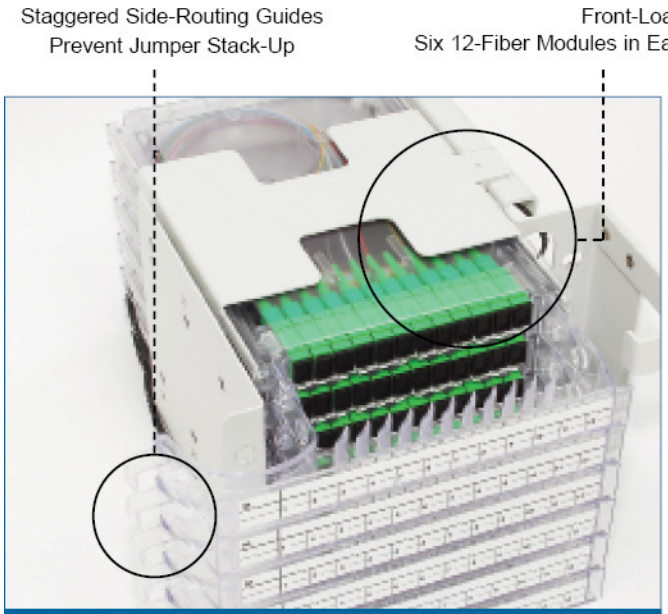


Enhanced Management Frame
| Photo FOH004

Enhanced Management Frame (EMF)



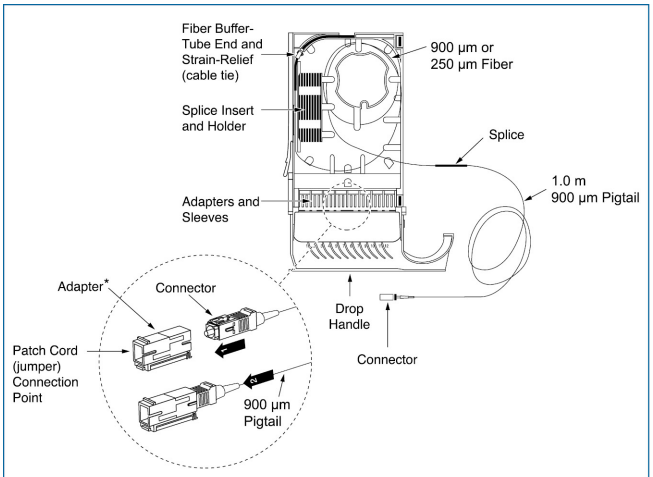
EMF Module
| Photo FOH032



EMF Housing
| Photo FOH035

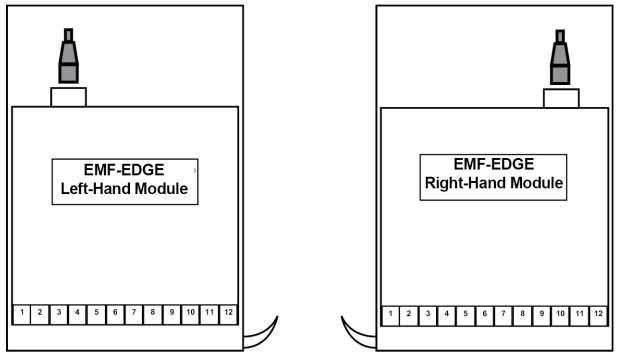
EMF Housing with EDGE Module
| Photo LAN2325

Enhanced Management Frame (EMF)

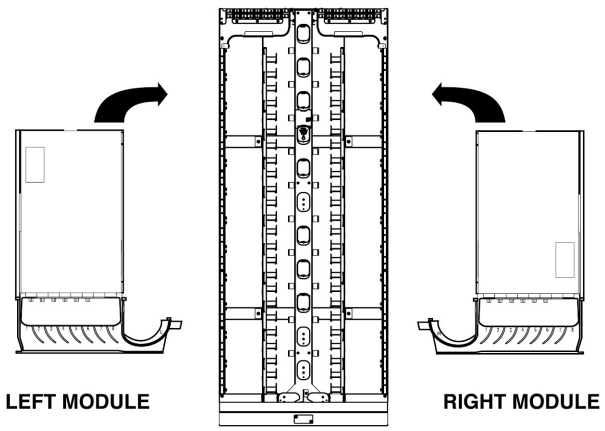


Note: For adapter part numbers, see Page 6.

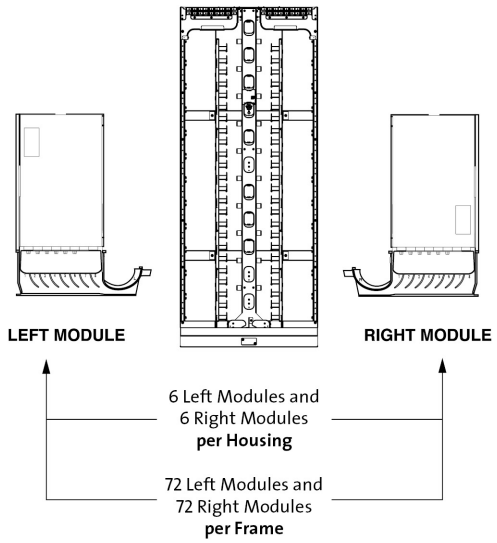
Left Module (top view)
| Drawing ZA-926



EMF EDGE Housing
| Drawing ZA-3873



Left Module (bottom view)
| Drawing ZA-931



Modules per Housing and Frame
| Drawing ZA-921

Enhanced Management Frame (EMF)

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Housings and Modules

Housings and modules for the EMF are available in four configurations:
- Empty
- Loaded with adapter modules
- Pigtailed
- Stubbed

Housings and modules for the EMF EDGE™ are available in two configurations:
- Empty
- Loaded with modules

EMF Module, 12-Fiber
| Photo FOH011

Specifications

Adapter Capacity

Adapter Type	Terminations per Module	Module/Housing Type	Modules per Housing	Terminations per Housing	Terminations per Frame
SC	12	EMF	6	72	1728
LC	12	EMF	6	72	1728
LC	12	EDGE	8	96	2304
LC	24	EMF	6	144	3456

Ordering Information

Housings – Empty

Part Number	Description	Dimensions (H x W
CCF-CML-072	Enhanced Management Frame (EMF) Housing; empty Left-Hand Housing, holds six EMF modules	13.97 x 21.92 x 29.84 cm (5.50 x 8.63 x 11.75 in)
CCF-CMR-072	Enhanced Management Frame (EMF) Housing; empty Right-Hand Housing, holds six EMF modules	13.97 x 21.92 x 29.84 cm (5.50 x 8.63 x 11.75 in)
CCF-CML-07289	Enhanced Management Frame (EMF) Housing; Empty Left-Hand Housing with positions for six 12-fibers EMF MTP® modules	13.97 x 21.92 x 29.84 cm (5.50 x 8.63 x 11.75 in)
CCF-CMR-07289	Enhanced Management Frame (EMF) Housing; Empty Right-Hand Housing with positions for six 12-fibers EMF MTP® modules	13.97 x 21.92 x 29.84 cm (5.50 x 8.63 x 11.75 in)

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Enhanced Management Frame (EMF)

Ordering Information

Housings – Empty		
Part Number	Description	Dimensions (H x W
CCF-CML-96EDGE	Empty Left-Hand Housing, holds eight EDGE Solutions modules	14.5 x 24.1 x 33.1 cm (5.71 x 9.49 x 13.03 in)
CCF-CMR-96EDGE	Empty Right-Hand Housing, holds eight EDGE Solutions modules	14.5 x 24.1 x 33.1 cm (5.71 x 9.49 x 13.03 in)

Housings – Loaded with Modules and Adapters

Ordering Information

Left-hand module

CC□-CML-□□ □□

1 2 3

Right-hand module

CC□-CMR-□□ □□

1 2 3

1 Select fiber count.
- F = 72 fibers (SC/LC)
- E = 144 fibers (LC only)

2 Select number of fibers requiring adapters.
- 00 = Empty housing
- 72 = 72 adapters
- E4 = 144 housings *(see note 1)*

3 Select single-mode adapter code.
- 3C = SC UPC *(see note 2)*
- 6C = SC APC *(see note 2)*
- A9 = LC UPC duplex *(see note 3)*
- B3 = LC APC duplex *(see note 3)*

Notes:
1) E4 used only with E fiber count which is only with 24 F LC solution. E4 in digit 2 requires E in digit 1, only available in 24F LC module.
2) Maximum SC adapter capacity is 12 fibers per module.
3) Maximum LC adapter capacity is 24 fibers per module.

Ordering Information

Part Number Example	
Part Number	Description
CCF-CML-726C	Left EMF Housing loaded with modules, 72 SC APC adapters installed

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Ordering Information

Single Adapter Only Part Numbers	
Part Number	Description
ADP-SC00-CCGDF-CLS	Adapter, SC APC simplex with mounting clip
ADP-SC00-CCNDF-CLS	Adapter, SC UPC simplex with mounting clip
ADP-DLC0-CCGRC-CLS	Adapter, LC APC duplex, reduced flange, integral clip
ADP-DLC0-CCNRC-CLS	Adapter, LC UPC duplex, reduced flange, integral clip
ADP-FC00-MMXTH-NLS	Adapter, FC UPC, threaded flange

Modules – Loaded with Adapters

Ordering Information

Left-hand module

CCML ☐☐ - ☐☐

1 2

Right-hand module

CCMR ☐☐ - ☐☐

1 2

1 Select number of fibers requiring adapters.

- 00 = Empty module
- 12 = 12 fibers per module (SC/LC)
- 24 = 24 fibers per module (LC duplex only)

2 Select single-mode adapter code.

- 3C = SC UPC
- 6C = SC APC
- A9 = LC UPC duplex
- B3 = LC APC duplex

Notes:
1) Maximum SC adapter capacity is 12 fibers per module.
2) Maximum LC adapter capacity is 24 fibers per module.

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Enhanced Management Frame (EMF)

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EMF MTP® Modules

Ordering Information

Left-hand module

CCML□□03-□□-MT00C
1 2

Right-hand module

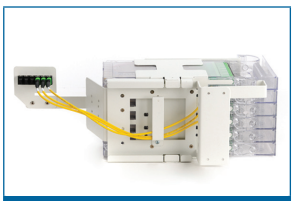
CCMR□□03-□□-MT00B
1 2

1 Select fiber count.
- 12 = 12 fibers
- 24 = 24 fibers (LC only)

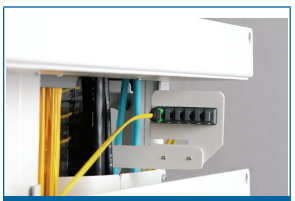
2 Select single-mode adapter code.
- 3C = SC UPC
- 6C = SC APC
- A9 = LC UPC duplex
- B3 = LC APC duplex

Note: Stubbed or pigtailed housings are available separately in a wide array of configurations. Each complete housing can accommodate up to six modules. Stubbed or pigtailed modules are also available separately in the same array of configurations. Individual modules can be easily loaded into unused positions within a previously installed housing. Contact your Corning Cable Systems Customer Care Representative for module and housing ordering information at 800-743-2675 or internationally at +1-828-901-5000.

Note: MTP adapter housing can only support (3) 24F MTP modules.



EMF Module
| Photo FOH357



EMF Frame
| Photo CRR803

Ordering Information

Part Number Example	
Part Number	Description
CCML1203-6C-MT00C	Left EMF Module with 12 SC APC adapters installed, pinned 12-fiber MTP Connector Stub

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Enhanced Management Frame (EMF)

Housing and Modules with Pigtails

Ordering Information

1		2	3		M	4		-	5		- 1	R	6	7	0	8	0
□	□	□	□	□	M	□	□	-	□	□	- 1	R	□	0	□	0	

1 Select hardware type.
CC = Pigtailed housing
CM = Pigtailed module

2 Select hardware mounting side.
R = Right
L = Left

3 Select total fiber count.
Enter number 01-E4.
Example:
06 = 6 fibers
12 = 12 fibers
24 = 24 fibers
72 = 72 fibers
E4 = 144 fibers (LC only)
See Note 1.

4 Select fiber count of each module.
Enter number 01-24
Example:
06 = 6 fibers
12 = 12 fibers
24 = 24 fibers (LC only)

5 Select single-mode connector type.
3C = SC UPC
6C = SC APC
A9 = LC UPC duplex
B3 = LC APC duplex

6 Defines mode of operation.
R = Single-mode (OS2)

7 Select pigtail type.
J = Ribbon
H = MIC 900 µm buffered fiber

8 Select jumper tracing option.
0 = No jumper tracing
S = SearchLite® Tracing System (SC UPC only)

Notes:
1) E4 in digit 3 requires 24 in digit 4.
2) 12-fiber housings are shipped individually with a maximum fiber count of 72. 24-fiber housings are shipped individually with a maximum fiber count of 144.
3) Pigtailed modules ship with both Q-pack and heat-shrink holders.

Ordering Information

Part Number Example	
Part Number	Description
CCL72M12-3C-1RJ000	Pigtailed Left-Hand EMF Housing, total fiber count is 72 fibers using 12 fibers per module, connectors are SC UPC, pigtail type is a 1 m single-mode ribbon
CMR12M12-6C-1RH000	Pigtailed Right-Hand Module, 12 F, Single-mode (OS2), SC APC connectors, MIC 900 µm

Enhanced Management Frame (EMF)

EDGE™ Modules

EDGE Module with VFL-Compatible Shutters
| Photo LAN1545

Ordering Information

E C M - □ M 1 2 - □ □ - □ □ □

1

1 Select polarity type.
U = Multimode
S = Straight-through
See Note.

2 Select LC duplex adapters on front of modules.
04 = Single-mode (OS2)
05 = Multimode (OM3/OM4)

3 Select pinned MTP adapter on rear of module.
93 = 50 µm multimode (OM3/OM4)
89 = Single-mode (OS2)

4 Select fiber type.
T = 50 µm multimode (OM3)
Q = 50 µm multimode (OM4)
R = Single-mode (OS2)

Notes:
Universal polarity accounts for one send and one receive fiber per pair so Fiber 1 (send) will come out on Fiber 2 (receive) on other end.
Straight-through polarity is most often used with Single-mode fiber using two different wavelengths for send and receive.

Enhanced Management Frame (EMF)

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Housing and Modules with Stubbed Cable

Ordering Information

□ □ □ □ □ □ □ □ - □ □ - □ □ □ □ 1 □

1 2 3 4 5 6 7 8 9

1 Select hardware type.

CCF = 72-fiber EMF housing (using 6 each 12 F modules)
CCE = 144-fiber EMF housing (LC only) (using 6 each 24 F modules)*
CCM= 12-fiber EMF module
See Note 1.

2 Select hardware mounting side.

R = Right-side housing with cable entry at top right
L = Left-side housing with cable entry at top left

3 Select total fiber count.

Enter number 01-E4.

Example:
06 = 6 fibers
12 = 12 fibers
72 = 72 fibers
E4 = 144 fibers*
See Note 1.

4 Select cable length in meters.

01-99 = Enter number
> 99 = Enter alpha-numeric code from Table A

5 Select single-mode connector type.

3C = SC UPC
6C = SC APC
A9 = LC UPC duplex
B3 = LC APC duplex

6 Defines mode of operation.

– = Single-mode (OS2)

7 Select cable type.

900 µm Coated Fiber Cables
81 = MIC riser indoor cable with buffered fiber
88 = MIC plenum cable with flexible buffered fiber
250 µm Coated Fiber Loose Tube Cables (2-144 fibers)
D9 = MIC 250 2.0 Interconnect cable
U4 = ALTOS all-dielectric outdoor cable
U5 = ALTOS single-armored outdoor cable
U7 = ALTOS riser cable
UF = FREEDM indoor/outdoor cable
Ribbon Fiber Cables (12-144 fibers)
C4 = SST-Ribbon all-dielectric outdoor cable
C5 = SST-Ribbon single-armored outdoor cable
C6 = SST-Ribbon double-armored outdoor cable
C7 = Ribbon riser cable
CF = FREEDM ribbon riser indoor/outdoor cable

8 Select special options.

00 = Standard Configuration
SL = SearchLite Tracing System (SC UPC only)

9 Select hardware mounting side.

B = Right-side housing with cable entry at top right
C = Left-side housing with cable entry at top left

Notes:
1) One housing shipped for 1-72 fibers. Two housings shipped for 144 fibers using the CCF configuration or one housing shipped for 144 fibers using the CCE configuration.
2) Not all part number configurations are available. Please confirm availability with a Corning Customer Care Representative.
3) Some product combinations using this matrix are not available. Please verify specific product availability with a Corning Customer Care Representative. For more information on the availability of special configurations, please contact Corning Customer Care Representative.

*Use C7 and D9 cable type stubs only when CCE is selected for digit 1 and E4 is selected for digit 3.

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Ordering Information

Part Number Example	
Part Number	Description
CCFL7231-3C-C7SL1C	Left-Hand 72-Fiber Stubbed EMF Housing with 31 m of single-mode ribbon riser cable attached and terminated with SC UPC connectors featuring SearchLite Tracing System adapters; cable

Table A: Codes for Fiber Counts and Cable Stub Lengths Over 99

A _ = 10_	M_ = 21_	X _ = 31_	AH = 410
B _ = 11_	N _ = 22_	Y _ = 32_	AJ = 420
C _ = 12_	P _ = 23_	Z _ = 33_	AK = 430
D _ = 13_	Q _ = 24_	AA = 340	AL = 440
E _ = 14_	R _ = 25_	AB = 350	AM = 450
F _ = 15_	S _ = 26_	AC = 360	AN = 460
G _ = 16_	T _ = 27_	AD = 370	AP = 470
H _ = 17_	U _ = 28_	AE = 380	AQ = 480
J _ = 18_	V _ = 29_	AF = 390	AR = 490
K _ = 19_	W_ = 30_	AG = 400	AS = 500
L _ = 20_			

Examples:
E4 = 144 fiber
A5 = 105 m

Notes:
1) "I" and "O" are not used.
2) Lengths from 100 to 339, use single letter plus number (1 to 9).
3) Lengths over 339 m can be ordered only in 10 m increments.

Table B: Standard Cable Types for Stubbed Hardware

Cable Type Code	Description	Fiber Count	Fiber Type
C4	SST-Ribbon™ dielectric outdoor cable	12-144	Single-mode
C7	Ribbon riser indoor cable	12-144	Single-mode
U4	ALTOS all-dielectric outside plant cable	12-144	Single-mode
CF	FREEDM ribbon riser indoor/outdoor cable	12-144	Single-mode
UF	FREEDM indoor/outdoor cable	12-144	Single-mode
U7	ALTOS riser cable	12-144	Single-mode

Note: Maximum cable size for EMF housings is 144 fibers.

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EMF MTP® Housings

Ordering Information

Left-hand 72-port Housing	Right-hand 72-port Housing
CCFL7203 - [ ][ ] - MT89C	CCFR7203 - [ ][ ] - MT89B
[1]	[1]

[1] Select single-mode adapter code.

- 3C = SC UPC
- 6C = SC APC
- A9 = LC UPC duplex
- B3 = LC APC duplex

Note: Maximum number of SC adapters per module is 12, per housing is 72 (72 fibers). Maximum number of LC adapters per module is 6 duplex, per housing is 36 (72 fibers).

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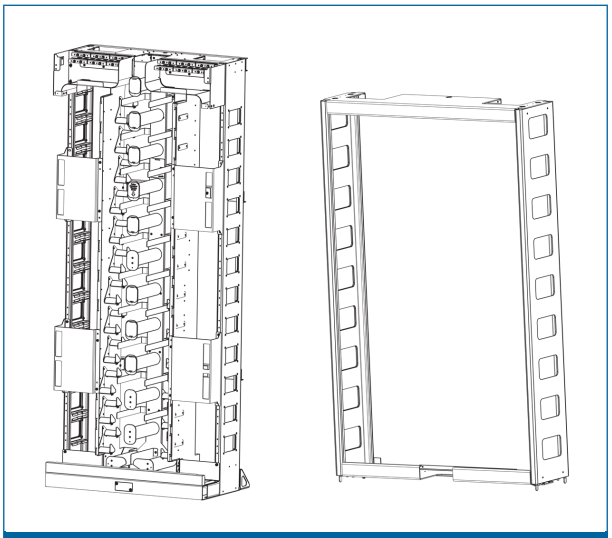
Enhanced Management Frame (EMF)

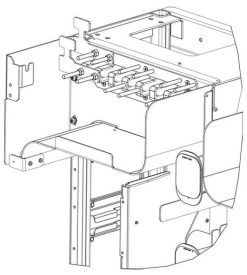
Network Bay Frame



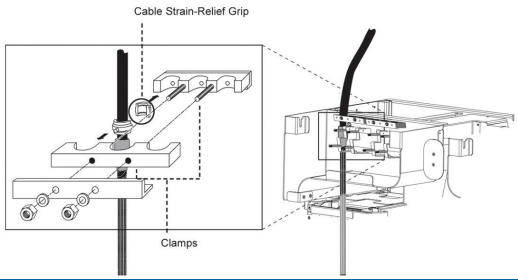
EMF Frame (CCF-FRAME-7) and EMF Extension Kit (CCF-FRAME-EXT-7-11) | Drawings ZA-3599, ZA3598

Part Number	Description	Dimensions (H x W x D)
CCF-FRAME-7	7-ft EMF Frame Mounts 12 LH and 12 RH housings	213.4 x 86.4 x 43.12 cm (84 x 34 x 17.0 in)
CCF-FRAME-EXT-7-8	1-ft EMF Extension used to tie 7-ft frame to 8-ft overhead	30.5 x 86.4 x 43.2 cm (12 x 34 x 17.0 in)
CCF-FRAME-EXT-7-9	2-ft EMF Extension used to tie 7-ft frame to 9-ft overhead	61 x 86.4 43.2 cm (24 x 34 x 17.0 in)
CCF-FRAME-EXT-7-11	4.5 ft EMF Extension used to tie 7-ft frame to 11.5-ft overhead	137.2 x 86.4 x 43.2 cm (54 x 34 x 17.0 in)
CCF-BAY-7	7-ft EMF with 12 rear troughs attached, mounts 12 left-hand and 12 right-hand fiber housings	213.4 x 86.4 x 50.9 cm (84 x 34 x 20.0 in)
CCF-JT-REAR	Individual Rear Trough for EMF	5.08 x 86.4 x 14.2 cm (2 x 34 x 5.6 in)
QFMABK1A	Zone 4 Mounting Bolt Kit	-
CCF-PAD-KIT	Isolation Pad Kit for EMF frame (includes mounting hardware)	86.4 x 43.12 cm (34 x 17 in)
CCF-RAISED FLOOR	Raised Floor Application Kit	30.5 x 86.4 x 7.62 cm (12 x 34 x 3.0 in)

Strain-Relief Components for Front Strain-Relief



Large Cable Strain-Relief Bracket
| Drawing ZA-3600



EMF Cable Clamp Assemblies
| Drawing ZA-3291

Part Number	Cable Diameter	Description
A0388952	0.8 cm (0.32 in)	Cable Grip #1, 0.32-in (8 mm) diameter
A0388954	1.05 cm (0.40 in)	Cable Grip #2, 0.40-in (10.5 mm) diameter
A0388955	1.3 cm (0.50 in)	Cable Grip #3, 0.50-in (13 mm) diameter
A0388956	1.6 cm (0.63 in)	Cable Grip #4, 0.63-in (16 mm) diameter
A0388957	1.75 cm (0.70 in)	Cable Grip #5, 0.70-in (17.5 mm) diameter
A0388958	2.05 cm (0.80 in)	Cable Grip #6, 0.80-in (20.5 mm) diameter
CCF-LRG-CAB-BKT	-	Large Cable Strain-Relief Bracket, for cable dimensions above 0.81 in. includes one bracket and all supporting hardware
A0375902	-	Cable Clamp Assembly, 0.875 in (20.2 mm)/opening three openings per clamp
A0388959	-	Cable Bonding Kit for grounding armored cable

Enhanced Management Frame (EMF)

Front-Mounting Workshelf

EMF front-mounting workshelf provides a convenient workspace for craft persons. The shelf is capable of supporting up to 50 lbs.

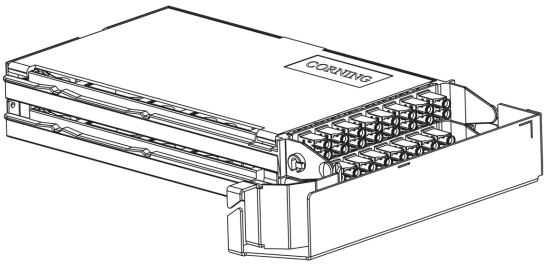
EMF Workshelf
| Photo FOH026

Part Number	Description	Dimensions (H x W
CCF-SHELF	Enhanced Management Frame (EMF) Component; Front-Mounting EMF Workshelf	36.2 x 85 x 38 cm (14.25 x 33.5 x 15.0 in)
P0707979	Service Bracket; holds the fiber termination module in a secure position while being accessed	3.0 x 6.0 x 12.0 cm (1.2 x 2.4 x 4.7 in)

Enhanced Management Frame (EMF)

EMF Optical Components

The EMF FTTx splitter module allows for deployment of passive optical network (PON) architecture with the optical splitter in a central office frame. It is available in dual 1x16 or 1x32 only in LC APC and LC UPC. The EMF course wavelength division multiplexing (CWDM) modules are available in SC APC and SC UPC. EMF splitter modules occupy two positions inside the EMF housings; CWDM modules occupy one position. The modules are designed to meet applicable sections of Telcordia GR-1209-Core and GR-1221-Core. 2.0 mm jumpers recommended length within frame is 5.5 m. See EVO-29-EN for ordering information. See SRP 003-599 for additional jumper recommendations.



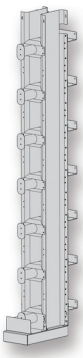
EMF 1x32 Splitter Module
| Drawing ZA-3329

Part Number	Description
MLS1AAB30B301132	Enhanced Management Frame (EMF) Splitter Module; Left-Hand 1x32 Splitter Module with LC APC Single-mode input/output adapters
MRS1AAB30B301132	Enhanced Management Frame (EMF) Splitter Module; Right-Hand 1x32 Splitter Module with LC APC Single-mode input/output adapters
MLS1AAB30B302116	Enhanced Management Frame (EMF) Splitter Module; Left-Hand 1x16 Splitter Module with LC APC Single-mode input/output adapters
MRS1AAB30B302116	Enhanced Management Frame (EMF) Splitter Module; Right-Hand 1x16 Splitter Module with LC APC Single-mode input/output adapters
MRC1AA3C03C01ZZZ	Enhanced Management Frame (EMF) CWDM Demultiplexing Right-Hand Module; 9 in, 1 out; SC
MRC1AA6C06C01ZZZ	Enhanced Management Frame (EMF) CWDM Demultiplexing Right-Hand Module; 9 in, 1 out; SC
MRC1AA3C03C01XXX	Enhanced Management Frame (EMF) CWDM Multiplexing Right-Hand Module; 1 in, 9 out; SC
MRC1AA6C06C01XXX	Enhanced Management Frame (EMF) CWDM Multiplexing Right-Hand Module; 1 in, 9 out; SC

Enhanced Management Frame (EMF)

Inter-bay Distribution (IBD)
EMF inter-bay distributors are designed to be placed between two EMFs and are used to store and manage jumper slack. They each require a 5-in gap between frames for mounting.

End Cap and Door Cover
EMF end caps protect the end of a bay line-up while providing a clean, finished appearance. A dual-door front cover provides individual access to the left or right column of termination housings.



Inter-bay Dual Storage Unit | Drawing ZA-3251

EMF End Cap | Drawing ZA-3250

Dual-Door Cover | Drawing ZA-3246

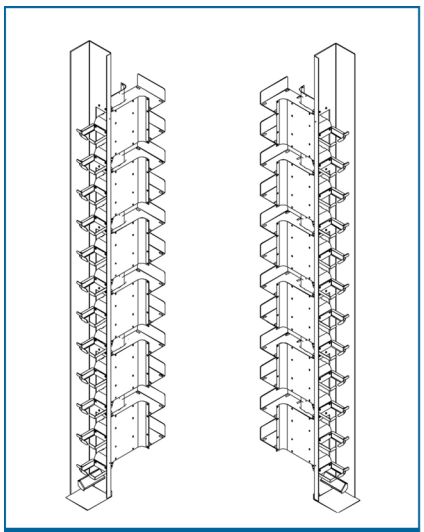
Ordering Information

Part Number	Description	Dimensions (H x W
CCF-IBD-T3	Enhanced Management Frame (EMF) Component; inter-bay dual storage unit designed exclusively for use with the EMF; features left-to-right fiber routing,	213.4 x 12.7 x 30.0 cm (84 x 5 x 11.8 in)
CCF-IBD-EC-7	Contains the CCF-EC-7 end cap to create a single kit for ending a bay line-up with slack storage and end protection	213.4 x 12.7 x 30.0 cm (84 x 5 x 11.8 in)
CCF-COVER-7	Simple One-Piece Decorative Lift-Off Panel Cover for the front of the EMF	206 x 86.4 x 2.54 cm (81.1 x 34 x 1.0 in)
CCF-COVER-2-7	Dual-Door Front Cover for the EMF; provides individual access to the left or right column of termination housings	206 x 86.4 x 2.54 cm (81.1 x 34 x 1.0 in)
CCF-EC-7	Decorative End Cap for protecting the end of a bay line-up	213.4 x 38.1 x 2.54 cm (84 x 15 x 1.0 in)
CCF-IBD-PAD-KIT	Isolation Pad for EMF IBD (mounting hardware not required)	40.3 x 19.8 cm (15.9 x 7.9 in)

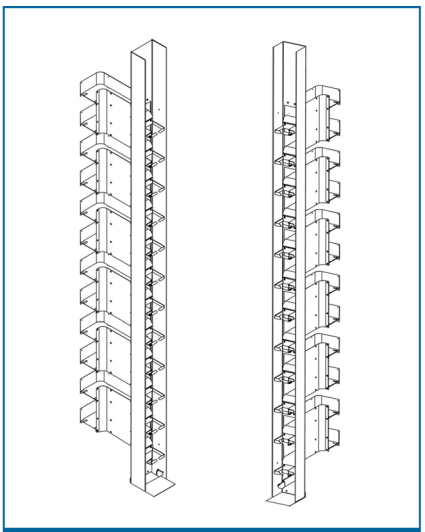
Enhanced Management Frame (EMF)

Transitional Inter-bay Managers

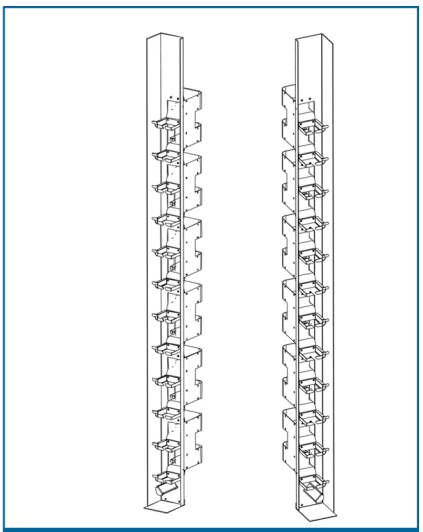
There is a series of transitional inter-bay managers designed to route fiber from the existing FiberManager™ system (FMS) line-ups into new enhanced management frame (EMF) line-ups when the two frame systems are placed side by side. Each transition bay option is distinguished by its relation to the EMF frame and the relative positions of the EMF and FMS frames to each other. Illustrations, application descriptions and part numbers are shown on the following page.



CCF-IBU-FMS-C and CCF-IBU-FMS-C-JT | Drawing ZA-2629



CCF-IBU-FMS-7-LF and CCF-IBU-FMS-7-RF | Drawing ZA-2629



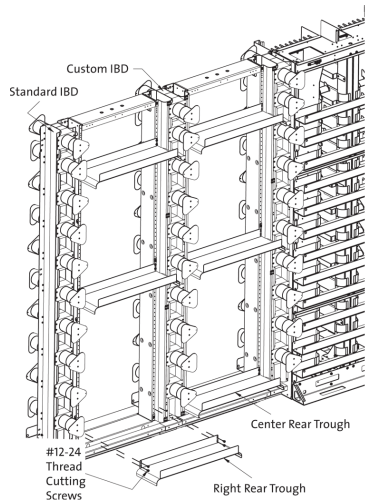
CCF-IBU-FMS-7-L and CCF-IBU-FMS-7-R | Drawing ZA-2629

Part Number	Description	Dimensions (H x W
CCF-IBU-FMS-7-L	IBU that feeds fiber from an FMS to an EMF positioned on the left; hardware order looking from the front and left to right is EMF-IBU-FMS; suitable only for	213.4 x 30.0 x 12.7 cm (84 x 15 x 1.0 in)
CCF-IBU-FMS-7-R	IBU feeds fiber from an FMS to an EMF positioned on the right; hardware order looking from the front and left to right is FMS-IBU-EMF; suitable only for EMF	213.4 x 30.0 x 12.7 cm (84 x 15 x 1.0 in)
CCF-IBU-FMS-7-LF	IBU feeds fiber from an FMS to an EMF positioned on the left; hardware order looking from the front and left to right is EMF-IBU-FMS; suitable only for EMF	213.4 x 30.0 x 12.7 cm (84 x 15 x 1.0 in)
CCF-IBU-FMS-7-RF	IBU feeds fiber from an FMS to an EMF positioned on the right; hardware order looking from the front and left to right is FMS-IBU-EMF; suitable only for EMF	213.4 x 30.0 x 12.7 cm (84 x 15 x 1.0 in)

Enhanced Management Frame (EMF)

EMF to UDF Transition

Corning EMF to UDF integration system provides a unique solution that enables the mounting of traditional optical hardware and electronics right next to the modular EMF frame. Unlike any other solution in the industry, this system provides pre-engineered front to rear and lateral fiber management pathways between a modular-style high-density frame and traditional 19- or 23-in frames without requiring costly overhead raceways.



Troughs Between Custom IBD and Standard IBD Units | Drawing ZA-3601

Trough to be Used on UDF	Frame and IBD Unit Arrangement
Center Rear Trough	UDF is between two custom IBD units
Right Rear Trough	UDF is to right of EMF when viewed from front and UDF has no IBD or has a standard IBD on its right side
Left Rear Trough	UDF is to left of EMF when viewed from front and UDF has no IBD or has a standard IBD on its left side

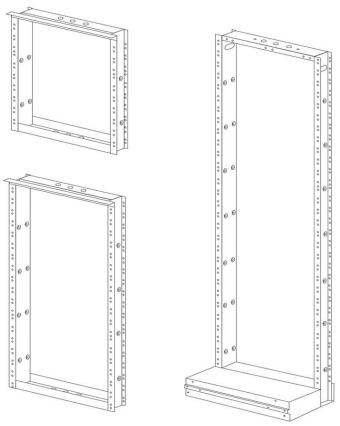
Ordering Information

Transition Equipment	
Part Number	Description
CCF-JT-UDF-CR	Individual Jumper Trough, EMF-UDF, center, rear trough, platinum
CCF-JT-UDF-RR	Individual Jumper Trough, EMF-UDF, right, rear trough, platinum
CCF-JT-UDF-LR	Individual Jumper Trough, EMF-UDF, left, rear trough, platinum
CCF-IBD-UDF-7	IBU, transition, EMF-UDF, platinum

Enhanced Management Frame (EMF)

Frame Components

Equipment Racks
The backbone of each distribution bay is its equipment rack. Standard 58.4-cm (23 in) equipment racks are available in 2.1-m (7 ft) heights. 2.7-m (9 ft) and 3.5 m (11.5 ft) heights are achieved using 2 and 4.5-ft extensions. Rack styles feature industry-standard EIA hole spacing.



UDF Equipment Rack and Extensions
| Drawing ZA-1628

Equipment Racks			
Part Number	Description	Dimensions (H x W x D)	Shipping
UDF-ERO-23E-07-000	7-ft Unequal Flange Equipment Rack, 23-in, platinum	213.4 x 65.8 x 25.7 cm (84 x 25.9 x 10.1 in)	22.6 kg (50 lb)
UDF-ERO-19E-07-000	7-ft Unequal Flange Equipment Rack, 19-in, platinum	213.4 x 55.6 x 25.7 cm (84 x 21.9 x 10.1 in)	22.6 kg (50 lb)

Ordering Information

Extensions			
Part Number	Description	Dimensions (H x W x D)	Shipping
UDF-EXT-23E-02-000	2-ft Rack Extension for use with UDF rack (23-in), platinum	60.9 x 65.8 x 25.7 cm (24 x 25.9 x 10.1 in)	9.1 kg (20 lb)
UDF-EXT-23E-04-000	4.5-ft Rack Extension for use with UDF rack (23-in), platinum	137.0 x 65.8 x 25.7 cm (54 x 25.9 x 10.1 in)	15 kg (33.1 lb)

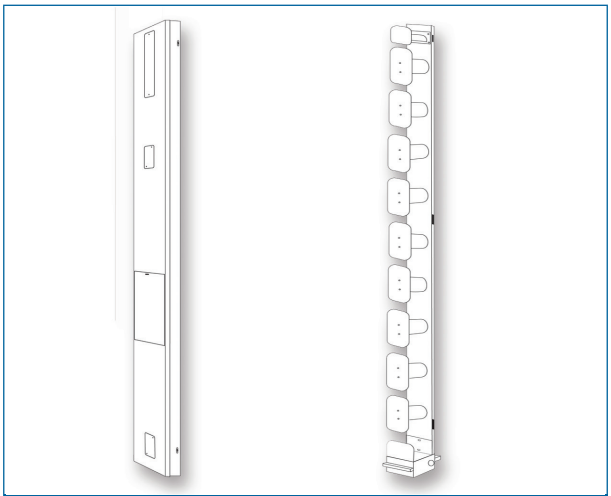
Enhanced Management Frame (EMF)

Frame Components

End Caps
End caps provide protection for the end of each row of bays. End caps are not required between the racks in a given row (must be ordered separately).

Foot Caps
Foot caps are a protective covering at the base of the rack that allow mounting of A/C outlets that are required in the frame system.

Inter-bay Storage Units
Inter-bay Storage Units (IBUs) route and manage jumpers on the front of the UDF. The IBUs have nine routing hubs, a top jumper trough bridge and a bottom jumper trough.



End Cap (UDF-ECO-07-000) and Inter-bay Storage unit (UDF-IBU-7-1) | Drawings ZA-1266, ZA-1653

End Caps			
Part Number	Description	Dimensions (H x W x D)	Shipping Weight
UDF-ECO-07-000	End Cap for 7-ft unequal flange rack (UDF)	212.4 x 7.6 x 30.5 cm (83.6 x 3.0 in x 12 in)	15.9 kg (35 lb)

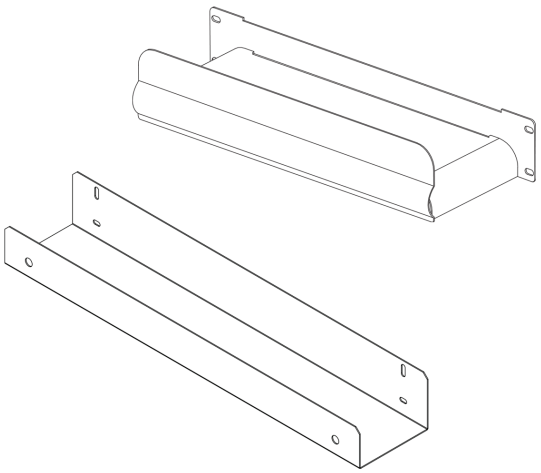
Ordering Information

Inter-bay Storage Units			
Part Number	Description	Dimensions (H x W x D)	Shipping
UDF-IBU-7-1	Inter-Bay Storage Unit with jumper trough, UDF, single sided	213.1 x 12.1 x 15.2 cm (84 x 4.8 x 5.9 in)	9.1 kg (20.0 lb)

Enhanced Management Frame (EMF)

Frame Components

Jumper troughs organize and protect jumpers routed on the front of the frame and allow jumper routing from one side of the rack to the other. Jumper troughs are also used for express routing of jumpers through the bay to adjacent bays and are available in a variety of sizes. Jumper trough bridges provide increased support between bays.



UDF Standard and Upper Troughs
| Drawings ZA-1538 and ZA-2848

Jumper Troughs and Jumper Trough Bridges

Part Number	Description	Dimensions (H x W x D)
UDF-JT-23T-35	UDF Upper Trough for 23-in, beige	10 x 65.5 x 12.7 cm (3.95 x 25.8 x 5 in)
UDF-JT-19T-35	UDF Upper Trough for 19-in, beige	10 x 55.4 x 12.7 cm (3.95 x 21.8 x 5 in)
UDF-JT-23B	UDF Standard Trough for 23-in, beige	10 x 65.5 x 12.7 cm (3.95 x 25.8 x 5 in)
UDF-JT-19B	UDF Standard Trough for 19-in, beige	10 x 55.4 x 12.7 cm (3.95 x 21.8 x 5 in)

Recommended Jumpers for EMF Frames

Part Number	Description
444401R21315.5M	Jumper, 5.5 m long, SC APC, Simplex, 2.0 mm, Single Frame Jumper
585801R21315.5M	Jumper, 5.5 m long, SC UPC, Simplex, 2.0 mm, Single Frame Jumper
222201R21315.5M	Jumper, 5.5 m long, LC APC, Simplex, SM, 2.0 mm Jacket, Single Frame Jumper
020201R21315.5M	Jumper, 5.5 m long, LC UPC, Simplex, SM, 2.0 mm Jacket, Single Frame Jumper
224401R21315.5M	Jumper, 5.5 m long, LC APC to SC APC, Simplex, 2.0 mm, Single Frame Jumper

Enhanced Management Frame (EMF)

CORNING

For further details on how to install Corning enhanced management frame (EMF) products, please refer to these Corning recommended procedures.

Ordering Information

SRP - Installation Information	
Part Number	Description
SRP-003-542	Enhanced Management Frame (EMF) Frame Installation
SRP-003-580	EMF Housing Installation Guide, Jumper Management and Maintenance
SRP-003-599	EMF Jumper Routing Procedures
SRP-003-612	EMF Accessories
SRP-003-613	IBU Bridging EMF and FiberManager™ Frame
SRP-003-622	CCF Frame Extensions for EMF
SRP-003-634	End Cap for EMF
SRP-003-635	End Guard for EMF
SRP-003-636	EMF Door Installation
SRP-000-267	Installation for Inter-Bay Storage Unit EMF to UDF
SRP-000-262	EMF Trough Edge Guard Installation
SRP-000-263	EMF Waterfall Installation
SRP-000-264	EMF Rear Trough Retainer Kit Installation
SRP-003-787	EMF CWDM/Mux and Demux Module Installation
SRP-003-891	EMF Housings with MTP® Connectors

RoHS COMPLIANT

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