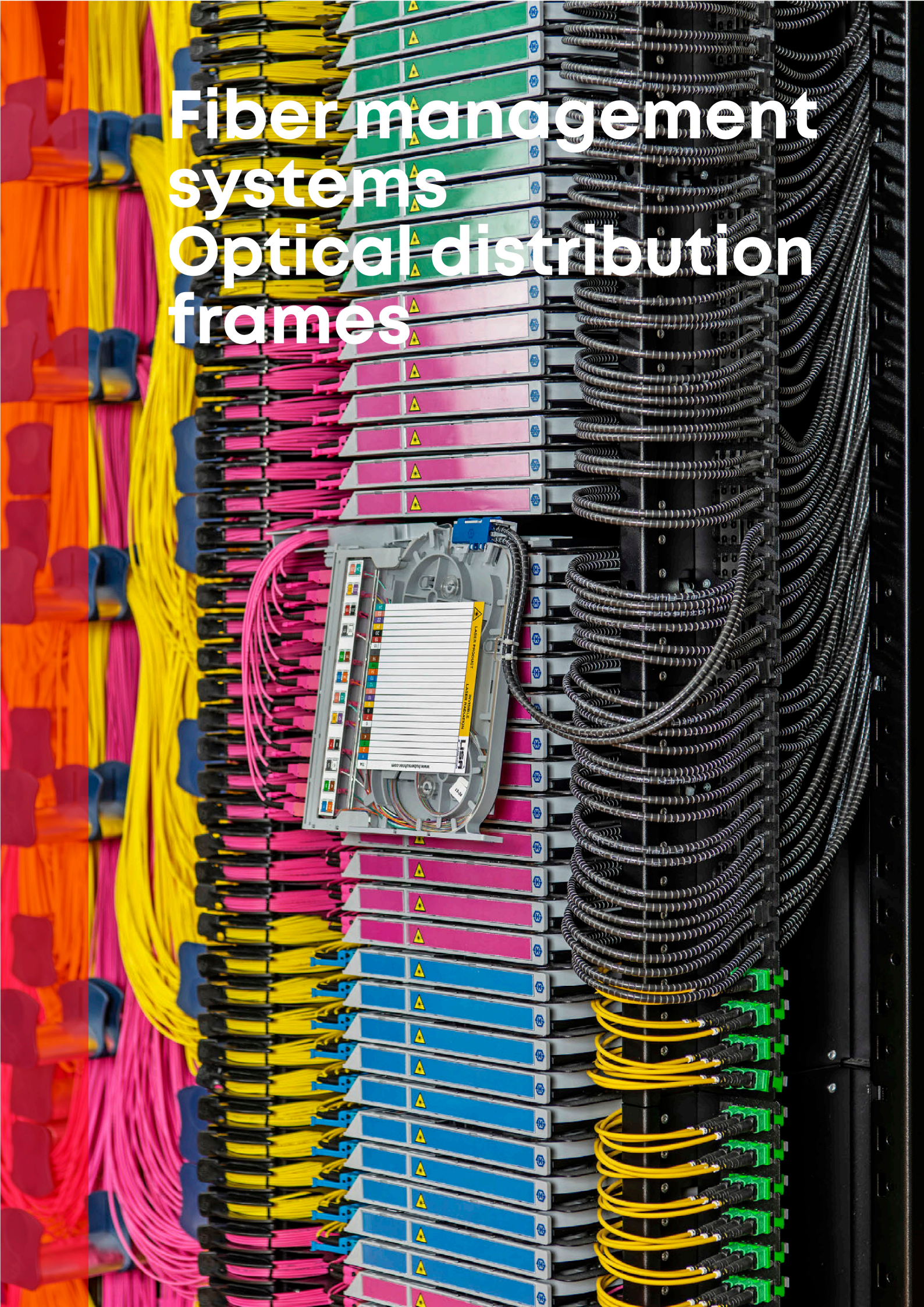


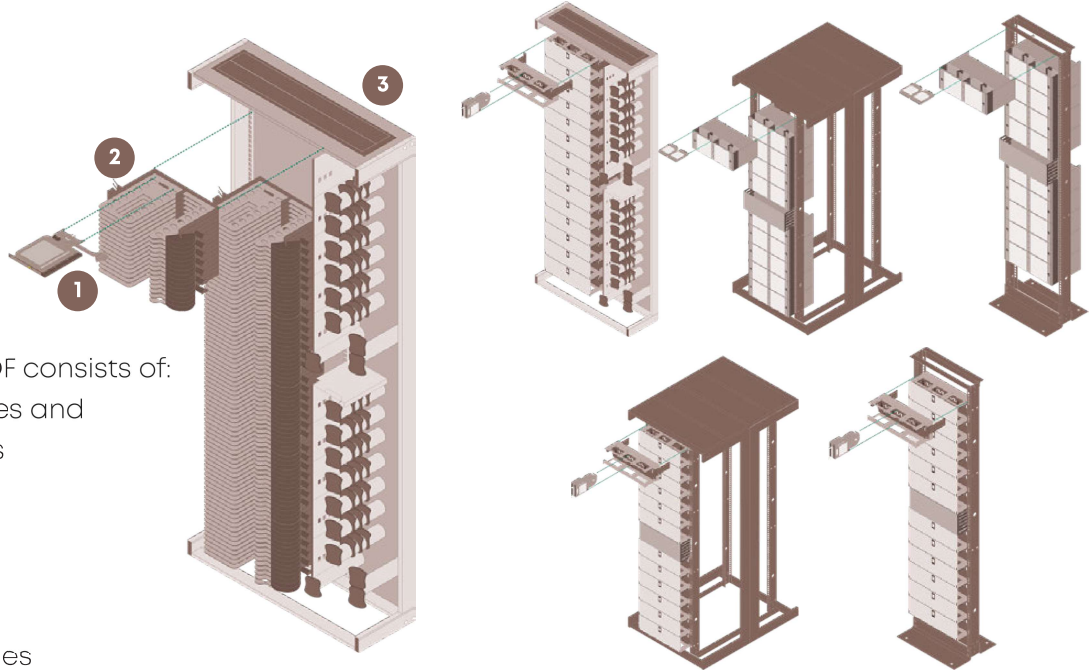
Fiber management systems Optical distribution frames



ODF overview

Optical distribution frame examples

An Optical Distribution Frame (ODF) is a point at which connections between two or more elements within a fiber optic network are facilitated and managed in varying degrees of density and flexibility as demanded by the application or network architecture.



Modular ODF consists of:

- (1) Cassettes and modules
- (2) Chassis
- (3) Rack

ODF examples

ODF name	(1) Rack	(2) Chassis	(3) Cassettes and modules
ODF LISA ODF LISA HD	CDR 47U, 300 mm ↗	LISA chassis ↗	LISA cassettes ↗
ODF SYLFA HD 300mm	NGR 46U, 300 mm ↗	SYLFA HD chassis ↗	SYLFA HD modules ↗
ODF IANOS	Generic 19 inch racks, cabinets or open frames	IANOS 19 inch chassis ↗	IANOS modules ↗
ODF SYLFA HD 19 inch		SYLFA HD 19 inch chassis ↗	SYLFA HD modules ↗

ODF can be also mix of different chassis and racks. Compatibility matrix:


Product family	CDR or NGR	Generic 19 inch
LISA	✓	✓ ¹
IANOS	✗	✓
SYLFA HD	✓	✓
CTS	✓	✗
ZDPHD	✗	✓

Difference NGR and CDR

Feature	CDR	NGR
Height	47U	39U, 46U
Frame	aluminium	steel
Customization via variant configurator	✗	✓
Region	NEU	worldwide

¹ LISA ODU [↗](#)




ODF comparison

ODF feature	ODF LISA ODF LISA HD	ODF SYLFA HD 300mm	ODF IANOS	ODF SYLFA HD 19 inch
Front access only ¹	✓	✓	✗	✗
Front and rear access ²	✗	✗	✓	✓
Adapter orientation ³	Side	Front	Front	Front
300 mm deep rack	✓	✓	✗	✗
Generic 19 inch	✗	✗	✓	✓
Patching	LC, SC, MTP, E-2000	LC, SC	LC, SC, MTP	LC, SC
Transition	LC, SC, E-2000	LC, SC	LC, SC	LC, SC
Base types ⁴	8 12 12 24	12 12	8 12 12 24	12 12
Conversion	✗	✗	✓	✓
Splice in module	LC, SC, E-2000	✗	LC, SC	✗
Splice-through in module	✓	✗	✓	✗
CTS splice point	✓	✓	✗	✗
Pre-terminated modules	✗	✓	✓	✓
Ribbon splicing	✓	✗	✓	✗
TAP modules				
Splitter modules				
xWDM modules				
Application note				

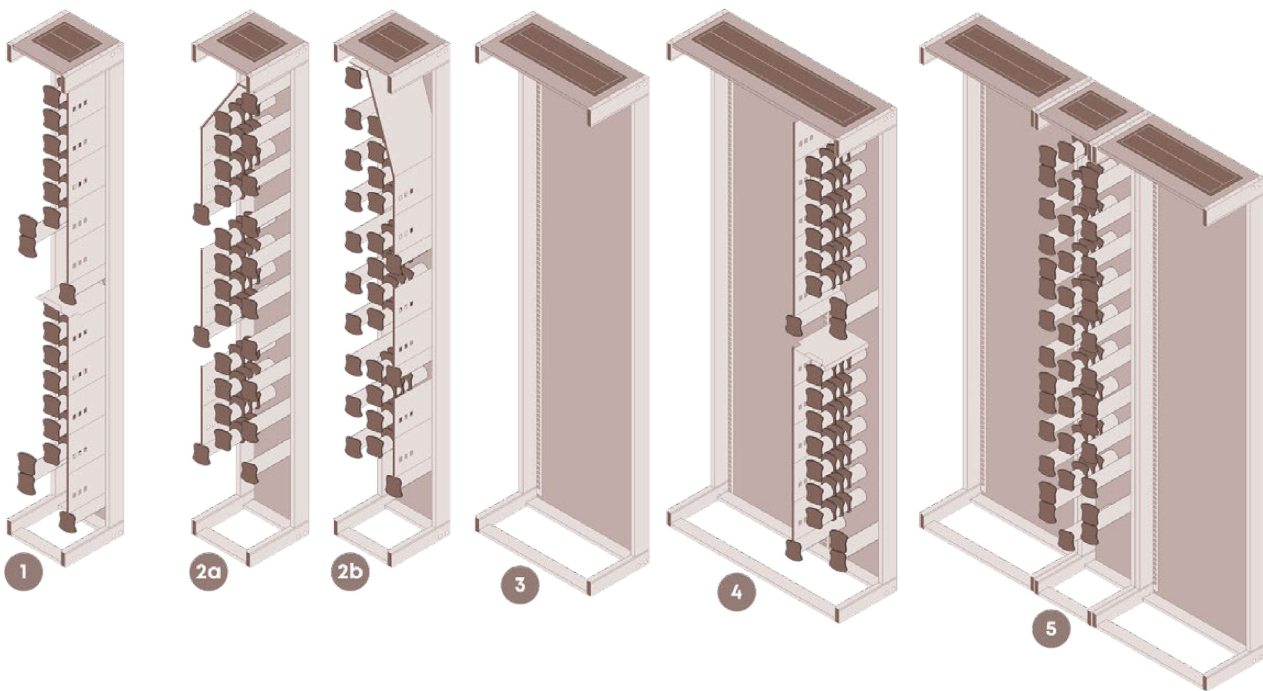
- 1 Both incoming and outgoing ports or cables accessible from the front side
2 Incoming ports or cables accessible from front and outgoing from the rear
3 Orientation towards an operator
4 MTP transition methods

CDR overview

CDR selection guide

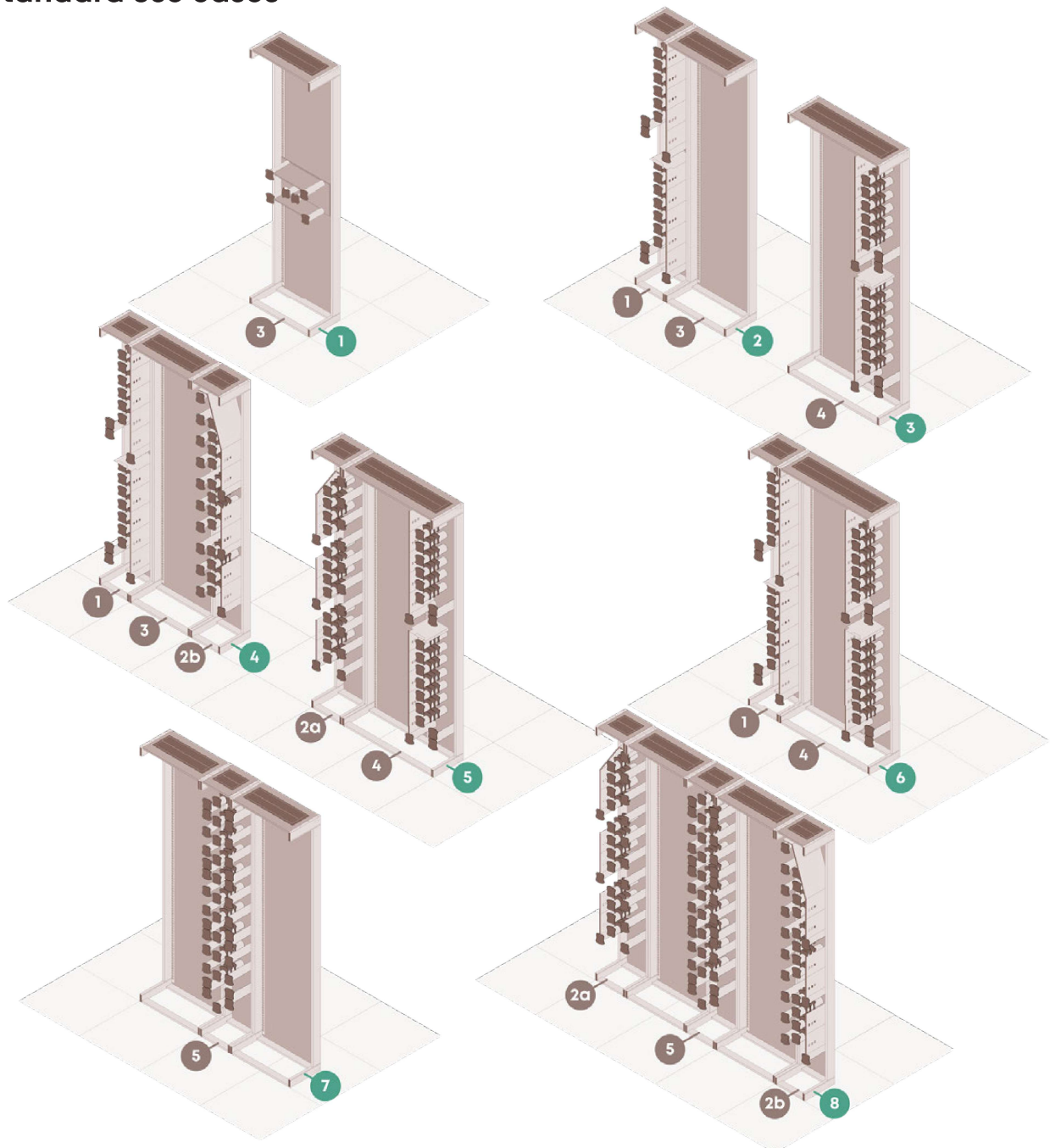
Step 1	Rack	Pre-configured CDR  Pre-defined typical frames + doors configurations	
		Custom CDR  Combining various frames and doors	CDR Frames
			CDR Doors
Step 2	Accessories  Add accessories required by use case		

CDR frame types



- (1) **CDR 300 patch cord management**
Mounted to CDR 600 to create ODF 900 LEFT or to CDR 900 to create ODF 1200 PATCH
- (2) **CDR 300 trunk slack management - LEFT (2a) and RIGHT (2b)**
When extra LEFT and RIGHT trunk slack management required
- (3) **CDR 600**
Single 47U mounting space or in combination with other CDR
- (4) **CDR 900**
Single 47U mounting space and integrated RIGHT patch cord management
- (5) **CDR 1500**
Two 47U mounting spaces with central patch cord management

Standard use cases



(1) ODF 600
Patching, transition or splicing applications

(2) ODF 900 LEFT
Transition or splicing applications

(3) ODF 900 RIGHT*
Transition or splicing applications

(4) ODF 1200 LEFT
With LEFT trunk and patch cord slack management

(5) ODF 1200 RIGHT
With RIGHT trunk and patch cord slack management

(6) ODF 1200 PATCH*
Patching applications

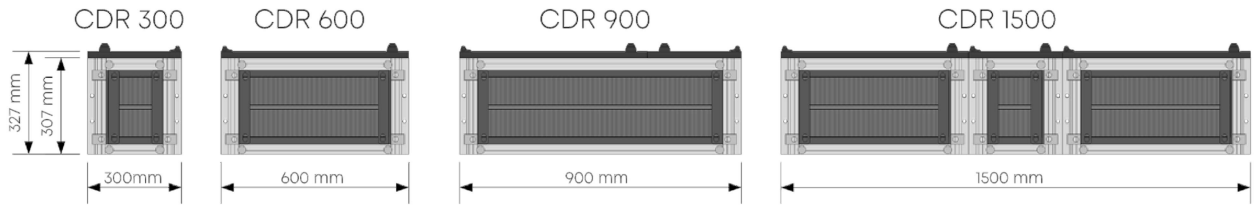
(7) ODF 1500 DOUBLE ACCESS
Transition or splicing applications

(8) ODF 2100 DOUBLE ACCESS*
Transition or splicing applications with LEFT and RIGHT trunk slack management

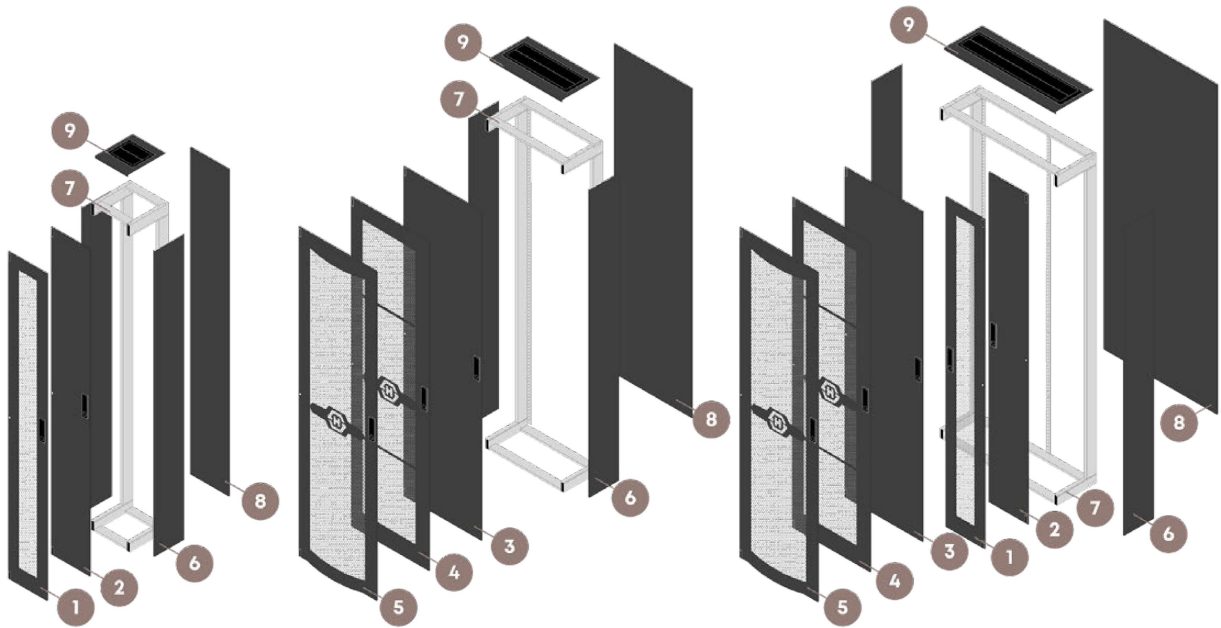
* Highlighted are popular use cases

1 Numbers show CDR frame types

CDR footprint (bottom view)



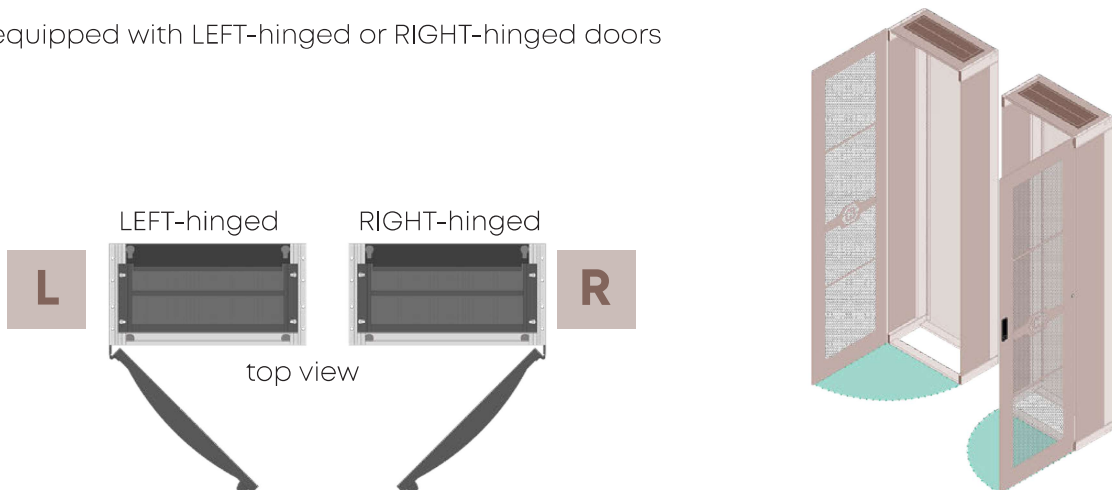
CDR main components



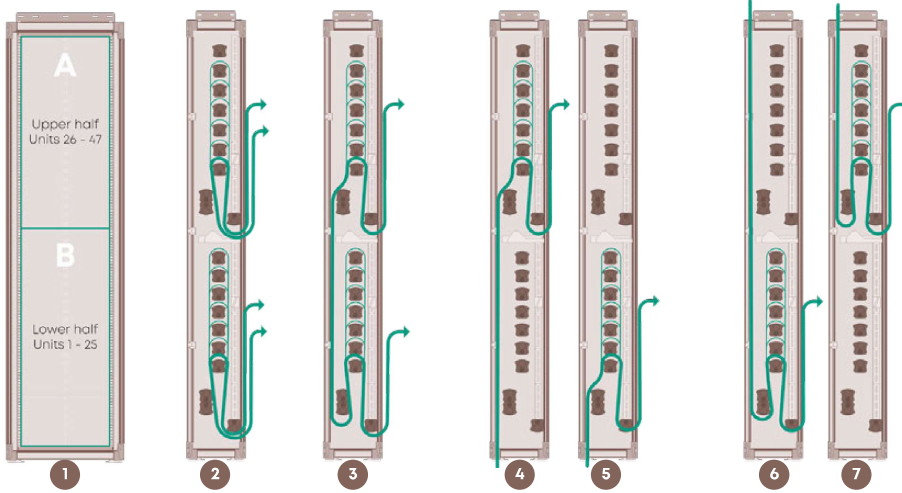
- (1) 300 mm perforated flat door
- (2) 300 mm solid flat door
- (3) 600 mm solid flat door
- (4) 600 mm perforated flat door
- (5) 600 mm perforated curved door
- (6) Side walls
- (7) C-shape frame (aluminium)
- (8) Back wall
- (9) Brush top cover

CDR door orientations

CDRs are equipped with LEFT-hinged or RIGHT-hinged doors



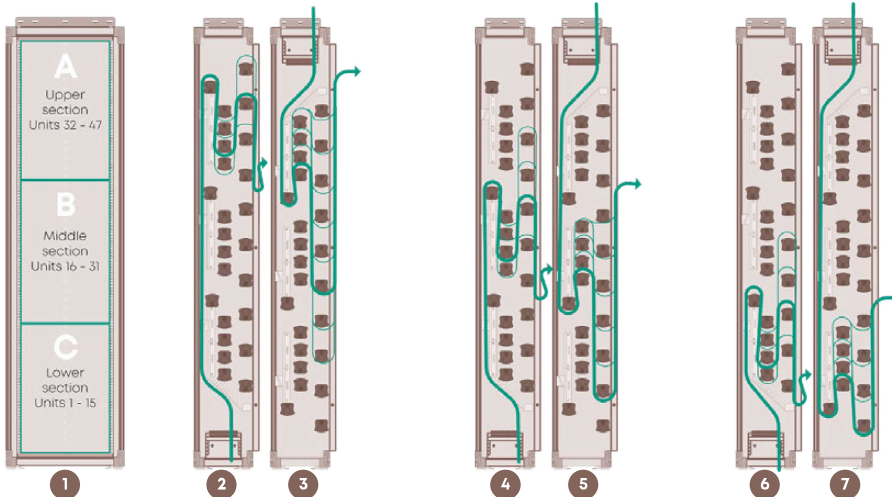
CDR patching guide - patch cord slack management



Patching lengths

- (1) Two sections - A and B
- (2) Inside A or B - **3.5 m**
- (3) From A to B - **5 m**
- (4) From A to bottom - **3.5 m**
- (5) From B to bottom - **2.5 m**
- (6) From B to top - **4.5 m**
- (7) From A to top - **2.5 m**

CDR patching guide - trunk slack management

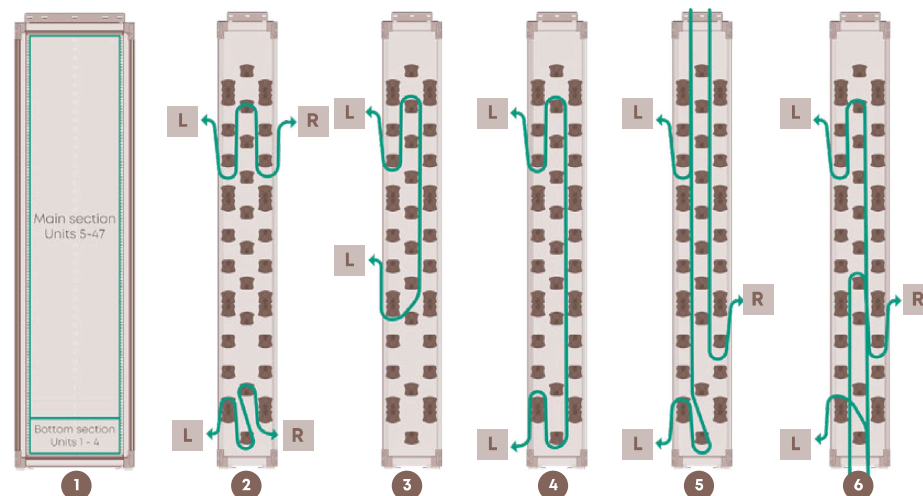


Trunk lengths*

- (1) Three sections - A, B and C
- (2) A to bottom - **3.0 m**
- (3) A to top - **2.7 m**
- (4) B to bottom - **3.0 m**
- (5) B to top - **2.7 m**
- (6) C to bottom - **3.0 m**
- (7) C to top - **2.7 m**

* provided lengths are for transition or splicing applications, in case of patching application add 0.7m for every trunk

CDR patching guide - central patch cord slack management



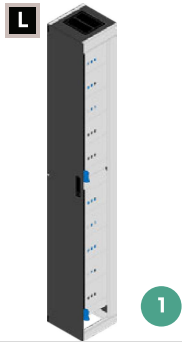
Patching lengths

- (1) Main section and bottom section
- (2) L to R - **2.5 m**
- (3) L to L or R to R, inside main section - **3.5 m**
- (4) L to L or R to R, main to bottom - **3.5 m**
- (5) Patching out top entry - **3.5 m**
- (6) Patching out bottom entry - **3.5 m**

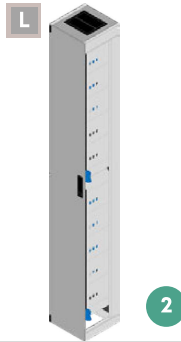
[Go to external document/link](#) 

Pre-configured CDR

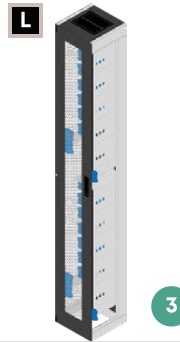
CDR 300 with left (L) patch cord management



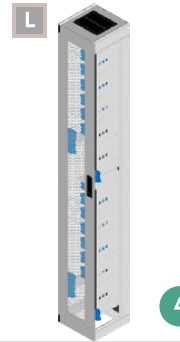
CDR03-47U-SDL0-STA-BK



CDR03-47U-SDL0-STA-GY

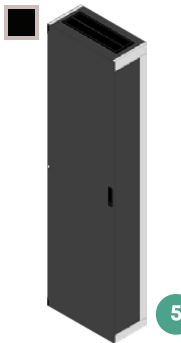


CDR03-47U-PDL0-STA-BK

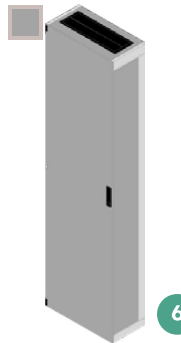


CDR03-47U-PDL0-STA-GY

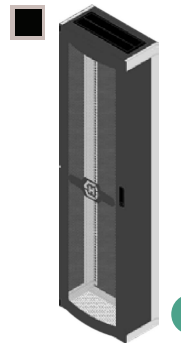
CDR 600 without patch cord management



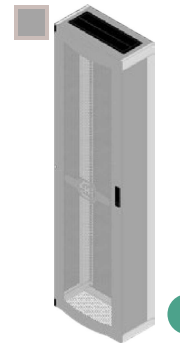
CDR06-47U-SDL0-STA-BK



CDR06-47U-SDL0-STA-GY

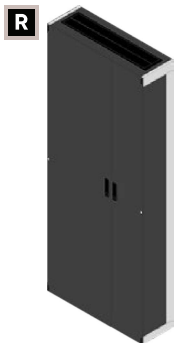


CDR06-47U-PDL0-STA-BK

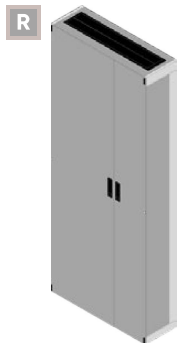


CDR06-47U-PDL0-STA-GY

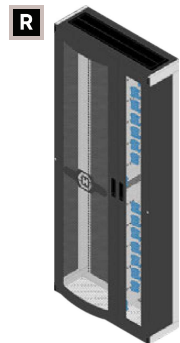
CDR 900 with integrated right (R) patch cord management



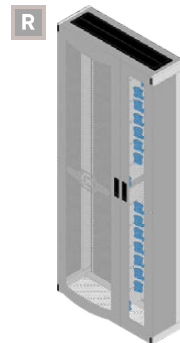
CDR09-47U-SDLR-STA-BK



CDR09-47U-SDLR-STA-GY



CDR09-47U-PDLR-STA-BK



CDR09-47U-PDLR-STA-GY

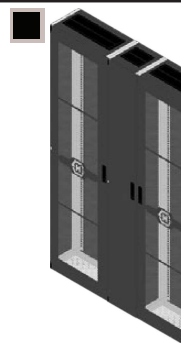
CDR 1500 with central patch cord management



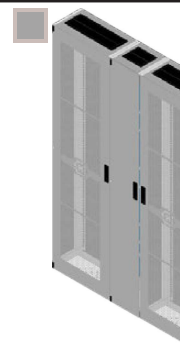
CDR15-47U-SDLR-STA-BK



CDR15-47U-SDLR-STA-GY



CDR15-47U-PFLR-STA-BK



CDR15-47U-PFLR-STA-GY

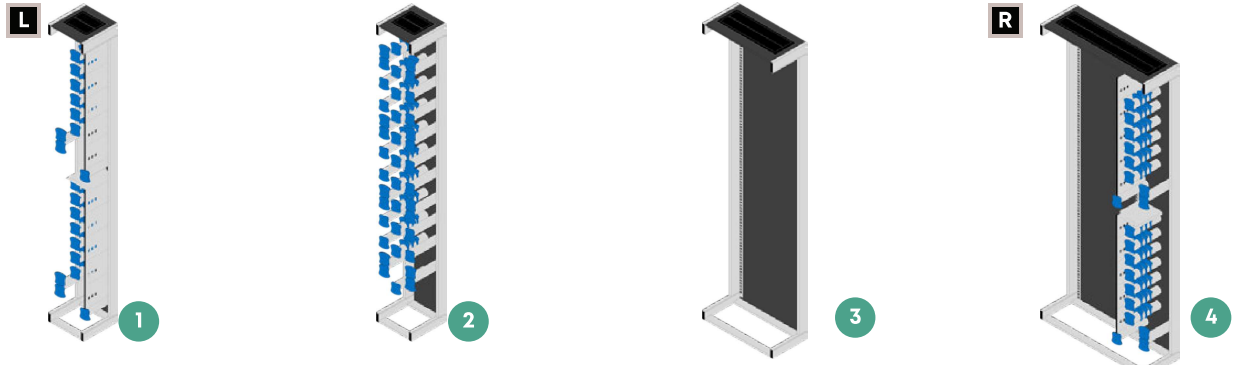
Introduction
Transceivers
Cables
Assemblies
Cable systems
ODF
Racks CDR
Patch panels
Racks NGR
Cassettes Modules
Racks Other
Accessories
Chassis LISA
Optical switches
Chassis SYLFA
Bandwidth expansion
Chassis CTS
GPSoF

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85030019	CDR03-47U-SDL0-STA-BK	Cable distribution rack 300 mm, solid door left hinged, without side panels, 47U, black		
2	on request	CDR03-47U-SDL0-STA-GY	Cable distribution rack 300 mm, solid door left hinged, without side panels, 47U, grey		
3	85029083	CDR03-47U-PDL0-STA-BK	Cable distribution rack 300 mm, perforated door left hinged, without side panels, 47U, black		
4	85029089	CDR03-47U-PDL0-STA-GY	Cable distribution rack 300 mm, perforated door left hinged, without side panels, 47U, grey		
5	on request	CDR06-47U-SDL0-STA-BK	Cable distribution rack 600 mm, solid door left hinged, 47U, black, with side panels		
6	on request	CDR06-47U-SDL0-STA-GY	Cable distribution rack 600 mm, solid door left hinged, 47U, grey, with side panels		
7	85029092	CDR06-47U-PDL0-STA-BK	Cable distribution rack 600 mm, perforated door left hinged, 47U, black, with side panels		
8	85029087	CDR06-47U-PDL0-STA-GY	Cable distribution rack 600 mm, perforated door left hinged, 47U, grey, with side panels		
9	85029090	CDR09-47U-SDLR-STA-BK	Cable distribution rack 900 mm, solid doors, 47U, black, with side panels		
10	85029086	CDR09-47U-SDLR-STA-GY	Cable distribution rack 900 mm, solid doors, 47U, grey, with side panels		
11	85029082	CDR09-47U-PDLR-STA-BK	Cable distribution rack 900 mm, perforated doors, 47U, black, with side panels		
12	85029085	CDR09-47U-PDLR-STA-GY	Cable distribution rack 900 mm, perforated doors, 47U, grey, with side panels		
13	85117874	CDR15-47U-SDLR-STA-BK	Cable distribution rack 1500 mm, LISA Double Access, 47U, black, all solid flat doors, with side panels		
14	85136758	CDR15-47U-SDLR-STA-GY	Cable distribution rack 1500 mm, LISA Double Access, 47U, grey, all solid flat doors, with side panels		
15	85109330	CDR15-47U-PFLR-STA-BK	Cable distribution rack 1500 mm, LISA Double Access, 47U, black, perforated and solid doors, with side panels		
16	on request	CDR15-47U-PFLR-STA-GY	Cable distribution rack 1500 mm, LISA Double Access, 47U, grey, perforated and solid doors, with side panels		

Custom CDR

CDR frames

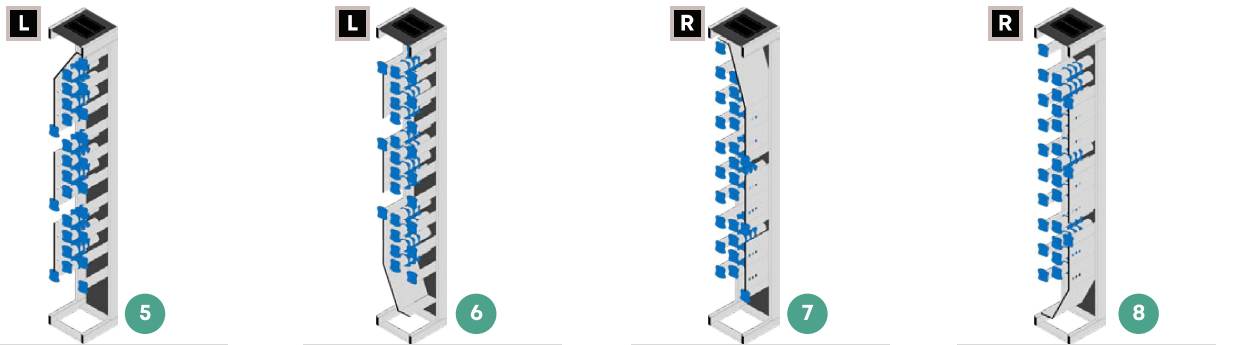


CDR03-47U-0000-STA-BK

CDR03-47U-BK-0000-PCE

CDR06-47U-BK-0000-STA

CDR09-47U-0000-STA-BK



CDR03-47U-BK-0000-TLE-TE

CDR03-47U-BK-0000-TLE-BE

CDR03-47U-BK-0000-TRI-TE

CDR03-47U-BK-0000-TRI-BE

Ordering information

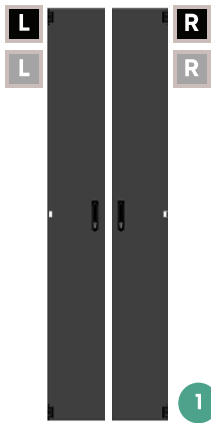
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1	85119208	CDR03-47U-0000-STA-BK	CDR3 300mm 47U frame patch left (L), without doors, no side panels, black	<input type="checkbox"/>	
2	on request	CDR03-47U-BK-0000-PCE	CDR3 300mm 47U frame patch center (C), without doors, no side panels, black	<input type="checkbox"/>	
3	on request	CDR06-47U-BK-0000-STA	CDR6 600mm 47U frame without doors, no side panels, black	<input type="checkbox"/>	
4	85085431	CDR09-47U-0000-STA-BK	CDR9 900mm 47U frame without doors, no side panels, black	<input checked="" type="checkbox"/>	
5	on request	CDR03-47U-BK-0000-TLE-TE	CDR3 300mm 47U frame trunk left (L) top entry, without doors, no side panels, black	<input type="checkbox"/>	
6	on request	CDR03-47U-BK-0000-TLE-BE	CDR3 300mm 47U frame trunk left (L) bottom entry, without doors, no side panels, black	<input type="checkbox"/>	
7	on request	CDR03-47U-BK-0000-TRI-TE	CDR3 300mm 47U frame trunk right (R) top entry, without doors, no side panels, black	<input type="checkbox"/>	
8	on request	CDR03-47U-BK-0000-TRI-BE	CDR3 300mm 47U frame trunk right (R) bottom entry, without doors, no side panels, black	<input type="checkbox"/>	
9	85029105	CDR-47U-SIDE-PAN-BK	CDR side panel 47U, black	<input checked="" type="checkbox"/>	↗
	on request	CDR-47U-SIDE-PAN-GY	CDR side panel 47U, grey	<input type="checkbox"/>	

CDR doors

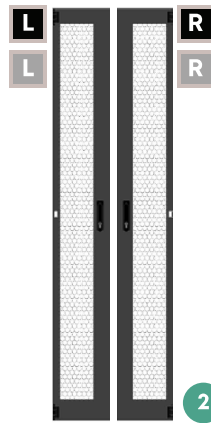


300 mm

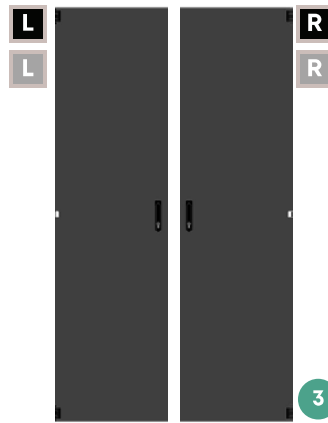
600mm



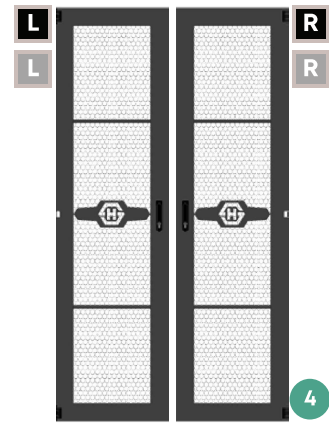
CDR3-47U-SOLID-DR-xH-BK
CDR3-47U-SOLID-DR-xH-BK



CDR3-47U-PERF-DR-xH-BK
CDR3-47U-PERF-DR-xH-BK



CDR6-47U-SOLID-DR-xH-BK
CDR6-47U-SOLID-DR-xH-BK



CDR6-47U-PERF-DR-xH-BK
CDR6-47U-PERF-DR-xH-BK

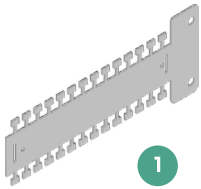
Ordering information

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1	85120632	CDR3-47U-SOLID-DR-LH-BK	CDR solid flat door, hinged left, 300 mm wide, 47U, black		
	85120633	CDR3-47U-SOLID-DR-LH-GY	CDR solid flat door, hinged left, 300 mm wide, 47U, grey		
	85029103	CDR3-47U-SOLID-DR-RH-BK	CDR solid flat door, hinged right, 300 mm wide, 47U, black		
	on request	CDR3-47U-SOLID-DR-RH-GY	CDR solid flat door, hinged right, 300 mm wide, 47U, grey		
2	85120630	CDR3-47U-PERF-DR-LH-BK	CDR perforated flat door, hinged left, 300 mm wide, 47U, black		
	85120631	CDR3-47U-PERF-DR-LH-GY	CDR perforated flat door, hinged left, 300 mm wide, 47U, grey		
	85029100	CDR3-47U-PERF-DR-RH-BK	CDR perforated flat door, hinged right, 300 mm wide, 47U, black	<input checked="" type="checkbox"/>	
	on request	CDR3-47U-PERF-DR-RH-GY	CDR perforated flat door, hinged right, 300 mm wide, 47U, grey		
3	85029101	CDR6-47U-SOLID-DR-LH-BK	CDR solid flat door, hinged left, 600 mm wide, 47U, black	<input checked="" type="checkbox"/>	
	on request	CDR6-47U-SOLID-DR-LH-GY	CDR solid flat door, hinged left, 600 mm wide, 47U, grey		
	on request	CDR6-47U-SOLID-DR-RH-BK	CDR solid flat door, hinged right, 600 mm wide, 47U, black		
	on request	CDR6-47U-SOLID-DR-RH-GY	CDR solid flat door, hinged right, 600 mm wide, 47U, grey		
4	85029099	CDR6-47U-PERF-DR-LH-BK	CDR perforated curved door, hinged left, 600 mm wide, 47U, black	<input checked="" type="checkbox"/>	
	on request	CDR6-47U-PERF-DR-LH-GY	CDR perforated curved door, hinged left, 600 mm wide, 47U, grey		
	on request	CDR6-47U-PERF-DR-RH-GY	CDR perforated curved door, hinged right, 600 mm wide, 47U, black		
	on request	CDR6-47U-PERF-DR-RH-BK	CDR perforated curved door, hinged right, 600 mm wide, 47U, grey		

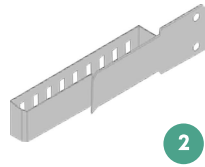
CDR accessories

CDR frame integrated accessories

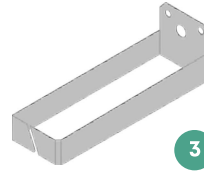
Mounted in pre-configured and custom CDR but can be ordered separately if necessary



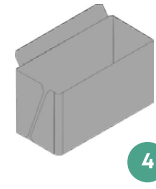
CDR-CONDUIT-TIE-PLT-SR



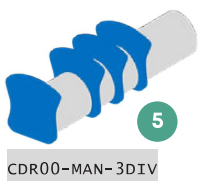
CDR-VERT-CABLE-BRKT-XX



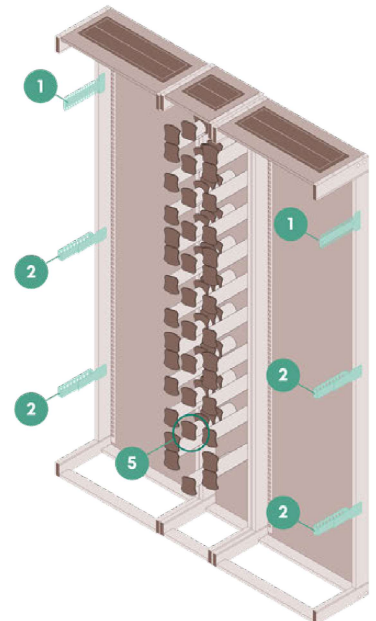
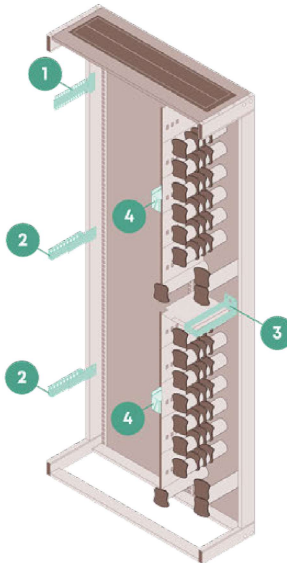
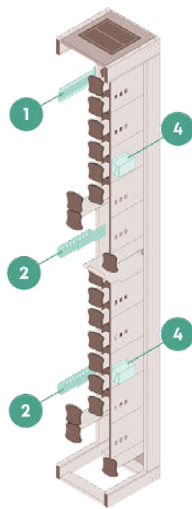
CDR-PATCH-MAN-BRKT-SR



CDR-PATCH-SEP-BRKT-SR



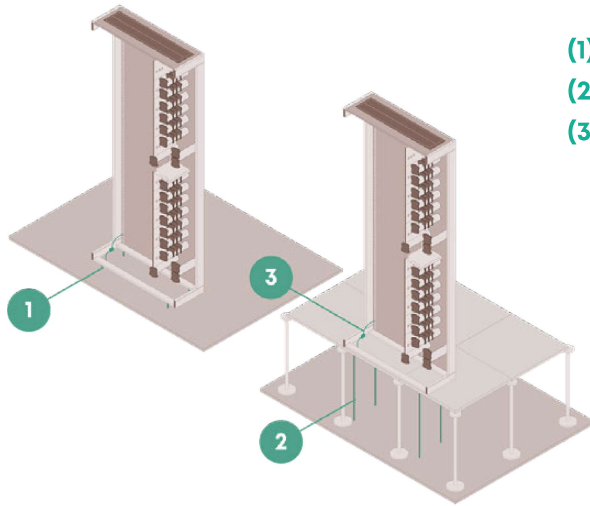
CDR00-MAN-3DIV



Ordering information

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1	85021672	CDR-CONDUIT-TIE-PLT-SR	CDR conduit tie plate, silver	
2	85021673	CDR-VERT-CABLE-BRKT-BK	CDR vertical cable bracket, small, black	
3	85029919	CDR-PATCH-MAN-BRKT-SR	CDR patch cord guiding bracket for patch cord management plate, small, silver	
4	85029918	CDR-PATCH-SEP-BRKT-SR	CDR hook-in patch cord guiding bracket for vertical divide plate, small, silver (white aluminium)	
5	85029681	CDR00-MAN-3DIV	Front mountable mandrel assembly with 3 divider plates and endplate, incl. mounting material, length 225 mm	

CDR other accessories



- (1) Fastening kit for concrete floor
- (2) Fastening kit for raised floor
- (3) Earthing kit (is part of standard delivery)


Ordering information

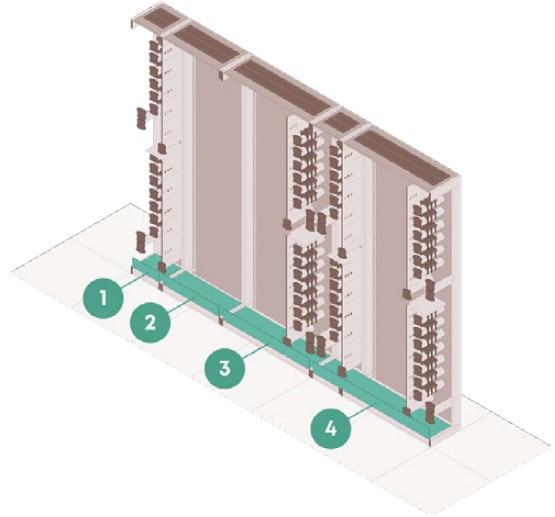
#	Item number	Descriptive code	Item text	LT
1	85038724	ODR-FFK-SF-1	CDR solid/ concrete floor fixing kit (4 per kit), incl. anchors, nuts and washers	<input checked="" type="checkbox"/>
2	85029106	CDR00-FFK-RF-1	CDR raised floor fixing kit (4 per kit), incl. anchors, threaded-rod, nuts and washers	<input type="checkbox"/>
3	85068485	CDR00-EART-KIT	CDR grounding/ earthing Kit	<input type="checkbox"/>

CDR routing channel

Routing channel adds the possibility to patch between side-to-side or back-to-back racks

- (1) For CDR 300
- (2) For CDR 600
- (3) For CDR 900
- (4) For CDR 1200 (900+300)

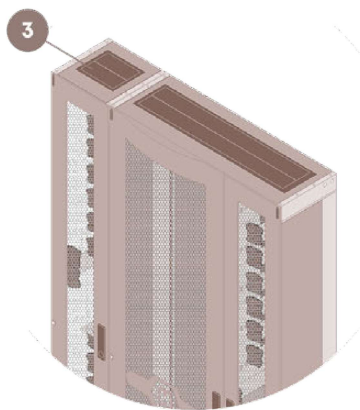
Routing channel for CDR 1500 shown in NGR accessories 



Ordering information

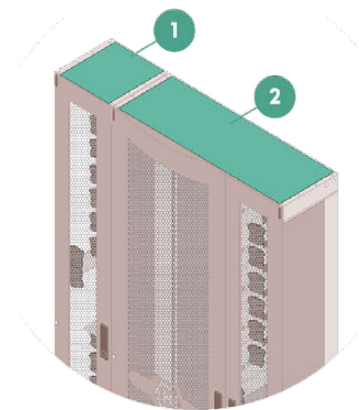
#	Item number	Descriptive code	Item text	LT	URL
1	85029837	CDR03-ROUT-CHAN-SR	CDR 300 mm 2U routing channel, silver (white aluminium)		
2	85113147	CDR06-ROUT-CHAN-SR	CDR 600 mm 2U routing channel with adjustable rear opening, silver (white aluminium)	<input checked="" type="checkbox"/>	
3	85029682	CDR09-ROUT-CHAN-SR	CDR 900 mm 2U patch cord routing channel with adjustable rear opening, silver (white aluminium)		
4	85096557	CDR12-ROUT-CHAN-SR	CDR 1200 mm 2U patch cord routing channel with adjustable rear opening, silver (white aluminium)	<input checked="" type="checkbox"/>	

CDR top cover



Replaces the integrated brush top cover with a solid steel cover

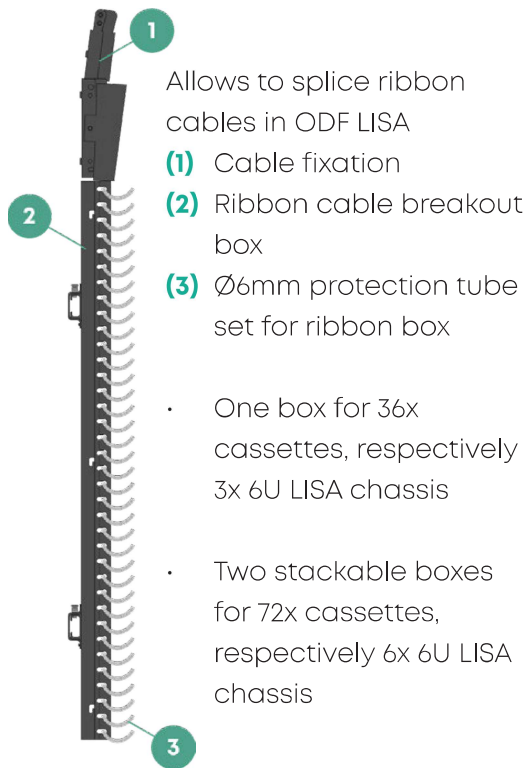
- (1) For CDR 300
- (2) For CDR 900
- (3) Brush top



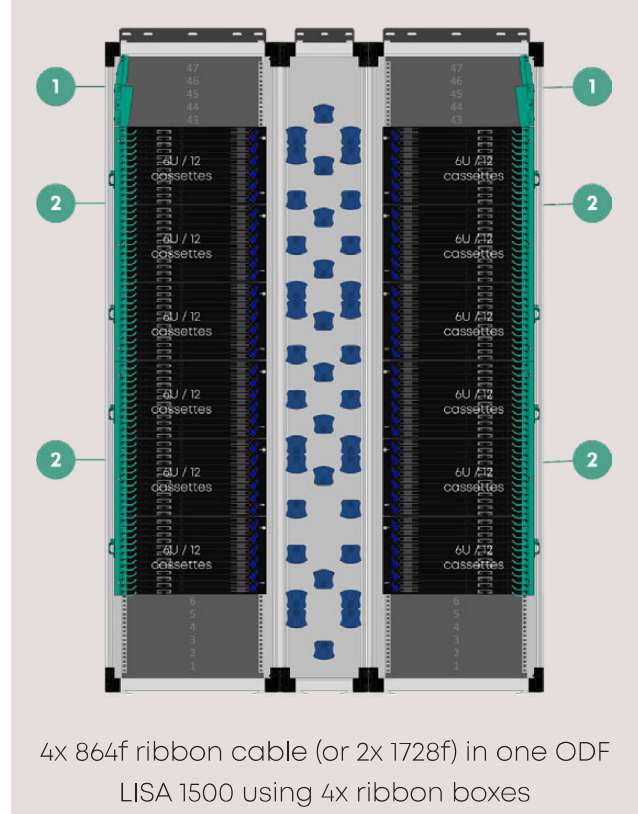
Ordering information

#	Item number	Descriptive code	Item text	LT
1	85072627	CDR03-COVR-PLAT-SR	CDR 300 top cover plate, silver, incl. mounting material	<input checked="" type="checkbox"/>
2	85072626	CDR09-COVR-PLAT-SR	CDR 900 top cover plate, silver, incl. mounting material	<input checked="" type="checkbox"/>

Ribbon breakout box - for CDR



Example of ODF LISA 1500 ribbon splice






Ordering information

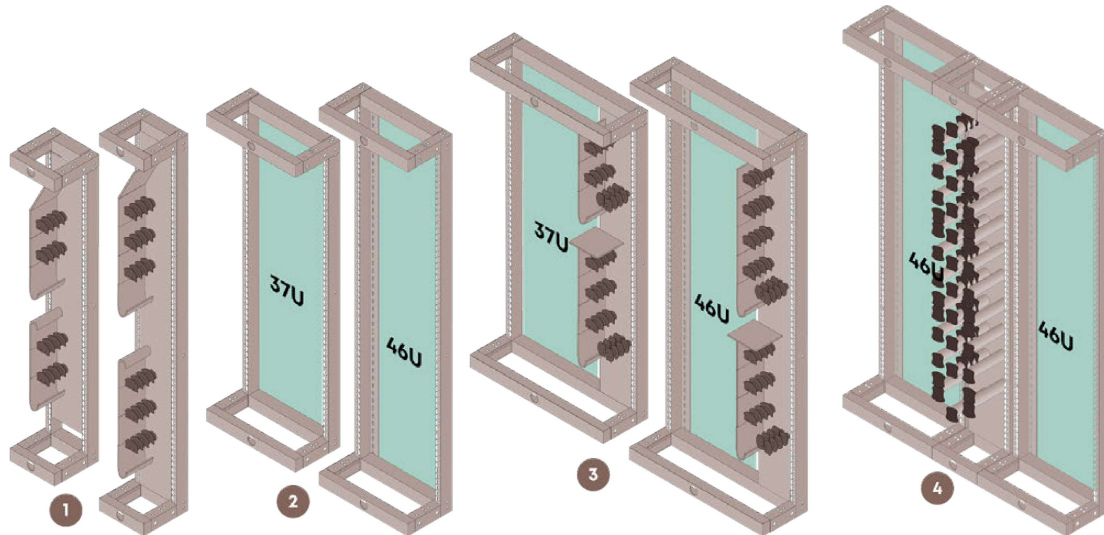
#	Item number	Descriptive code	Item text	LT
1	85128728	RIBBON-BOX-CAB-FIX-BK	LISA ribbon breakout cable fixation box, up to 2x ribbon cables with diameter Ø20 - Ø32 mm, black	<input checked="" type="checkbox"/>
2	85128729	RIBBON-BOX-CAB-B/OUT-BK	LISA ribbon breakout conduit fixation box, up to 36x 6mm conduits, black	<input checked="" type="checkbox"/>
3	85139048	OFPT-6.35-4.2-PP-WHT	Cable conduit for LISA ribbon breakout box, diameter Ø6 mm, 36x 530 mm conduits, white	<input type="checkbox"/>

NGR overview

NGR selection guide

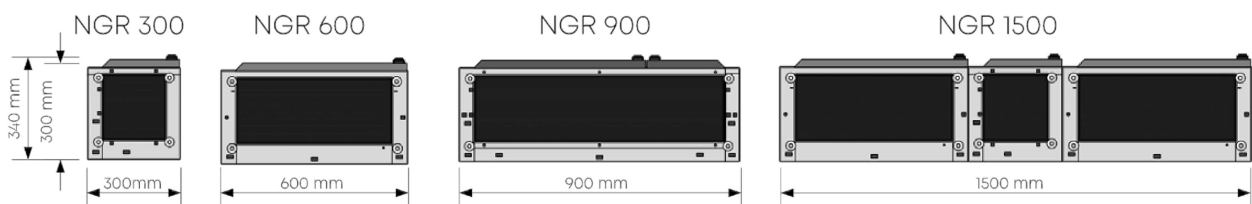
Step 1	Rack	Pre-configured NGR  Pre-defined NGR for standard applications
		Custom NGR  NGR for standard applications configured with the order code
		Application specific NGR  Pre-defined NGR for custom applications
Step 2	Accessories Add accessories required by use case	

NGR frames for standard applications

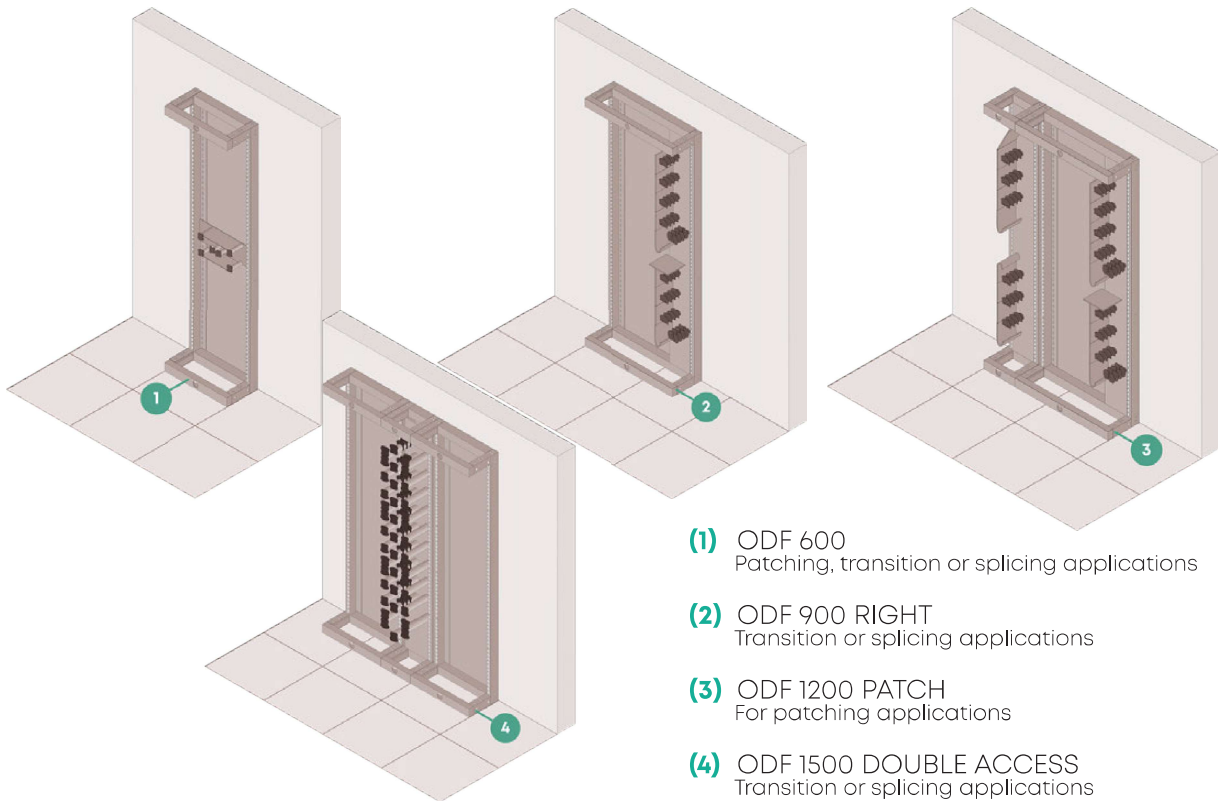


- (1) **NGR 300 patch cord /trunk management**
Stacked to NGR 600 to create ODF 900 LEFT or to NGR 900 to create ODF 1200 PATCH
- (2) **NGR 600**
Standalone single 37U or 46U mounting space or in combination with other NGR
- (3) **NGR 900**
Single 37U or 46U mounting space and integrated RIGHT patch cord management
- (4) **NGR 1500**
Two 46U mounting spaces with central patch cord management

NGR footprint (bottom view)

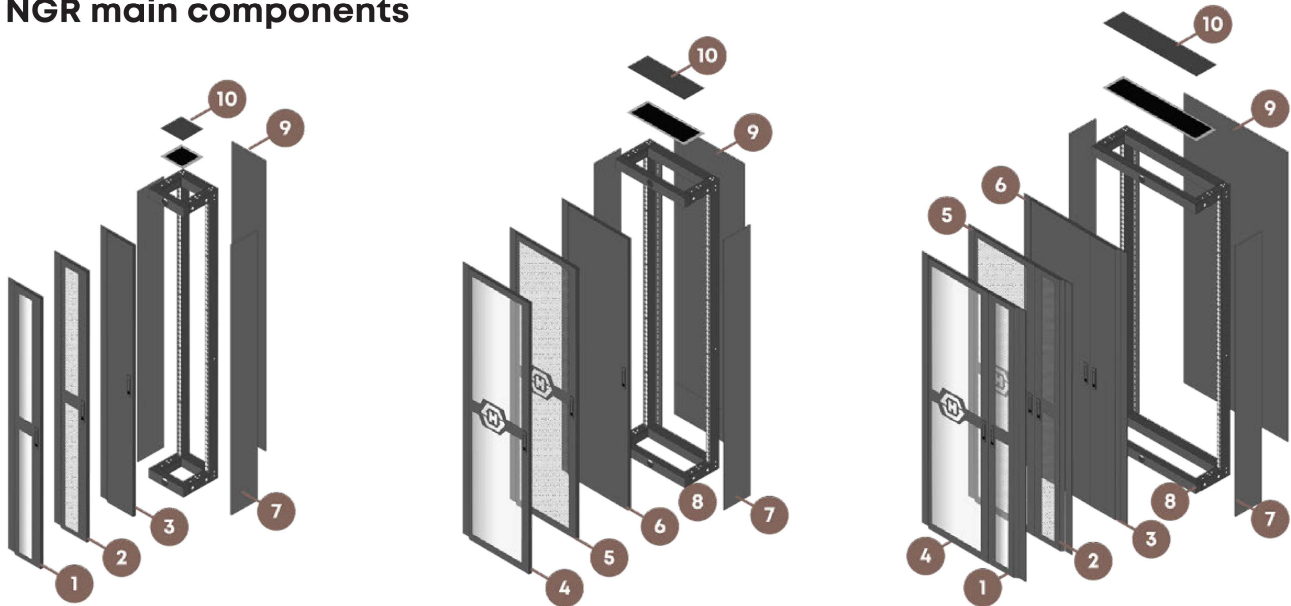


NGR standard applications



- (1) ODF 600
Patching, transition or splicing applications
- (2) ODF 900 RIGHT
Transition or splicing applications
- (3) ODF 1200 PATCH
For patching applications
- (4) ODF 1500 DOUBLE ACCESS
Transition or splicing applications

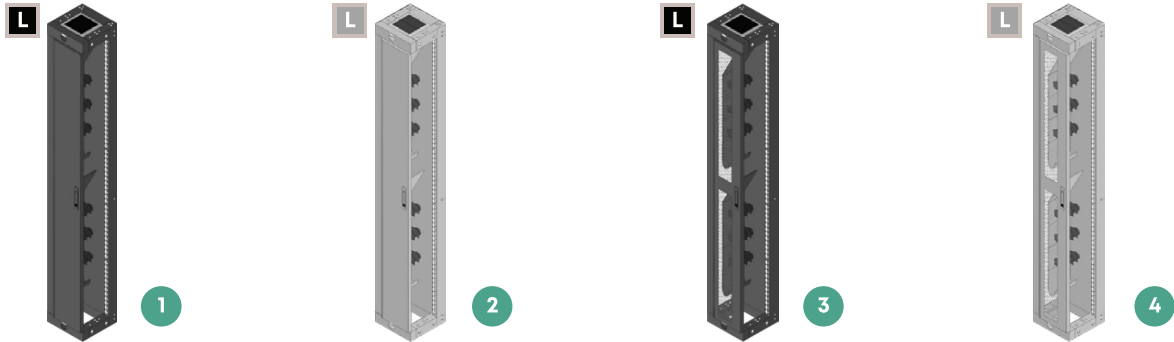
NGR main components



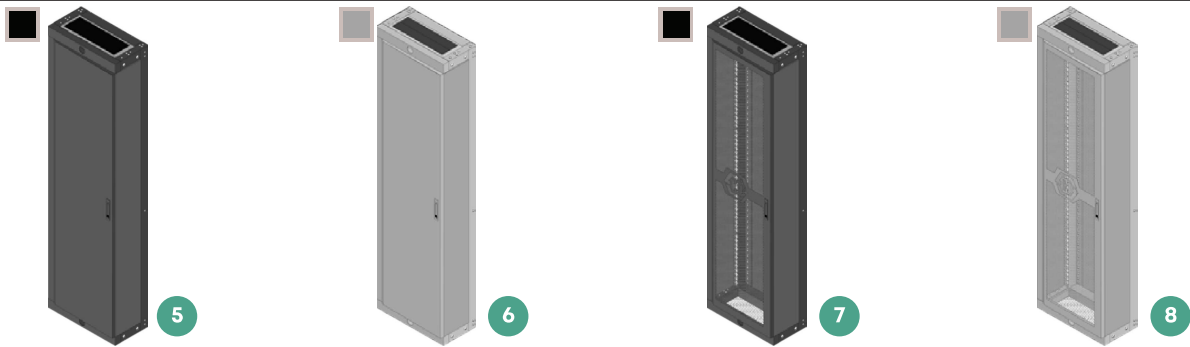
- (1) 300 mm safety-glass flat door (on request)
- (2) 300 mm perforated flat door
- (3) 300 mm solid flat door
- (4) 600 mm safety-glass flat door (on request)
- (5) 600 mm perforated flat door
- (6) 600 mm solid flat door
- (7) Side walls
- (8) C-shape frame (steel)
- (9) Back wall
- (10) Brush or solid top cover

Pre-configured NGR

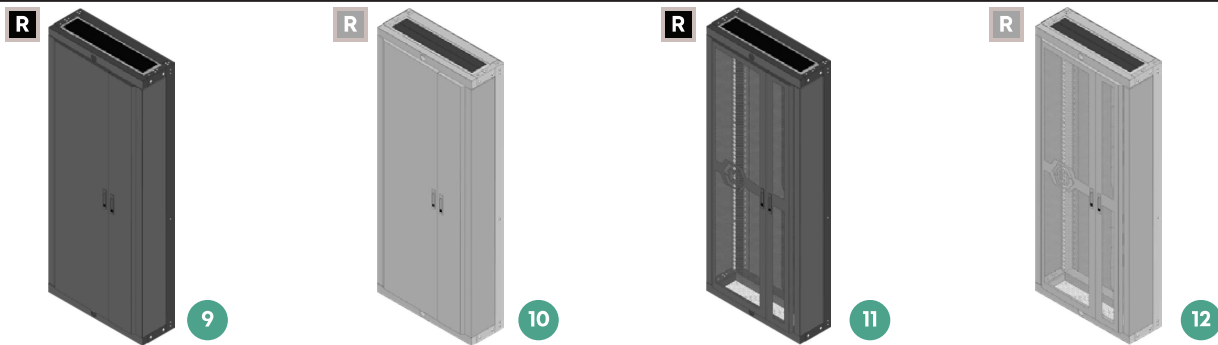
NGR 300 with left (L) patch cord management



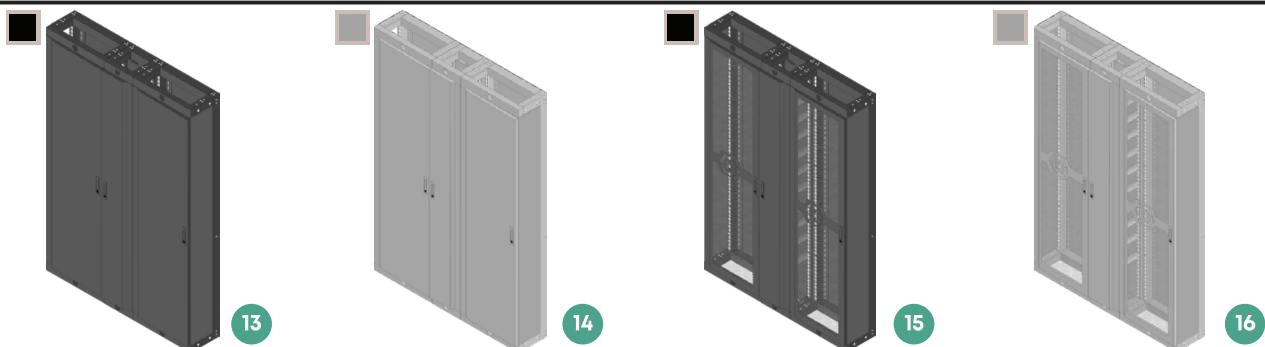
NGR 600 without patch cord management



NGR 900 with integrated right(R) patch cord management



NGR 1500 with central patch cord management



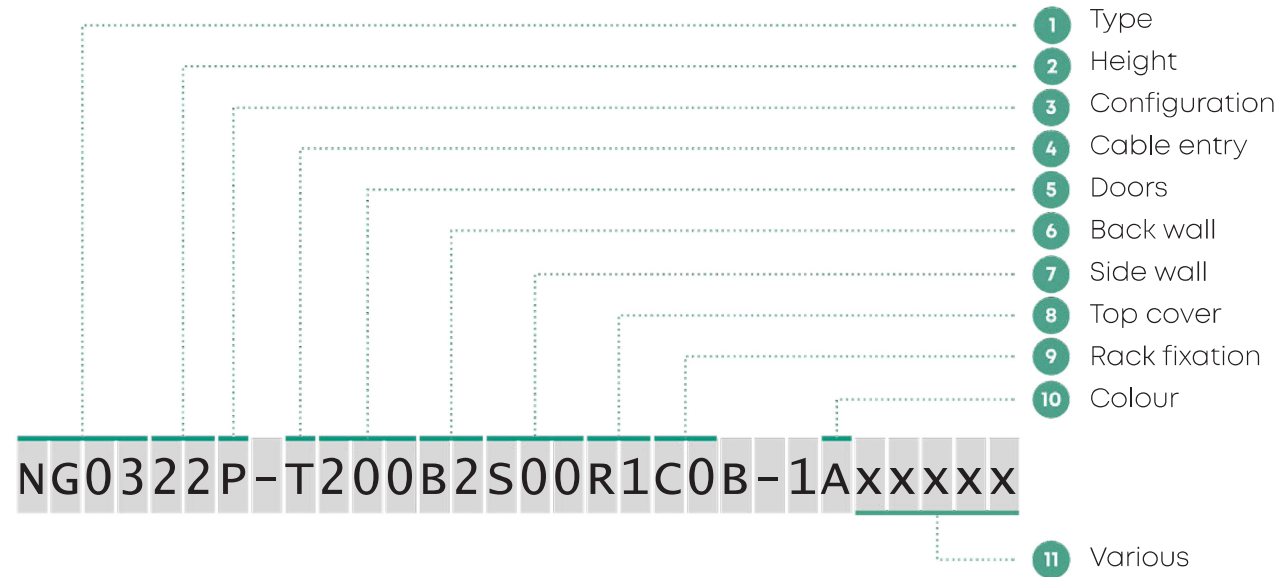
Introduction
Transceivers
Cables
Assemblies
Cable systems
ODF Racks CDR
Patch panels Racks NGR
Cassettes Modules Racks Other
Accessories Chassis LISA
Optical switches Chassis SYLFA
Bandwidth expansion Chassis CTS
GPSoF

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	on request	NG0322P-U200BIS00RIC1B-IBOO00A	Next generation rack 300 mm, solid door with key lock, black, without side panels,for LEFT patch/trunk cable management		
2	on request	NG0322P-U200BIS00RIC1B-IAOO00A	Next generation rack 300 mm, solid door with key lock, grey, without side panels,for LEFT patch/trunk cable management		
3	on request	NG0322P-U800BIS00RIC1B-IBOO00A	Next generation rack 300 mm, perforated door with key lock, black, without side panels, for LEFT patch/trunk cable management		
4	on request	NG0322P-U800BIS00RIC1B-IAOO00A	Next generation rack 300 mm, perforated door with key lock, grey, without side panels, for LEFT patch/trunk cable management		
5	on request	NG0622S-U020BIS11RIC1B-IBOO00A	Next generation rack 600 mm, solid door with key lock, black, with side panels, 46U		
6	on request	NG0622S-U020BIS11RIC1B-IAOO00A	Next generation rack 600 mm, solid door with key lock, grey, with side panels, 46U		
7	on request	NG0622S-U080BIS11R110B-IBOO00A	Next generation rack 600 mm, perforated door with key lock, black, with side panels, 46U		
8	on request	NG0622S-U080BIS11RIC1B-IAOO00A	Next generation rack 600 mm, perforated door with key lock, grey, with side panels, 46U		
9	on request	NG0922S-U022BIS11RIC1B-IBOO00A	Next generation rack 900 mm, solid door with key lock, black, with side panels, 46U, with RIGHT patch cord management		
10	on request	NG0922S-U022BIS11RIC1B-IAOO00A	Next generation rack 900 mm, solid door with key lock, grey, with side panels, 46U, with RIGHT patch cord management		
11	on request	NG0922S-U088BIS11RIC1B-IBOO00A	Next generation rack 900 mm, perforated door with key lock, black, with side panels, 46U, with RIGHT patch cord management		
12	on request	NG0922S-U088BIS11RIC1B-IAOO00A	Next generation rack 900 mm, perforated door with key lock, grey, with side panels, 46U, with RIGHT patch cord management		
13	85144055	NG1522NS-Q222BIS11RIC1B-IBA00A	Next generation rack 1500 mm, solid door with key lock, black, with side panels, 2x 46U, with central patch cord management		
14	85141280	NG1522NS-Q222BIS11RIC1B-IAA00A	Next generation rack 1500 mm, solid door with key lock, grey, with side panels, 2x 46U, with central patch cord management		
15	85144056	NG1522NS-Q828BIS11RIC1B-IBA00A	Next generation rack 1500 mm, perforated door with key lock, black, with side panels, 2x 46U, with central patch cord management		
16	85144052	NG1522NS-Q828BIS11RIC1B-IAA00A	Next generation rack 1500 mm, perforated door with key lock, grey, with side panels, 2x 46U, with central patch cord management		

Custom NGR

Order code NGR



1 Rack type

- NG03** NGR 300 mm
- NG06** NGR 600 mm
- NG09** NGR 900 mm

2 Rack height

- 18** NGR 1800 mm, 37U
- 22** NGR 2200 mm, 46U

3 Configuration

- P** for NG03 : trunk / patch cord management
- S** for NG06 and NG09: standard configuration

4 Cable entry

- T** top cable entry
 - U** bottom cable entry
- NGR's mandrel positioning will be slightly different, see examples

5 Doors configuration

- 000** no doors equipped
- xxx** see door selection options

6 Back wall

- B0** no back wall
- B1** back wall full height
- B2** back wall 4U shortened (for back to back patching)

7 Side wall

- S00** no side walls
- S10** Only one side wall included
- S11** Both side walls (left + right) included



8 Top cover

- R0** no top cover
- R1** top cover with brushes
- R2** solid top cover

9 Rack fixation

- C0** no rack fixation kit included
- C1** wall fixation kit
- C2** ceiling fixation kit, 1000 mm
- C3** ceiling fixation kit, 1000 mm + wall fixation kit
- C4** concrete floor fixation kit
- C5** raised floor fixation kit

10 Colour

- A** grey colour 
- B** black colour 

11 Various assembly options

- xxxxxx** The rack can be additionally pre-equipped with accessories, such as breakout plates, chassis or protection tubes.
- oo00A** Add this in the end of the order code for a rack without any pre-equipped accessories

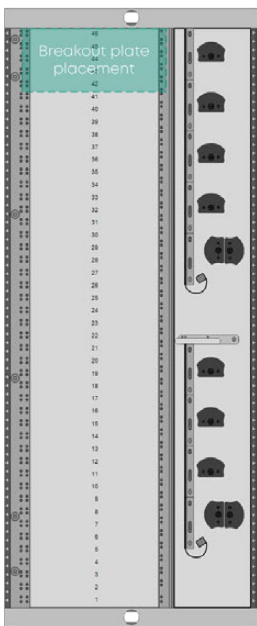
NGR door selection options

	NGR 300 mm		NGR 600 mm		NGR 900 mm	
no lock ¹	100	700	010	070	011	077
with lock	200	800	020	080	022	088

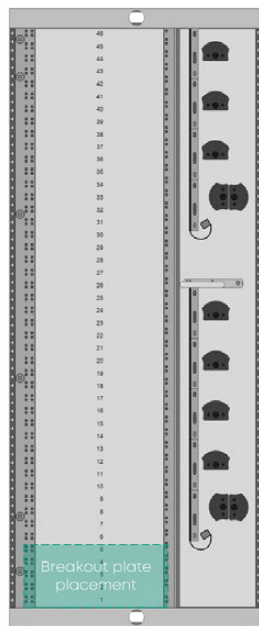
¹ It is possible to upgrade the door with lock at later stage

Cable entry variants

T Top entry

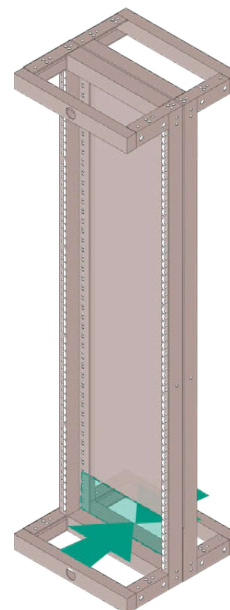


U Bottom entry



Back wall options

Shortened back wall allows to patch between rack placed back to back

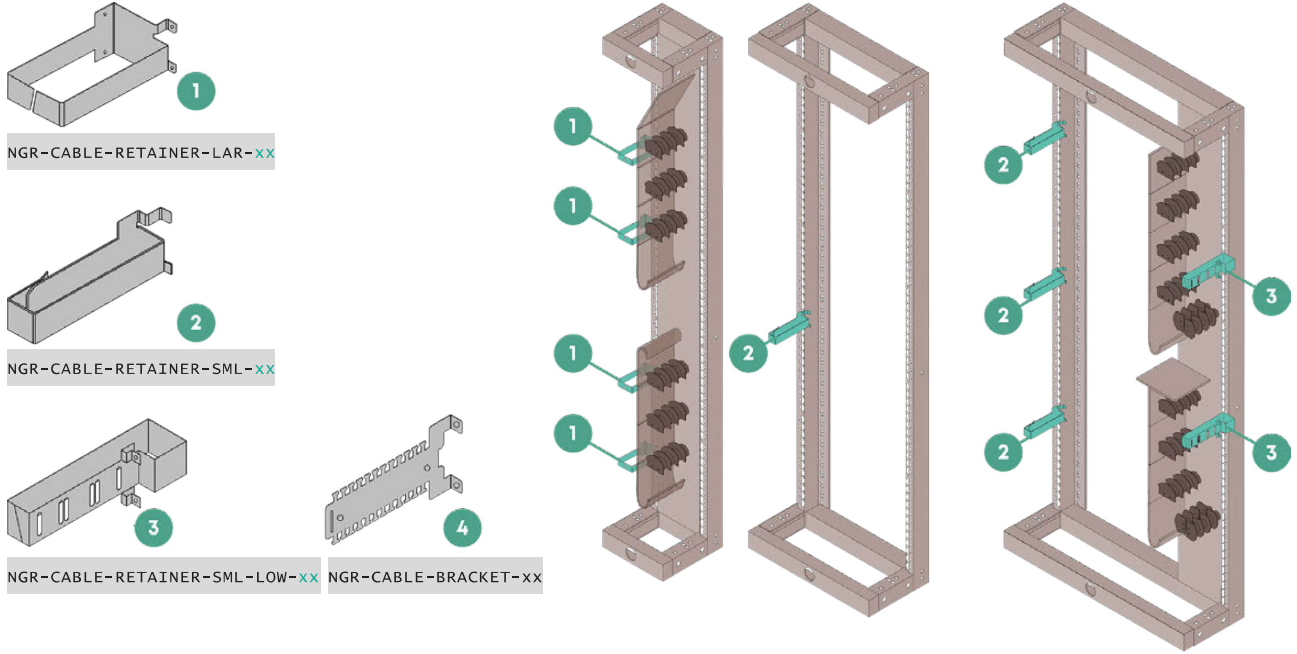


NGR accessories



NGR cable management accessories

Some accessories are mounted in pre-configured or custom NGR but can be ordered separately if necessary



Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	84076531	NGR-CABLE-RETAINER-LAR-BK	NGR retainer for cables, large, black		
	84071882	NGR-CABLE-RETAINER-LAR-GY	NGR retainer for cables, large, grey		
2	84076535	NGR-CABLE-RETAINER-SML-BK	NGR retainer for patch cords, small black		
	84068200	NGR-CABLE-RETAINER-SML-GY	NGR retainer for patch cords, small, grey		
3	84084432	NGR-CABLE-RETAINER-SML-LOW-BK	NGR retainer for patch cords, small, with front access, black		
	84073696	NGR-CABLE-RETAINER-SML-LOW-GY	NGR retainer for patch cords, small, with frontal access, grey		
4	84076534	NGR-CABLE-BRACKET-BK	NGR cable tie or velcro bracket, black		
	84068201	NGR-CABLE-BRACKET-GY	NGR cable tie or velcro bracket, grey		

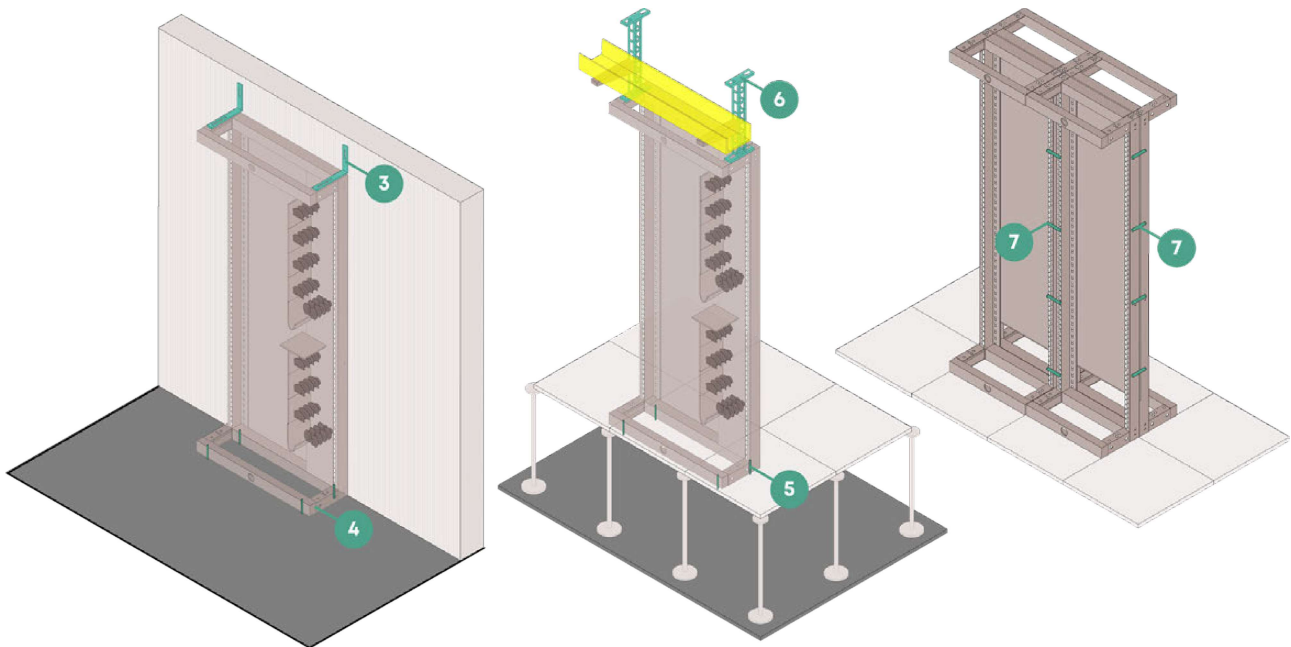
NGR door accessories



NGR-LOCK-BACKFITTING-EK333 1

NGR-SPARE-KEY-EK333 2

NGR fixing accessories



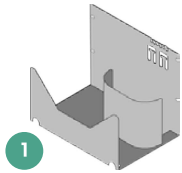
Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	84085188	NGR-LOCK-BACKFITTING-EK333	NGR door locking upgrade with 1 key, black		
2	84085514	NGR-SPARE-KEY-EK333	NGR door spare key		
3	84071885	NGR-WALL-FIXATION-KIT	NGR wall fixing kit		
4	84081125	NGR-RAISED-FLOOR-FIXING-KIT	NGR raised floor fixing kit, includes screws, washers and nuts to mount to the floor tile		
5	84091849	NGR-CONCRETE-KIT_4-P	NGR concrete floor fixing kit, includes anchors, nuts and washers		
6	84069172	NGR-CEILING-FIXATION-KIT-1000	NGR ceiling fixing kit, maximum height till ceiling 1m		
7	84076448	NGR-BAYING-KIT	Set of screws, washers and nuts to fasten NGR in side-by-side or back-to-back configuration		

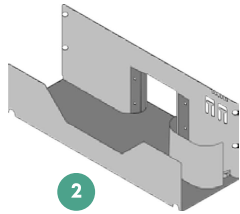
NGR routing channels



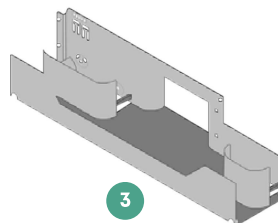
NGR 300-900 mm, **37U**, 1800 mm, 5U



NGR3-PC-ROUTING-CHAN-5U-XX



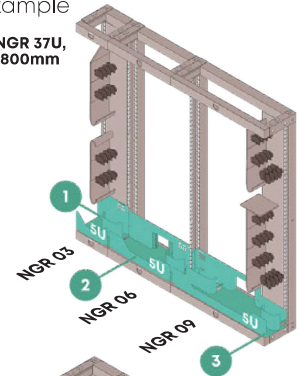
NGR6-PC-ROUTING-CHAN-5U-XX



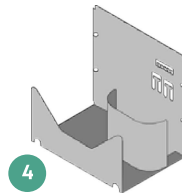
NGR9-PC-ROUTING-CHAN-5U-XX

Example

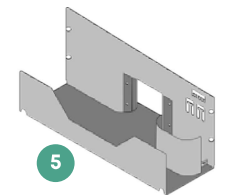
NGR 37U,
1800mm



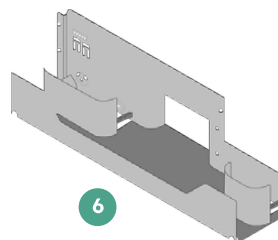
NGR 300-900 mm, **46U**, 2200 mm, 6U



NGR3-PC-ROUTING-CHAN-6U-XX

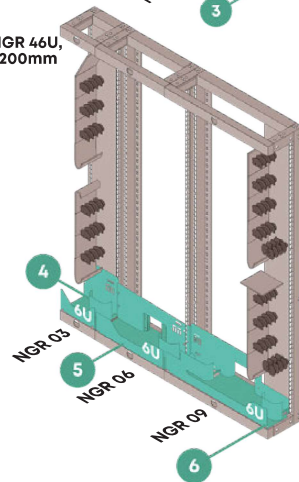


NGR6-PC-ROUTING-CHAN-6U-XX

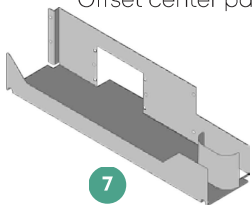


NGR9-PC-ROUTING-CHAN-6U-XX

NGR 46U,
2200mm

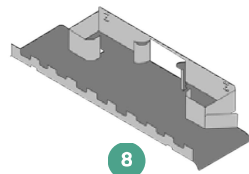


NGR 1200 mm,
46U, 2200 mm, 6U
Offset center pass

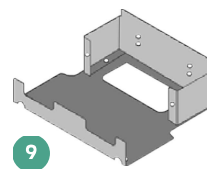


NGR9-ROUT-CHAN-6U-FOR-1200-XX

NGR 1500 mm,
46U, 2200 mm, 2U
Suitable for CDR 1500

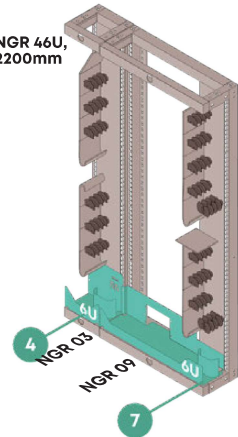


NGR15-ROUT-CHAN-DA-2U-XX

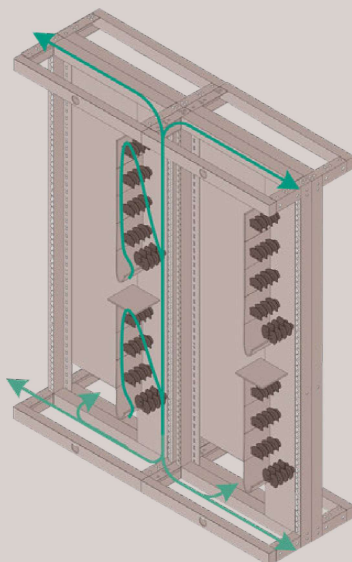


NGR3-ROUT-CHAN-DA-2U-XX

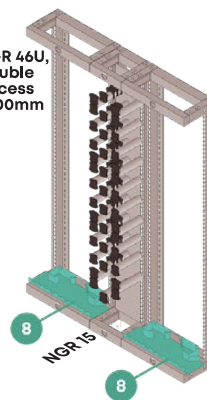
NGR 46U,
2200mm



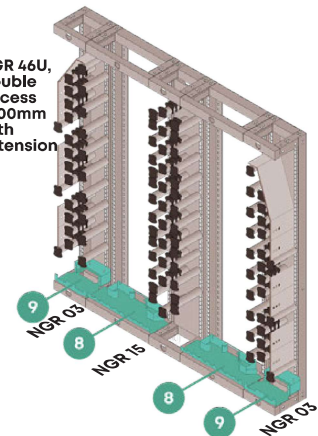
NGR - patching directions













NGR 46U,
Double access
2200mm



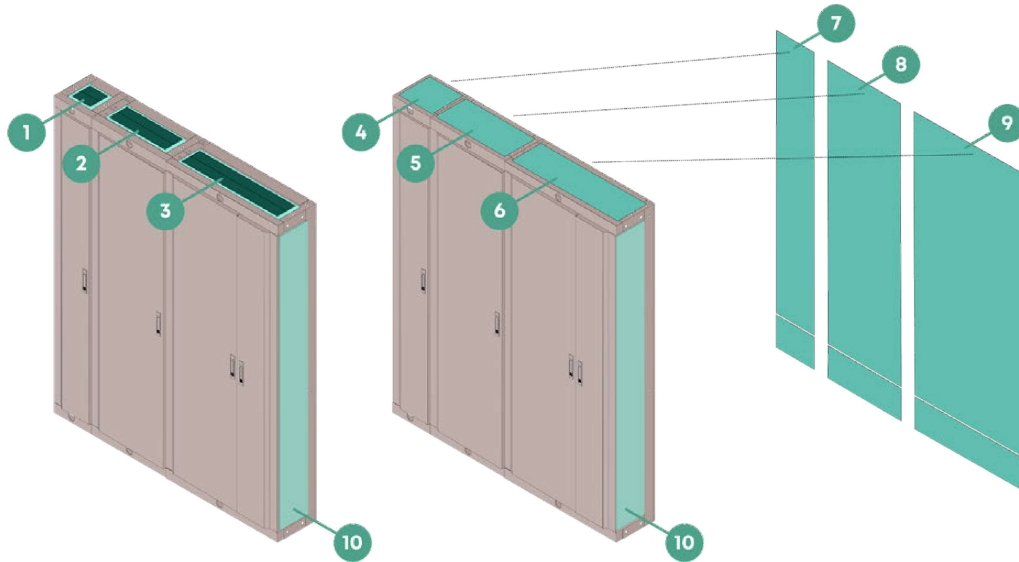
NGR 46U,
Double access
2200mm
with extension



Ordering information

#	Item number	Descriptive code	Item text	LT
1	84077067	NGR3-PC-ROUTING-CHAN-5U-BK	NGR patch cord routing channel 300, 5U, for 1800 mm/37U racks, black	
	84077066	NGR3-PC-ROUTING-CHAN-5U-GY	NGR patch cord routing channel 300, 5U, for 1800 mm/37U racks, grey	
2	84077065	NGR6-PC-ROUTING-CHAN-5U-BK	NGR patch cord routing channel 600, 5U, for 1800 mm/37U racks, black	
	84077064	NGR6-PC-ROUTING-CHAN-5U-GY	NGR patch cord routing channel 600, 5U, for 1800 mm/37U racks, grey	
3	84077062	NGR9-PC-ROUTING-CHAN-5U-BK	NGR patch cord routing channel 900, 5U, for 1800 mm/37U racks, black	
	84077059	NGR9-PC-ROUTING-CHAN-5U-GY	NGR patch cord routing channel 900, 5U, for 1800 mm/37U racks, grey	
4	84076607	NGR3-PC-ROUTING-CHAN-6U-BK	NGR patch cord routing channel 300, 6U, for 2200 mm/46U racks, black	
	84068221	NGR3-PC-ROUTING-CHAN-6U-GY	NGR patch cord routing channel 300, 6U, for 2200 mm/46U racks, grey	
5	84076609	NGR6-PC-ROUTING-CHAN-6U-BK	NGR patch cord routing channel 600, 6U, for 2200 mm/46U racks, black	
	84068220	NGR6-PC-ROUTING-CHAN-6U-GY	NGR patch cord routing channel 600, 6U, for 2200 mm/46U racks, grey	
6	84076610	NGR9-PC-ROUTING-CHAN-6U-BK	NGR patch cord routing channel 900, 6U, for 2200 mm/46U racks, black	
	84068218	NGR9-PC-ROUTING-CHAN-6U-GY	NGR patch cord routing channel 900, 6U, for 2200 mm/46U racks, grey	
7	84136916	NGR9-ROUT-CHAN-6U-FOR-1200-BK	NGR patch cord routing channel 900, 6U, for 2200 mm/46U racks in ODF 1200 (to achieve straight back-to-back pass through), black	
	84085828	NGR9-ROUT-CHAN-6U-FOR-1200-GY	NGR patch cord routing channel 900, 6U, for 2200 mm/46U racks in ODF 1200 (to achieve straight back-to-back pass through), grey	
8	85150195	NGR15-ROUT-CHAN-DA-2U-BK	NGR patch cord routing channel 1500, 2U, for 2200 mm/46U double access ODF, black (suitable to CDR)	
	85150267	NGR15-ROUT-CHAN-DA-2U-GY	NGR patch cord routing channel 1500, 2U, for 2200 mm/46U double access ODF, grey (suitable to CDR)	
9	85150268	NGR3-ROUT-CHAN-DA-2U-BK	NGR patch cord routing channel 300, 2U, for 2200 mm/46U double access ODF extension, black (suitable to CDR)	
	85150269	NGR3-ROUT-CHAN-DA-2U-GY	NGR patch cord routing channel 300, 2U, for 2200 mm/46U double access ODF extension, grey (suitable to CDR)	

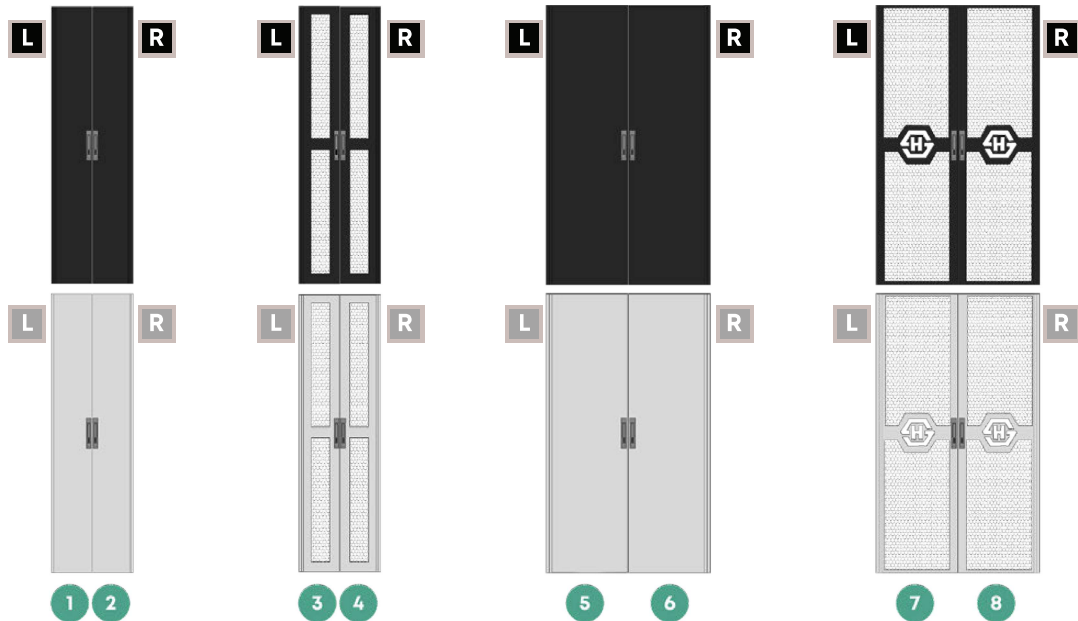
NGR top covers, back and side walls



Ordering information

#	Item number	Descriptive code	Item text	LT
1	84068214	NGR3-TOP-BRUSH	NGR 300mm top brush stripes, grey	
2	84068211	NGR6-TOP-BRUSH	NGR 600mm top brush stripes, grey	
3	84068022	NGR9-TOP-BRUSH	NGR 900mm top brush stripes, grey	
4	84076429	NGR3-TOP-SOLID	NGR 300mm top solid cover, grey	
5	84076430	NGR6-TOP-SOLID	NGR 600mm top solid cover, grey	
6	84076431	NGR9-TOP-SOLID	NGR 900mm top solid cover, grey	
7	84076599	NGR3-BW-1800-BK	NGR 300 mm back wall, 1800 mm, incl. installation material, black	
	84068271	NGR3-BW-1800-GY	NGR 300 mm back wall, 1800 mm, incl. installation material, grey	
	84076463	NGR3-BW-2200-BK	NGR 300 mm back wall, 2200 mm, incl. installation material, black	
	84068173	NGR3-BW-2200-GY	NGR 300 mm back wall, 2200 mm, incl. installation material, grey	
8	84076612	NGR6-BW-1800-BK	NGR 600 mm back wall, 1800 mm, incl. installation material, black	
	84068269	NGR6-BW-1800-GY	NGR 600 mm back wall, 1800 mm, incl. installation material, grey	
	84076460	NGR6-BW-2200-BK	NGR 600 mm back wall, 2200 mm, incl. installation material, black	
	84068171	NGR6-BW-2200-GY	NGR 600 mm back wall, 2200 mm, incl. installation material, grey	
9	84076613	NGR9-BW-1800-BK	NGR 900 mm back wall, 1800 mm, incl. installation material, black	
	84068265	NGR9-BW-1800-GY	NGR 900 mm back wall, 1800 mm, incl. installation material, grey	
	84076454	NGR9-BW-2200-BK	NGR 900 mm back wall, 2200 mm, incl. installation material, black	
10	84068165	NGR9-BW-2200-GY	NGR 900 mm back wall, 2200 mm, incl. installation material, grey	
	84076542	NGR-SW-1800x300-BK	NGR side wall, 1800 mm, black	
	84068273	NGR-SW-1800x300-GY	NGR side wall, 1800 mm, grey	
	84076464	NGR-SW-2200x300-BK	NGR side wall, 2200 mm, black	
	84068179	NGR-SW-2200x300-GY	NGR side wall, 2200 mm, grey	

NGR doors



Ordering information

#	Item number	Descriptive code	Item text	LT
1	85003867	NGR-FD-SOLID-L-0LO-300x2200-BK	NGR solid door 300, left hinged, 2200 mm, black	
	85003866	NGR-FD-SOLID-L-0LO-300x2200-GY	NGR solid door 300, left hinged, 2200 mm, grey	
2	85003859	NGR-FD-SOLID-R-0LO-300x2200-BK	NGR solid door 300, right hinged, 2200 mm, black	
	85003858	NGR-FD-SOLID-R-0LO-300x2200-GY	NGR solid door 300, right hinged, 2200 mm, grey	
3	85003884	NGR-FD-PERFO-L-0LO-300x2200-BK	NGR perforated door 300, left hinged, 2200 mm, black	
	85003883	NGR-FD-PERFO-L-0LO-300x2200-GY	NGR perforated door 300, left hinged, 2200 mm, grey	
4	85003876	NGR-FD-PERFO-R-0LO-300x2200-BK	NGR perforated door 300, right hinged, 2200 mm, black	
	85003875	NGR-FD-PERFO-R-0LO-300x2200-GY	NGR perforated door 300, right hinged, 2200 mm, grey	
5	85003863	NGR-FD-SOLID-L-0LO-600x2200-BK	NGR solid door 600, left hinged, 2200 mm, black	
	85003862	NGR-FD-SOLID-L-0LO-600x2200-GY	NGR solid door 600, left hinged, 2200 mm, grey	
6	85003855	NGR-FD-SOLID-R-0LO-600x2200-BK	NGR solid door 600, right hinged, 2200 mm, black	
	85003854	NGR-FD-SOLID-R-0LO-600x2200-GY	NGR solid door 600, right hinged, 2200 mm, grey	
7	85003880	NGR-FD-PERFO-L-0LO-600x2200-BK	NGR perforated door 600, left hinged, 2200 mm, black	
	85003879	NGR-FD-PERFO-L-0LO-600x2200-GY	NGR perforated door 600, left hinged, 2200 mm, grey	
8	85003872	NGR-FD-PERFO-R-0LO-600x2200-BK	NGR perforated door 600, right hinged, 2200 mm, black	
	85003871	NGR-FD-PERFO-R-0LO-600x2200-GY	NGR perforated door 600, right hinged, 2200 mm, grey	

Application specific NGR

ODF SYLFA HD for telecom data center

Specific NGR 900 in ODF SYLFA HD application.

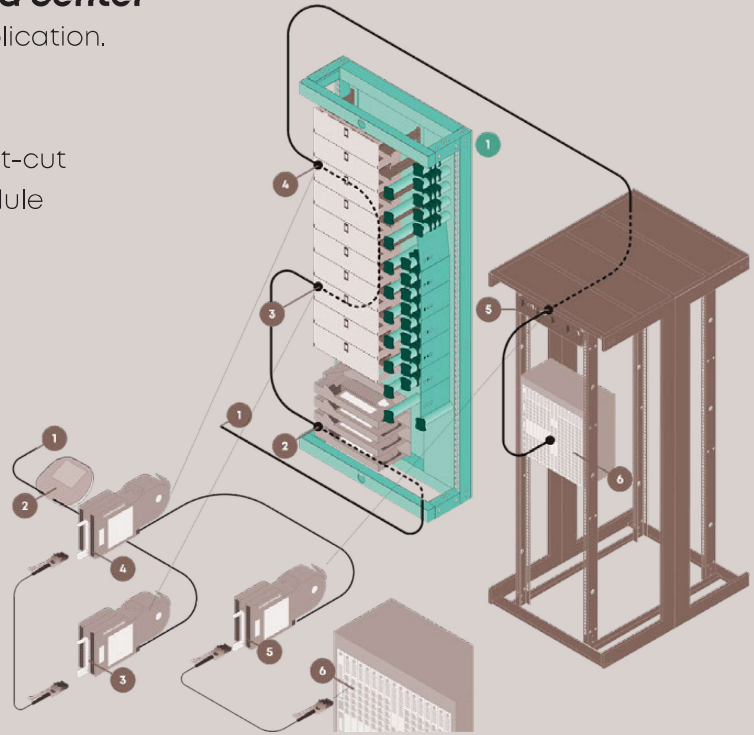
- (1) Outside plant cable
- (2) Splice point in CTS chassis
- (3) Optipack SYLFA HD module to blunt-cut
- (4) Optipack SYLFA HD module to module
- (5) SYLFA HD 19 inch patch panel

Example of ODF SY-HD

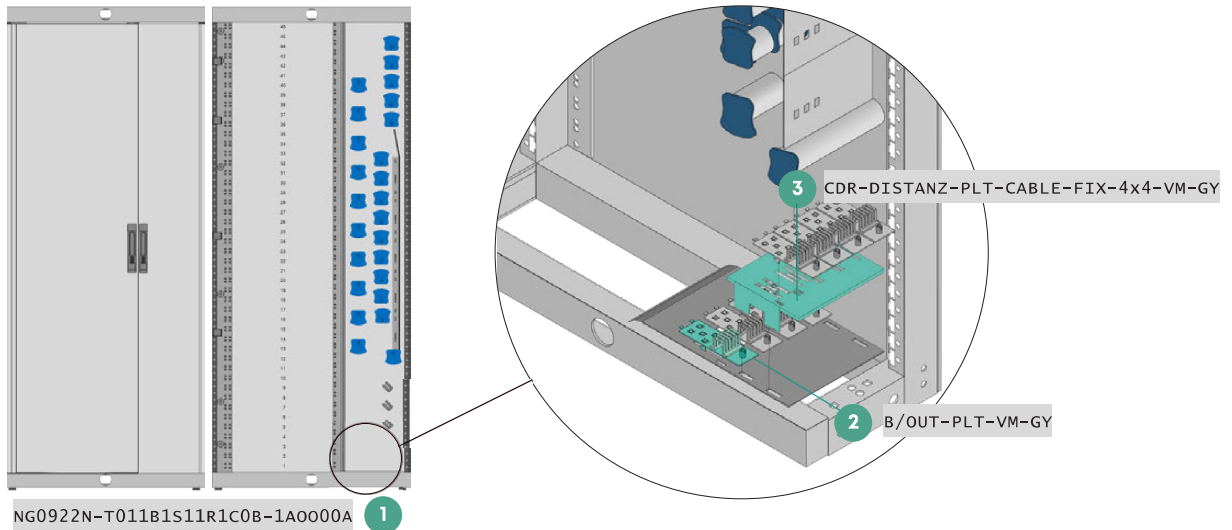
5x SYLFA HD ODF 3U chassis, equipment connections

5x SYLFA HD ODF 3U chassis, spliced to outside plant (OSP) cables

4x CTS 2U chassis, contain 1440 splices



NGR 900 for ODF SYLFA HD



Ordering information

#	Item number	Descriptive code	Item text	LT
1	85158574	NG0922N-T011B1S11R1C0B-1A0000A	Specific NGR 900, 2200 mm, for ODF SYLFA HD application, up to 2880 fibers, solid doors, for 4 CUBs, grey	
2	85143212	B/OUT-PLT-VM-GY	Modular CUB (cable breakout), maximum 8 per ODF	
3	85143210	ODF-DISTANZ-PLT-CABLE-FIX-4x4-VM-GY	Extension plate for CUBs, to put 4 additional CUB to the ODF	

LISA chassis overview

LISA chassis capacity

Height	Chassis per 900mm rack and used space	Number of cassettes per chassis	Number of fibers and duplex ports per full ODF	
			24-way cassette Basic version	36-way cassette High-density version
1U	46x / 46U	2	2208 fibers / 1104 ports	3312 fibers / 1656 ports
2U	23x / 46U	4		
3U	15x / 45U*	6	2160 fibers / 1080 ports	3240 fibers / 1620 ports
6U	7x / 42U*	12	2016 fibers / 1008 ports	3024 fibers / 1512 ports
7U (HD)	6x / 42U*	15	2160 fibers / 1080 ports	3240 fibers / 1620 ports

* It is possible to mix various chassis inside the rack to achieve higher density

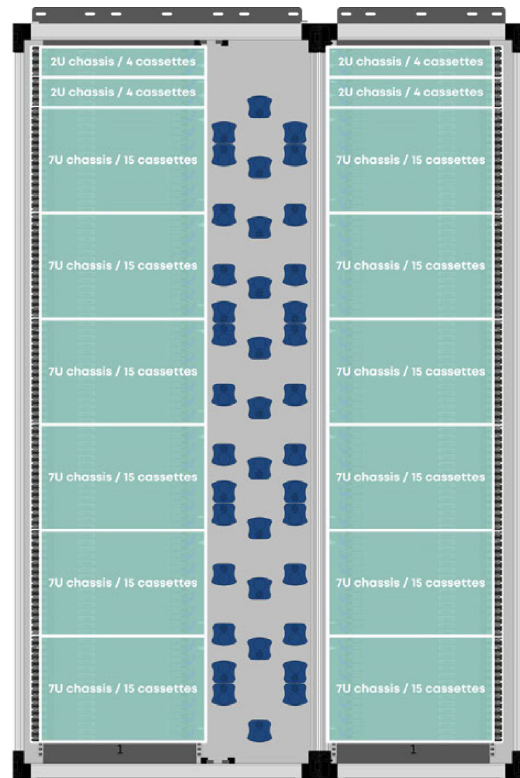
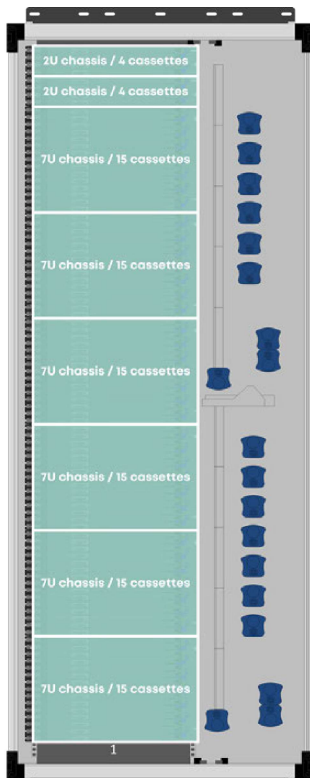
Maximum ODF LISA capacity

ODF LISA 900 LEFT:

- 6x 7U chassis
- 2x 2U chassis
- 98 cassettes
- 3528 fibers
- 1764 duplex ports

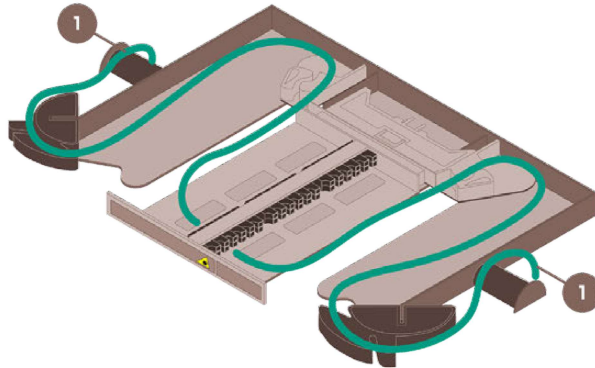
ODF LISA 1500 DOUBLE ACCESS:

- 12x 7U chassis
- 4x 2U chassis
- 196 cassettes
- 7056 fibers
- 3528 duplex ports

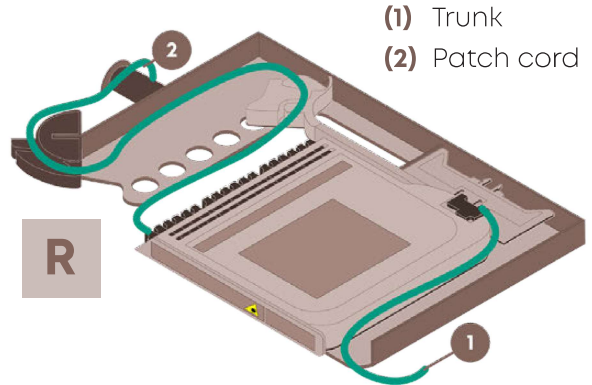
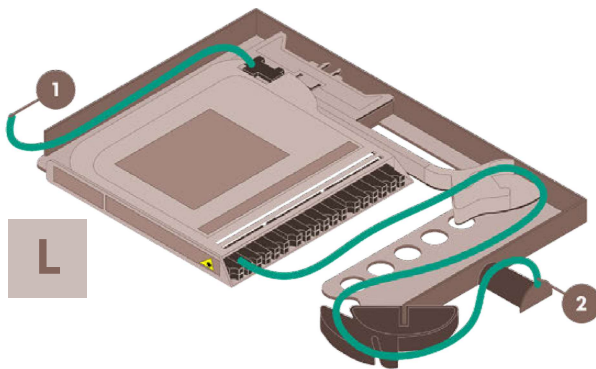


Chassis types for patching applications

(1) Trunk or patch cord



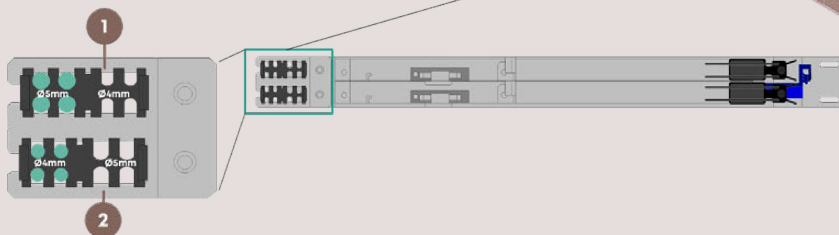
Chassis types for transition or splicing applications



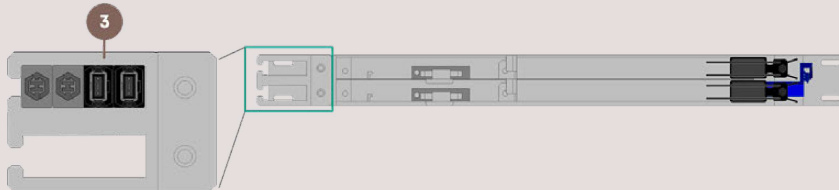
(1) Trunk
(2) Patch cord

Transition/splicing universal chassis for various applications

Splice – side bracket with protection tube gland



Transition – side bracket without protection tube gland



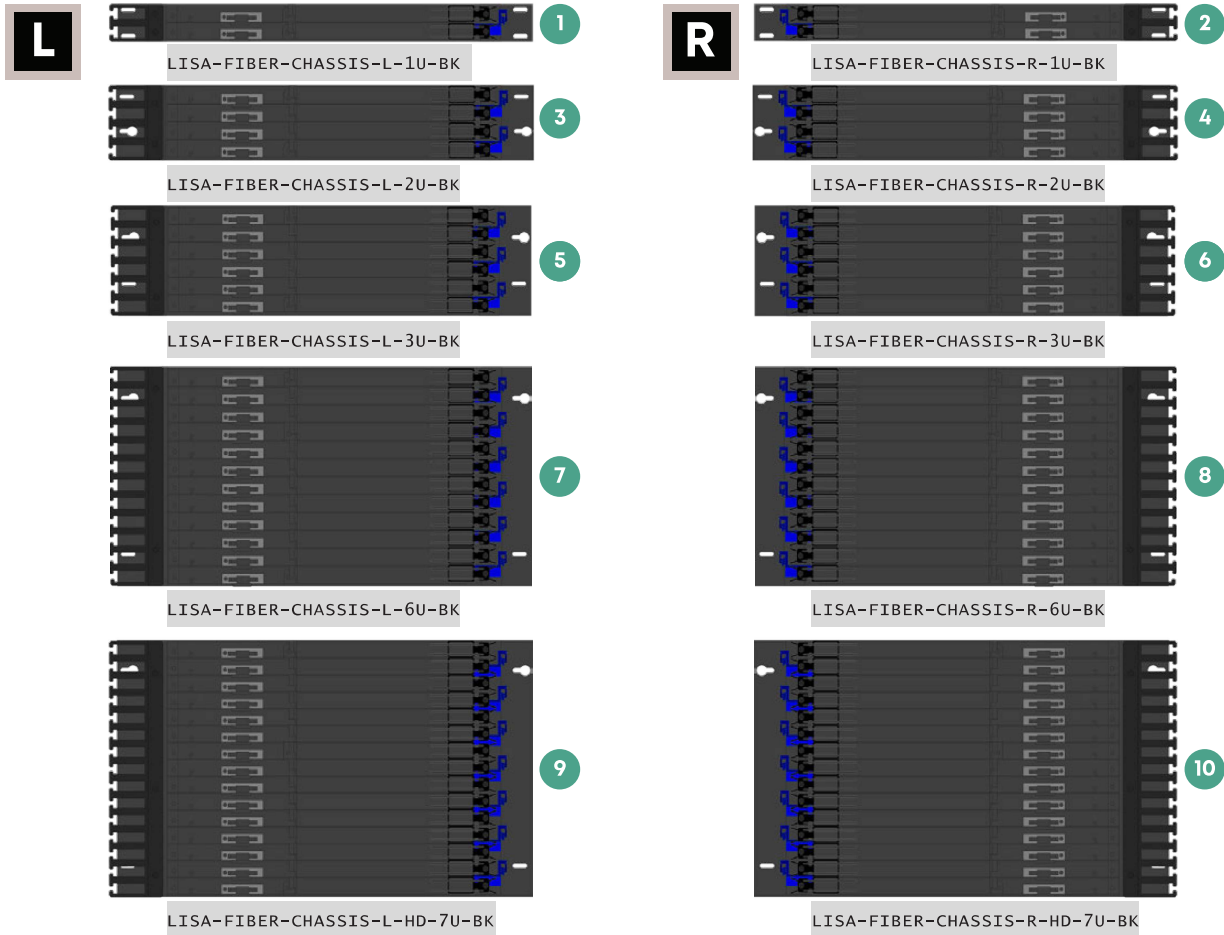
Ribbon splice – no side bracket



- (1) 4x Ø5 mm per cassette
 - Ø5 mm protection tubes
 - Ø4.9 mm / Ø5 mm cable
- (2) 4x 4 mm per cassette:
 - Ø4 mm protection tubes
 - Ø4 mm cable
- (3) Max. 4x MTP adapters

LISA chassis splicing and transition

LISA chassis black



Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85109679	LISA-FIBER-CHASSIS-L-1U-BK	LISA chassis LEFT, 1U, black colour, 2 cassettes		
2	85109681	LISA-FIBER-CHASSIS-R-1U-BK	LISA chassis RIGHT, 1U, black colour, 2 cassettes		
3	85109675	LISA-FIBER-CHASSIS-L-2U-BK	LISA chassis LEFT, 2U, black colour, 4 cassettes		
4	85109677	LISA-FIBER-CHASSIS-R-2U-BK	LISA chassis RIGHT, 2U, black colour, 4 cassettes		
5	85109670	LISA-FIBER-CHASSIS-L-3U-BK	LISA chassis LEFT, 3U, black colour, 6 cassettes		
6	85109672	LISA-FIBER-CHASSIS-R-3U-BK	LISA chassis RIGHT, 3U, black colour, 6 cassettes		
7	85109654	LISA-FIBER-CHASSIS-L-6U-BK	LISA chassis LEFT, 6U, black colour, 12 cassettes		
8	85109657	LISA-FIBER-CHASSIS-R-6U-BK	LISA chassis RIGHT, 6U, black colour, 12 cassettes		
9	85109665	LISA-FIBER-CHASSIS-L-HD-7U-BK	LISA chassis LEFT, 7U, black colour, 15 cassettes		
10	85109668	LISA-FIBER-CHASSIS-R-HD-7U-BK	LISA chassis RIGHT, 7U, black colour, 15 cassettes		

LISA chassis grey

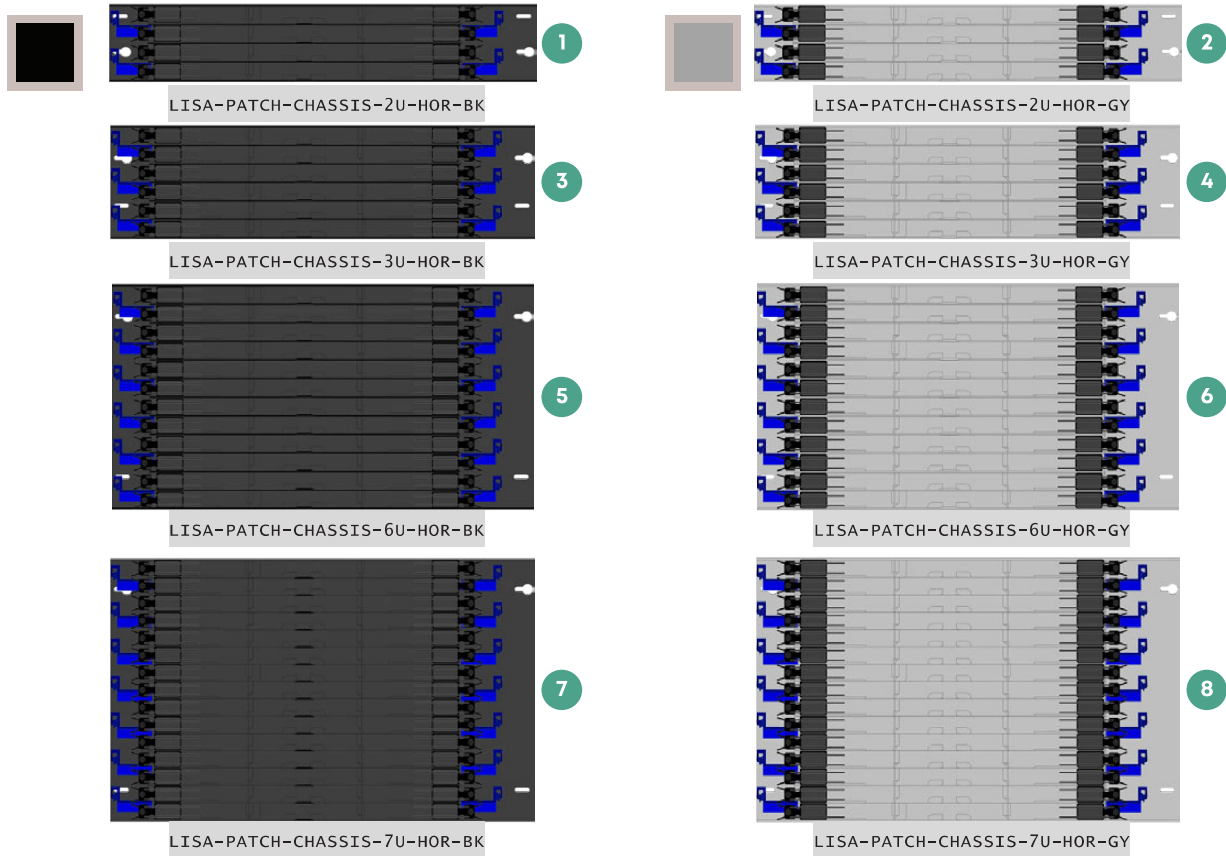


Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85109678	LISA-FIBER-CHASSIS-L-1U-GY	LISA chassis LEFT, 1U, grey colour, 2 cassettes		
2	85109680	LISA-FIBER-CHASSIS-R-1U-GY	LISA chassis RIGHT, 1U, grey colour, 2 cassettes		
3	85109673	LISA-FIBER-CHASSIS-L-2U-GY	LISA chassis LEFT, 2U, grey colour, 4 cassettes		
4	85109676	LISA-FIBER-CHASSIS-R-2U-GY	LISA chassis RIGHT, 2U, grey colour, 4 cassettes		
5	85109669	LISA-FIBER-CHASSIS-L-3U-GY	LISA chassis LEFT, 3U, grey colour, 6 cassettes		
6	85109671	LISA-FIBER-CHASSIS-R-3U-GY	LISA chassis RIGHT, 3U, grey colour, 6 cassettes		
7	85109649	LISA-FIBER-CHASSIS-L-6U-GY	LISA chassis LEFT, 6U, grey colour, 12 cassettes		
8	85109659	LISA-FIBER-CHASSIS-R-6U-GY	LISA chassis RIGHT, 6U, grey colour, 12 cassettes		
9	85109661	LISA-FIBER-CHASSIS-L-HD-7U-GY	LISA chassis LEFT, 7U, grey colour, 15 cassettes		
10	85109666	LISA-FIBER-CHASSIS-R-HD-7U-GY	LISA chassis RIGHT, 7U, grey colour, 15 cassettes		

LISA chassis patching

LISA chassis patching



Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85015635	LISA-PATCH-CHASSIS-2U-HOR-BK	LISA patch chassis, 2U, black colour, 2 patching cassettes		
2	85017844	LISA-PATCH-CHASSIS-2U-HOR-GY	LISA patch chassis, 2U, grey colour, 2 patching cassettes		
3	85015637	LISA-PATCH-CHASSIS-3U-HOR-BK	LISA patch chassis, 3U, black colour, 6 patching cassettes		
4	85017845	LISA-PATCH-CHASSIS-3U-HOR-GY	LISA patch chassis, 3U, grey colour, 6 patching cassettes		
5	85015144	LISA-PATCH-CHASSIS-6U-HOR-BK	LISA patch chassis, 6U, black colour, 12 patching cassettes		
6	85014370	LISA-PATCH-CHASSIS-6U-HOR-GY	LISA patch chassis, 6U, grey colour, 12 patching cassettes		
7	85017847	LISA-PATCH-CHASSIS-7U-HOR-BK	LISA patch chassis, 7U, black colour, 15 patching cassettes		
8	85017846	LISA-PATCH-CHASSIS-7U-HOR-GY	LISA patch chassis, 7U, grey colour, 15 patching cassettes		

LISA chassis accessories

LISA chassis integrated accessories

Supplied with LISA chassis, but can be ordered separately if necessary



OFBLT-Conduit-Gland-8-way-BK

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85109631	OFBLT-Conduit-Gland-8-way-BK	8-way (4x 4 mm and 4x 5 mm) gland, for splicing applications		

LISA chassis image



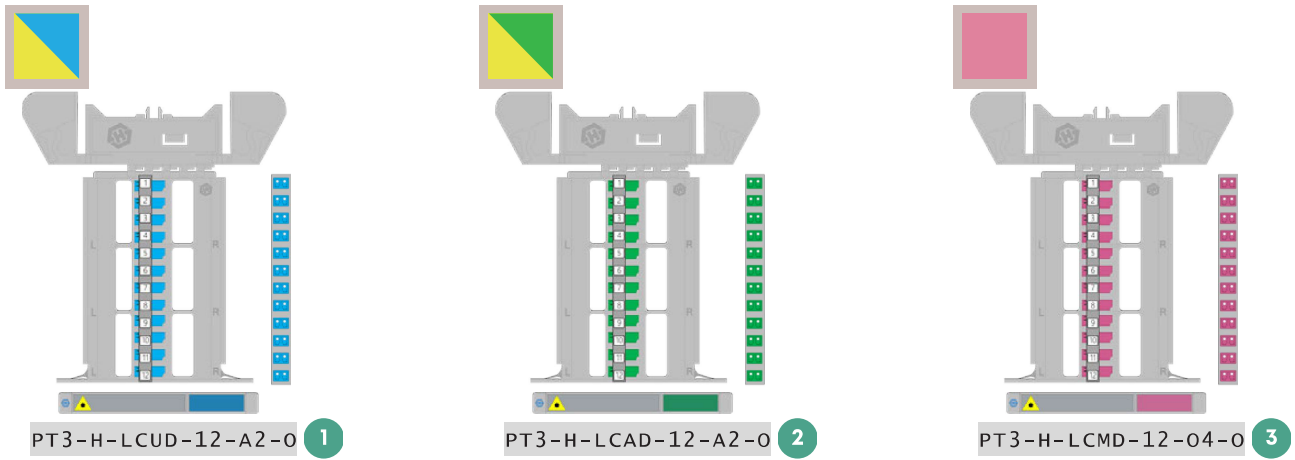
- (1) 19 inch mounting
- (2) Integrated cable manager for service loop
- (3) LISA cassettes
- (4) Side bracket

Fiber management systems Cassettes and modules

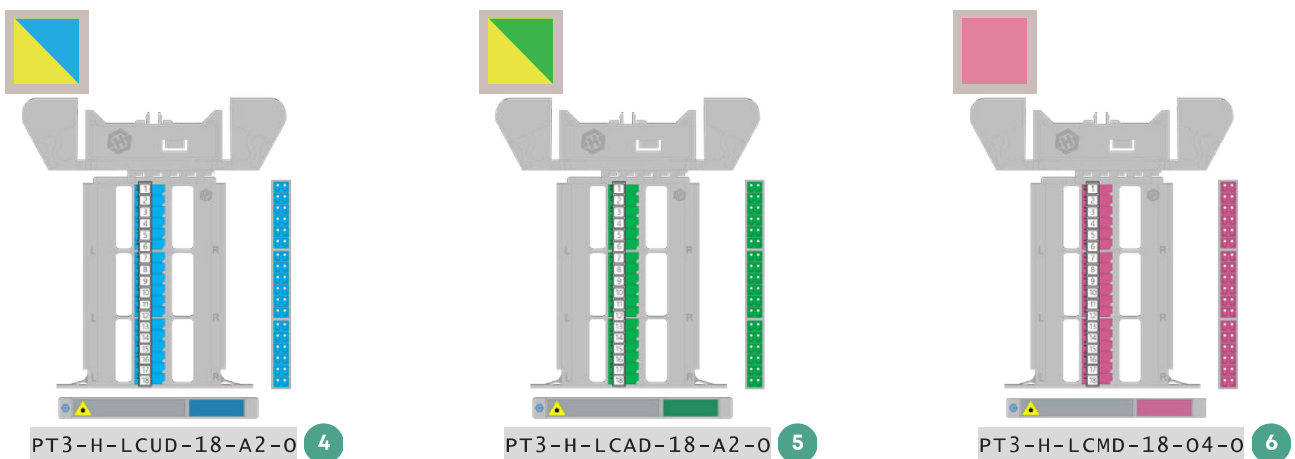


LISA patching LCd, SC and E-2000

LISA patching cassettes 12x LCd

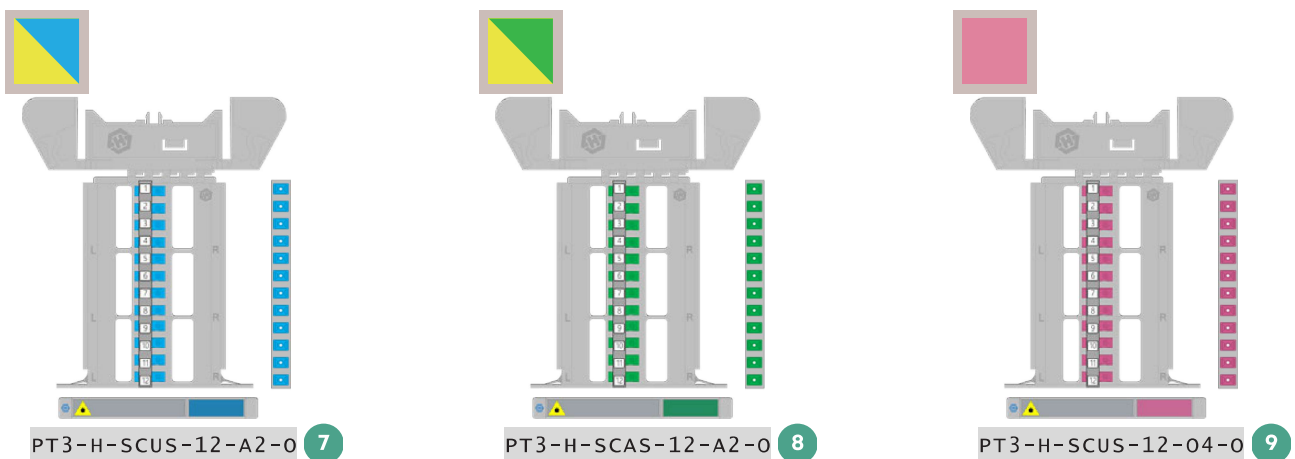


LISA patching cassettes 18x LCd

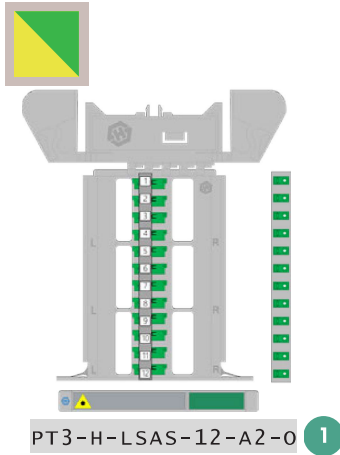


* 18x LCd supports LC-XD or LC uniboot patch cords only

LISA patching cassettes 12x SC

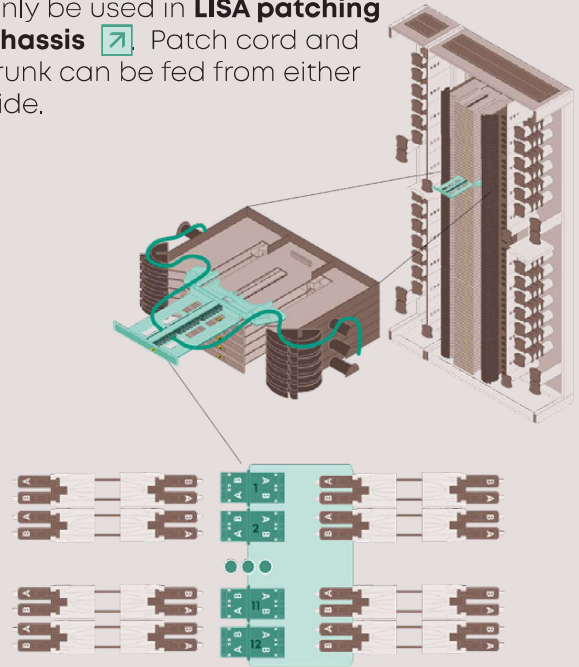


LISA patching cassettes 12x E-2000



LISA chassis patching

LISA patching cassettes can only be used in **LISA patching chassis** [↗](#). Patch cord and trunk can be fed from either side.



Ordering information

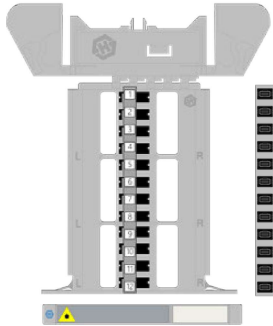
#	Item number	Descriptive code	Item text	LT	URL
1	85103002	PT3-H-LCUD-12-A2-O	LISA patching cassette, 12 x LC UPC Adapter, singlemode blue	★	↗
2	85103003	PT3-H-LCAD-12-A2-O	LISA patching cassette, 12 x LC APC Adapter, singlemode green	🕒	↗
3	85103004	PT3-H-LCMD-12-O4-O	LISA patching cassette, 12 x LC Adapter, multimode heather violet	☑	↗
4	85103006	PT3-H-LCUD-18-A2-O	LISA patching cassette, 18 x LC UPC duplex adapter, singlemode blue	🕒	↗
5	85103007	PT3-H-LCAD-18-A2-O	LISA patching cassette, 18 x LC APC duplex adapter, singlemode green	🕒	↗
6	85103008	PT3-H-LCMD-18-O4-O	LISA patching cassette, 18 x LC Adapter, multimode heather violet	🕒	↗
7	85106128	PT3-H-SCUS-12-A2-O	LISA patching cassette, 12 x SC UPC Adapter, singlemode blue	☑	↗
8	85105343	PT3-H-SCAS-12-A2-O	LISA patching cassette, 12 x SC APC Adapter, singlemode green	🕒	↗
9	85117502	PT3-H-SCUS-12-O4-O	LISA patching cassette, 12 x SC Adapter, singlemode heather violet	🕒	↗
10	85110782	PT3-H-LSAS-12-A2-O	LISA patching cassette, 12 x E-2000 APC adapter, singlemode green	🕒	↗

LISA patching MTP



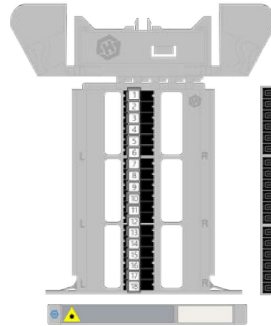
LISA patching cassettes MPO/MTP

12x MPO/MTP



PT3-H-MTPS-12-ZZ-O 1

18x MPO/MTP



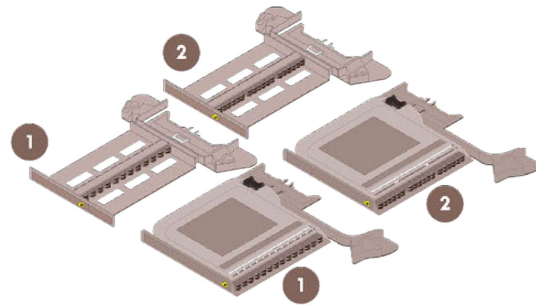
PT3-H-MTPS-18-ZZ-O 2

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85103005	PT3-H-MTPS-12-ZZ-O	LISA patching cassette, 12 x MTP key up/key down adapter	<input checked="" type="checkbox"/>	↗
2	85103009	PT3-H-MTPS-18-ZZ-O	LISA patching cassette, 18 x MTP key up/key down adapter	<input checked="" type="checkbox"/>	↗

Compatibility of LISA cassettes and LCd connector

- (1) 12 port cassettes
- (2) >12 port cassettes (e.g. 18- port), high-density

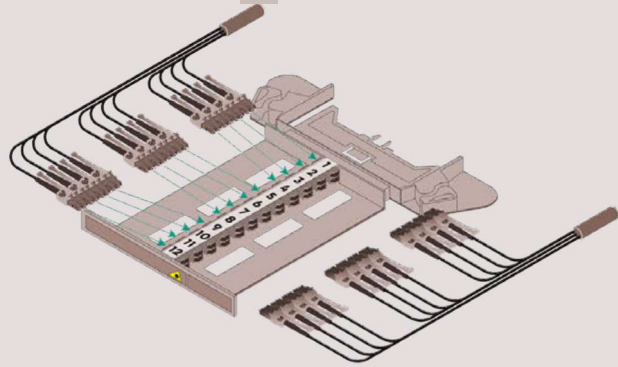
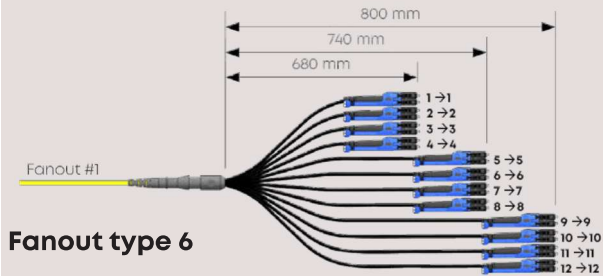


LC connector type	Top view	Side view	1	2
LC classic LC with classic clip · simplex · duplex			✓	✗
LC push-pull LC with push-pull clip · simplex · duplex			✓	✓
LC-HD simplex LC with HD clip			✓	✓
LC-HD duplex LC with duplex HD clip			✓	✓
LC-XD LC uniboot with XD clip			✓	✓
LC classic uniboot			✓	✓

Recommended fanout pattern matching LISA patching cassettes

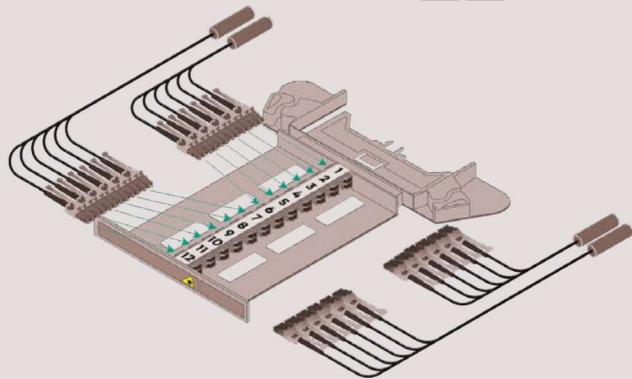
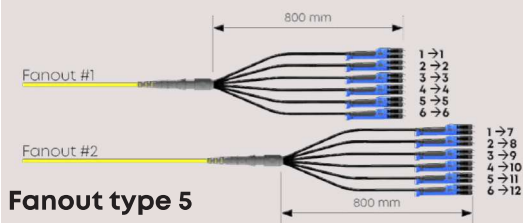
Optipack harness Base-24 to 12x adapter patching cassette

24



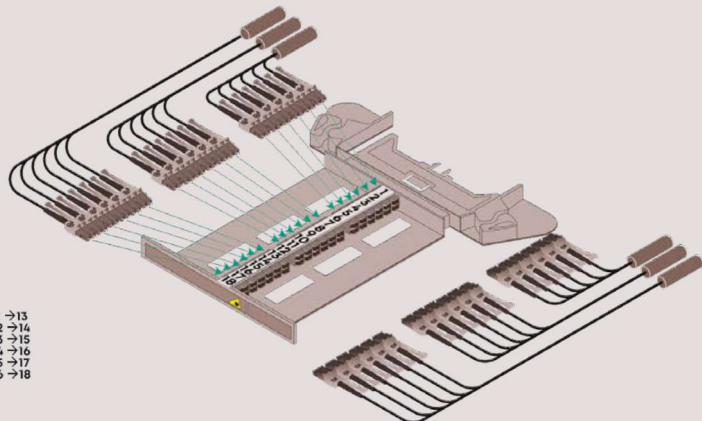
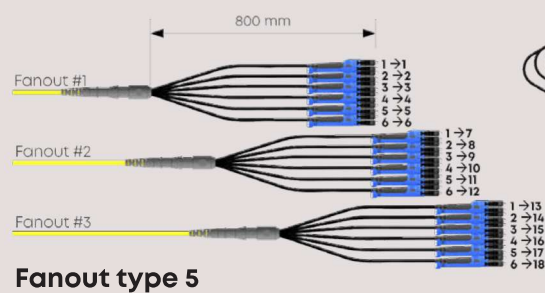
2x Optipack harness Base-12e or Base-12 to 12x adapter patching cassette

12 12



3x Optipack harness Base-12e or Base-12 to 18x adapter patching cassette

12 12




LISA splicing LC

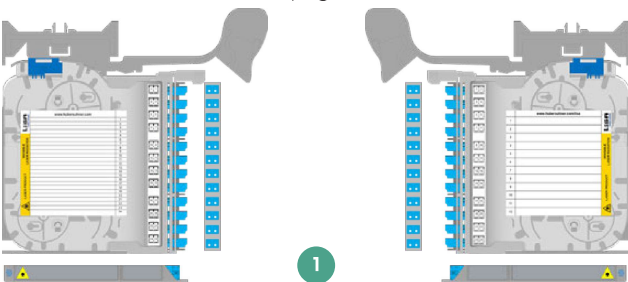


LISA splicing cassette 12x LCd

No colour code - all pigtails same colour - heatshrink or sandwich




1

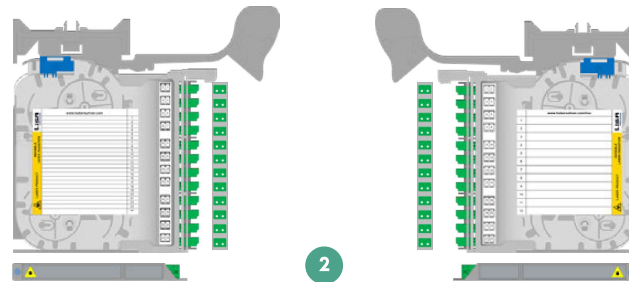


LC-L-SH-88-12-24-09-H1-000-S0 heatshrink
LC-L-SH-88-12-24-09-S0-000-S0 sandwich

heatshrink LC-R-SH-88-12-24-09-H1-000-S0
sandwich LC-R-SH-88-12-24-09-S0-000-S0




2

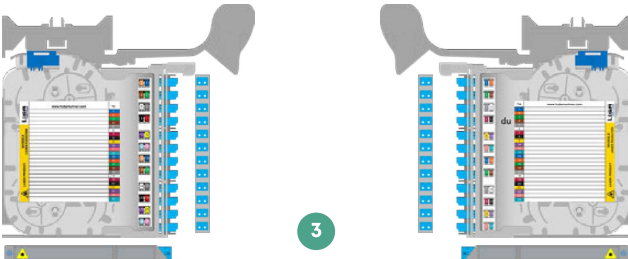


LC-L-SH-89-12-24-09-H1-000-S0 heatshrink
LC-L-SH-89-12-24-09-S0-000-S0 sandwich

heatshrink LC-R-SH-89-12-24-09-H1-000-S0
sandwich LC-R-SH-89-12-24-09-S0-000-S0

Coloured pigtails - according to TIA colour code  - heatshrink only - individual or ribbon

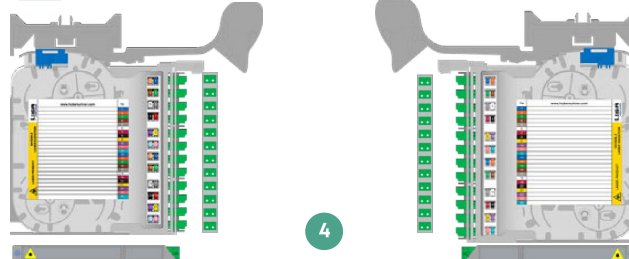
3



LC-L-SH-88-12-24-09-H1-040-S0 individual
LC-L-RH-88-12-24-09-H1-040-S0 ribbon

individual LC-R-SH-88-12-24-09-H1-040-S0
ribbon LC-R-SH-88-12-24-09-H1-040-S0

4




LC-L-SH-89-12-24-09-H1-040-S0 individual
LC-L-RH-89-12-24-09-H1-040-S0 ribbon

individual LC-R-SH-89-12-24-09-H1-040-S0
ribbon LC-R-RH-89-12-24-09-H1-040-S0

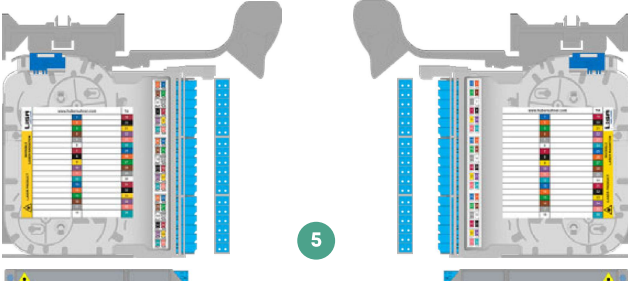


LISA splicing cassette 18x LCd

Coloured pigtails - according to TIA colour code - heatshrink only




5

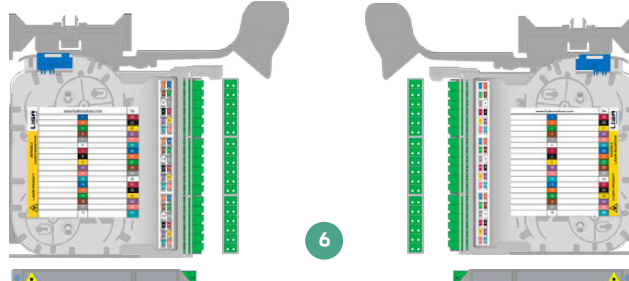


LC-L-SH-88-18-36-09-H1-040-S0 individual
LC-L-RH-88-18-36-09-H1-040-S0 ribbon

individual LC-R-SH-88-18-36-09-H1-040-S0
ribbon LC-R-SH-88-18-36-09-H1-040-S0



6



LC-L-SH-89-18-36-09-H1-040-S0 individual
LC-L-RH-89-18-36-09-H1-040-S0 ribbon

individual LC-R-SH-89-18-36-09-H1-040-S0
ribbon LC-R-RH-89-18-36-09-H1-040-S0

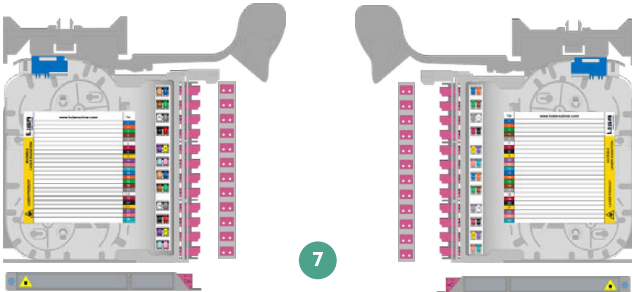
* 18x LCd supports LC-XD or LC uniboot patch cords only

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GPSof

LISA splicing cassette 12x LCd multimode



Coloured pigtails - according to TIA colour code - heatshrink only

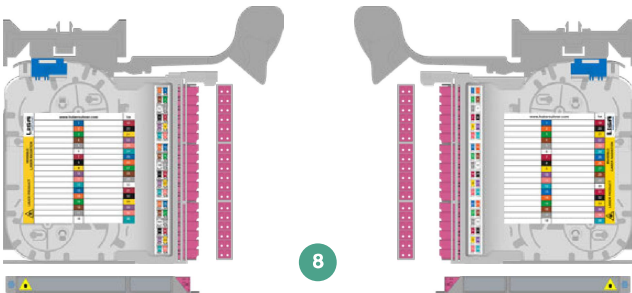


LC-L-SH-88-12-24-54-H1-040-L0 heatshrink
 heatshrink LC-R-SH-88-12-24-09-H1-040-L0

LISA splicing cassette 18x LCd multimode



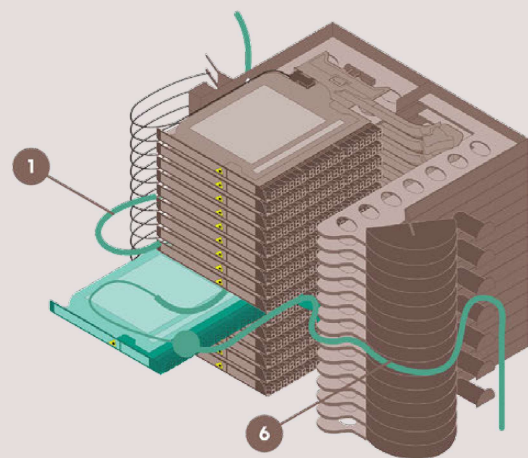
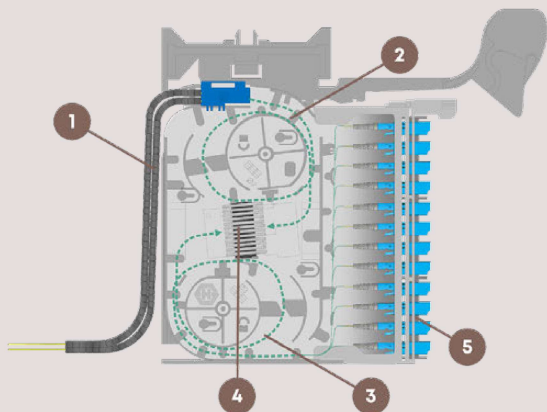
Coloured pigtails - according to TIA colour code - heatshrink only



LC-L-SH-88-18-36-54-H1-040-L0 heatshrink
 heatshrink LC-R-SH-88-18-36-09-H1-040-L0

* 18x LCd supports LC-XD or LC uniboot patch cords only

LISA cassette splicing scheme



- (1) Maximum:
 - loose tube protection tubes: 3x Ø5 mm, 4x Ø4 mm, 1x Ø6 mm
 - cables: 3x Ø2 mm, 3x Ø3 mm
- (2) Routing of incoming fibers
- (3) Routing of pigtail

- (4) Splice holder:
 - individual heatshrink
 - ribbon heatshrink
 - sandwich
- (5) LC, SC or E-2000 connector
- (6) Patch cord routing

LISA splicing LC

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85088090	LC-L-SH-88-12-24-09-HI-00O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC UPC duplex, no colour code, heatshrink, singlemode		
	85088674	LC-L-SH-88-12-24-09-S0-00O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC UPC duplex, no colour code, sandwich, singlemode		
	85108917	LC-R-SH-88-12-24-09-HI-00O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC UPC duplex, no colour code, heatshrink, singlemode		
	on request	LC-R-SH-88-12-24-09-S0-00O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC UPC duplex, no colour code, sandwich, singlemode		
2	85088093	LC-L-SH-89-12-24-09-HI-00O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC APC duplex, no colour code, heatshrink, singlemode		
	on request	LC-L-SH-89-12-24-09-S0-00O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC APC duplex, no colour code, ribbon, singlemode		
	85111134	LC-R-SH-89-12-24-09-HI-00O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC APC duplex, no colour code, heatshrink, singlemode		
	on request	LC-R-SH-89-12-24-09-S0-00O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC APC duplex, no colour code, ribbon, singlemode		
3	85099647	LC-L-SH-88-12-24-09-HI-04O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC UPC duplex, TIA colour code, heatshrink, singlemode		
	85134925	LC-L-RH-88-12-24-09-HI-04O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC UPC duplex, TIA colour code, ribbon, singlemode		
	85128214	LC-R-SH-88-12-24-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC UPC duplex, TIA colour code, heatshrink, singlemode		
	85158824	LC-R-RH-88-12-24-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC UPC duplex, TIA colour code, ribbon, singlemode		
4	85101367	LC-L-SH-89-12-24-09-HI-04O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC APC duplex, TIA colour code, heatshrink, singlemode		
	85134926	LC-L-RH-89-12-24-09-HI-04O-S0	LISA splicing cassette LC LEFT, 24 fibers, LC APC duplex, TIA colour code, ribbon, singlemode		
	85111137	LC-R-SH-89-12-24-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC APC duplex, TIA colour code, heatshrink, singlemode		
	85163175	LC-R-RH-89-12-24-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC APC duplex, TIA colour code, ribbon, singlemode		
5	85127816	LC-L-SH-88-18-36-09-HI-04O-S0	LISA splicing cassette LC LEFT, 36 fibers, LC UPC duplex, TIA colour code, heatshrink, singlemode		
	on request	LC-L-RH-88-18-36-09-HI-04O-S0	LISA splicing cassette LC LEFT, 36 fibers, LC UPC duplex, TIA colour code, ribbon, singlemode		
	85143797	LC-R-SH-88-18-36-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC UPC duplex, TIA colour code, heatshrink, singlemode		
	85155868	LC-R-RH-88-18-36-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC UPC duplex, TIA colour code, ribbon, singlemode		
6	85202480	LC-L-SH-89-18-36-09-HI-04O-S0	LISA splicing cassette LC LEFT, 36 fibers, LC APC duplex, TIA colour code, heatshrink, singlemode		
	on request	LC-L-RH-89-18-36-09-HI-04O-S0	LISA splicing cassette LC LEFT, 36 fibers, LC APC duplex, TIA colour code, ribbon, singlemode		
	on request	LC-R-SH-89-18-36-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC APC duplex, TIA colour code, heatshrink, singlemode		
	on request	LC-R-RH-89-18-36-09-HI-04O-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC APC duplex, TIA colour code, ribbon, singlemode		
7	85088676	LC-L-SH-88-12-24-54-HI-04O-L0	LISA splicing cassette LC LEFT, 24 fibers, LC duplex, TIA colour code, heatshrink, multimode OM4		
	85111140	LC-R-SH-88-12-24-54-HI-04O-L0	LISA splicing cassette LC RIGHT, 24 fibers, LC duplex, TIA colour code, heatshrink, multimode OM4		
8	on request	LC-L-SH-88-18-36-54-HI-04O-L0	LISA splicing cassette LC LEFT, 36 fibers, LC duplex, TIA colour code, heatshrink, multimode OM4		
	on request	LC-R-SH-88-18-36-54-HI-04O-L0	LISA splicing cassette LC RIGHT, 36 fibers, LC duplex, TIA colour code, heatshrink, multimode OM4		

LISA LEFT and RIGHT cassettes

L

LEFT cassette

LISA **LEFT** cassette is oriented in the way that the incoming cables **(1)** enter cassette from the left side and patch field **(2)** is on the right side.

R

RIGHT cassette

LISA **RIGHT** cassette is oriented in the way that the incoming cables **(1)** enter cassette from the right side and patch field **(2)** is on the left side.

Warning
LEFT cassettes should be only used in combination with **LEFT** LISA chassis, and **RIGHT** cassettes should be only used in combination with **RIGHT** LISA chassis.

LISA cassette colour differentiation labelling

LISA cassettes are supplied with 2 sets of colour strips that can be inserted in the label holder.

Strip colour	Example of use
RAL 6024 Traffic Green RGB(34,139,94)	Horizontal cabling
RAL 2003 Pastel Orange RGB(240,127,65)	Redundant cabling
RAL 5015 Sky Blue RGB(34,128,178)	Backbone cabling
RAL 3020 Traffic Red RGB(186,56,55)	Equipment cabling
RAL 1060 Sulfur Yellow RGB(231,255,70)	Singlemode fiber
RAL 6027 Light Green RGB(130,190,186)	Multimode OM3
RAL 4003 Heather violet RGB(198,105,149)	Multimode OM4
RAL 7040 Window grey RGB(157,163,168)	Other application
RAL 9010 Pure White RGB(240,239,232)	Other application

1 Larger label **2** Smaller label

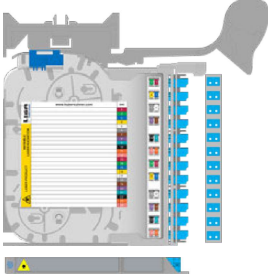
LISA splicing LC - DIN colour code



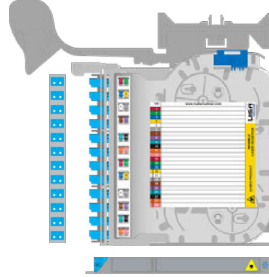
LISA splicing cassette 12x LCd DIN colour code



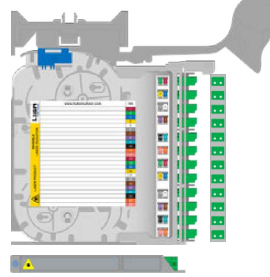
Coloured pigtails - according to DIN colour code - sandwich only



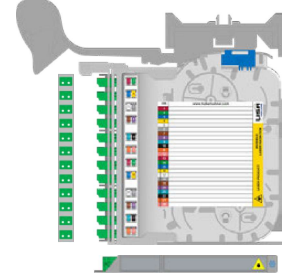
1



LC-L-SH-88-12-24-09-s0-020-s0 sandwich
sandwich LC-R-SH-88-12-24-09-s0-020-s0



2



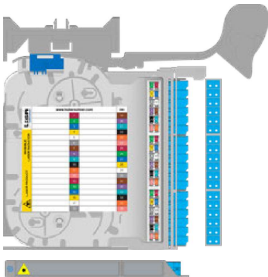
LC-L-SH-89-12-24-09-s0-020-s0 sandwich
sandwich LC-R-SH-89-12-24-09-s0-020-s0



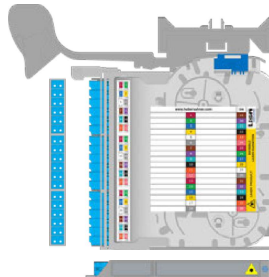
LISA splicing cassette 18x LCd DIN colour code



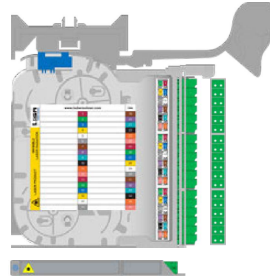
Coloured pigtails - according to DIN colour code - sandwich only



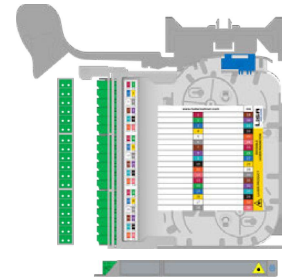
3



LC-L-SH-88-18-36-09-s0-020-s0 sandwich
sandwich LC-R-SH-88-18-36-09-s0-020-s0



4



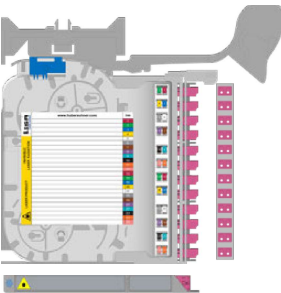
LC-L-SH-89-18-36-09-s0-020-s0 sandwich
sandwich LC-R-SH-89-18-36-09-s0-020-s0

* 18x LCd supports LC-XD or LC uniboot patch cords only

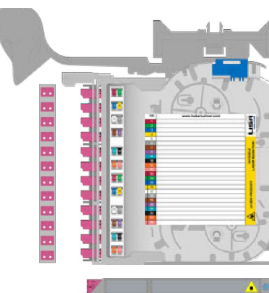


LISA splicing cassette 12x LCd multimode DIN colour code

Coloured pigtails - according to DIN colour code - sandwich only



5

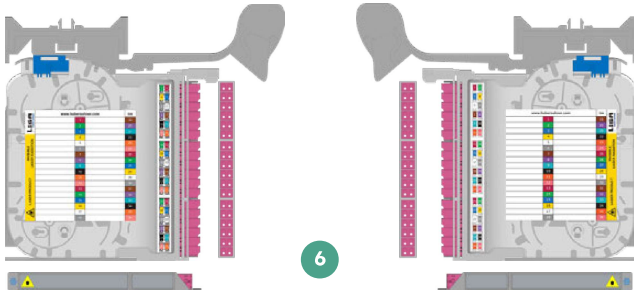


LC-L-SH-88-12-24-54-s0-020-L0 sandwich
sandwich LC-R-SH-88-12-24-54-s0-020-L0

LISA splicing cassette 18x LCd multimode DIN colour code















Coloured pigtails - according to TIA colour code  - heatshrink only



LC-L-SH-88-18-36-54-S0-020-L0 sandwich
 sandwich LC-R-SH-88-18-36-54-S0-020-L0

* 18x LCd supports LC-XD or LC uniboot patch cords only

Ordering information

#	Item number	Descriptive code	Item text	LT
1	85135441	LC-L-SH-88-12-24-09-S0-020-S0	LISA splicing cassette LC LEFT, 24 fibers, LC UPC duplex, DIN colour code, sandwich splice protectors, singlemode	
	85159560	LC-R-SH-88-12-24-09-S0-020-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC UPC duplex, DIN colour code, sandwich splice protectors, singlemode	
2	85144371	LC-L-SH-89-12-24-09-S0-020-S0	LISA splicing cassette LC LEFT, 24 fibers, LC APC duplex, DIN colour code, sandwich splice protectors, singlemode	
	85144373	LC-R-SH-89-12-24-09-S0-020-S0	LISA splicing cassette LC RIGHT, 24 fibers, LC APC duplex, DIN colour code, sandwich splice protectors, singlemode	
3	on request	LC-L-SH-88-18-36-09-S0-020-S0	LISA splicing cassette LC LEFT, 36 fibers, LC UPC duplex, DIN colour code, sandwich splice protectors, singlemode	
	on request	LC-R-SH-88-18-36-09-S0-020-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC UPC duplex, DIN colour code, sandwich splice protectors, singlemode	
4	on request	LC-L-SH-89-18-36-09-S0-020-S0	LISA splicing cassette LC LEFT, 36 fibers, LC APC duplex, DIN colour code, sandwich splice protectors, singlemode	
	85146149	LC-R-SH-89-18-36-09-S0-020-S0	LISA splicing cassette LC RIGHT, 36 fibers, LC APC duplex, DIN colour code, sandwich splice protectors, singlemode	
5	85135442	LC-L-SH-88-12-24-54-S0-020-L0	LISA splicing cassette LC LEFT, 24 fibers, LC duplex, DIN colour code, sandwich splice protectors, multimode OM4	
	85144372	LC-R-SH-88-12-24-54-S0-020-L0	LISA splicing cassette LC RIGHT, 24 fibers, LC duplex, DIN colour code, sandwich splice protectors, multimode OM4	
6	on request	LC-L-SH-88-18-36-54-S0-020-L0	LISA splicing cassette LC LEFT, 36 fibers, LC duplex, DIN colour code, sandwich splice protectors, multimode OM4	
	on request	LC-R-SH-88-18-36-54-S0-020-L0	LISA splicing cassette LC RIGHT, 36 fibers, LC duplex, DIN colour code, sandwich splice protectors, multimode OM4	

LISA splicing others



LISA splicing cassette 12x SC

No colour code - all pigtails same colour - heatshrink only

LC-L-SH-70-12-12-09-H1-000-S0 heatshrink
heatshrink LC-R-SH-70-12-12-09-H1-000-S0

LC-L-SH-73-12-12-09-H1-000-S0 heatshrink
heatshrink LC-R-SH-73-12-12-09-H1-000-S0

Coloured pigtails - according to TIA colour code - heatshrink only

LC-L-SH-70-12-12-09-H1-040-S0 heatshrink
heatshrink LC-R-SH-70-12-12-09-H1-040-S0

LC-L-SH-73-12-12-09-H1-040-S0 heatshrink
heatshrink LC-R-SH-73-12-12-09-H1-040-S0

LISA splicing cassette E-2000 according to DIN colour code




















12x E-2000 24x E-2000

LC-L-SH-93-12-12-09-H1-020-B0 heatshrink
heatshrink LC-R-SH-93-12-12-09-H1-020-B0

LC-L-SH-98-12-24-09-H1-020-B0 heatshrink
heatshrink LC-R-SH-98-12-24-09-H1-020-B0

Ordering information

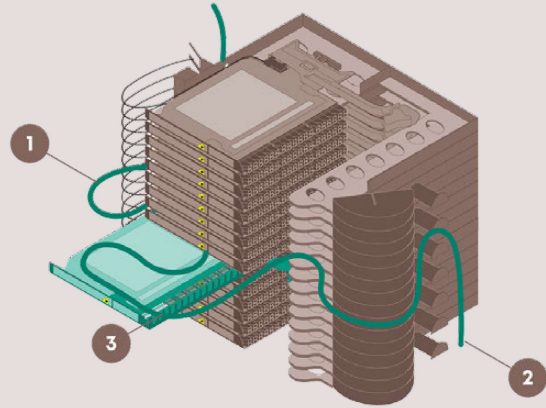
#	Item number	Descriptive code	Item text	LT	URL
1	85088494	LC-L-SH-70-12-12-09-H1-00O-S0	LISA splicing cassette SC LEFT, 12 fibers, SC UPC, no colour code, heatshrink, singlemode		
	on request	LC-R-SH-70-12-12-09-H1-00O-S0	LISA splicing cassette SC RIGHT, 12 fibers, SC UPC, no colour code, heatshrink, singlemode		
2	85137709	LC-L-SH-73-12-12-09-H1-00O-B0	LISA splicing cassette SC LEFT, 12 fibers, SC APC, no colour code, heatshrink, singlemode		
	on request	LC-R-SH-73-12-12-09-H1-00O-B0	LISA splicing cassette SC RIGHT, 12 fibers, SC APC, no colour code, heatshrink, singlemode		
3	on request	LC-L-SH-70-12-12-09-H1-04O-S0	LISA splicing cassette SC LEFT, 12 fibers, SC UPC, TIA colour code, heatshrink, singlemode		
	on request	LC-R-SH-70-12-12-09-H1-04O-S0	LISA splicing cassette SC RIGHT, 12 fibers, SC UPC, TIA colour code, heatshrink, singlemode		
4	85125204	LC-L-SH-73-12-12-09-H1-04O-S0	LISA splicing cassette SC LEFT, 12 fibers, SC APC, TIA colour code, heatshrink, singlemode		
	on request	LC-R-SH-73-12-12-09-H1-04O-S0	LISA splicing cassette SC RIGHT, 12 fibers, SC APC, TIA colour code, heatshrink, singlemode		
5	85088089	LC-L-SH-93-12-12-09-H1-02O-B0	LISA splicing cassette E-2000 LEFT, 12 fibers, E-2000 APC, DIN colour code, heatshrink, singlemode		
	on request	LC-R-SH-93-12-12-09-H1-02O-B0	LISA splicing cassette E-2000 RIGHT, 12 fibers, E-2000 APC, DIN colour code, heatshrink, singlemode		
6	85127357	LC-L-SH-98-12-24-09-H1-02O-B0	LISA splicing cassette E-2000 LEFT, 24 fibers, E-2000 APC duplex, DIN colour code, heatshrink, singlemode		
	on request	LC-R-SH-98-12-24-09-H1-02O-B0	LISA splicing cassette E-2000 RIGHT, 24 fibers, E-2000 APC duplex, DIN colour code, heatshrink, singlemode		

LISA splicing through

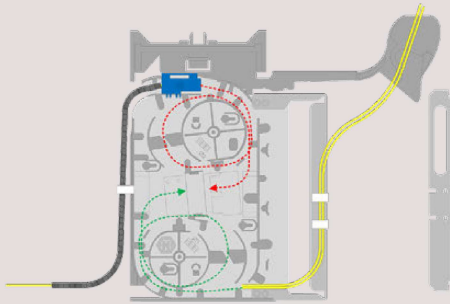
LISA splicing through cassette applications

This product allows two cables to be directly spliced, or a cable spliced to patch cables (duplex or simplex). The result splice connection is protected by the cassette which provides additional safety for critical links.

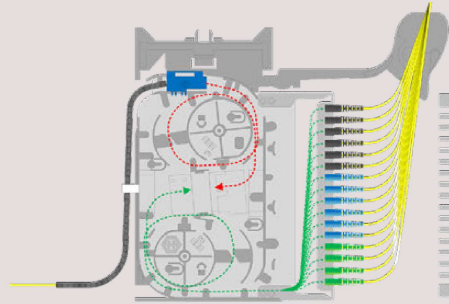
- (1) Outgoing cable
- (2) Incoming cable or patch cord
- (3) No connector (fixation plate instead)



Option 1



Option 2



Splicing **to multi-fiber** cables:

- max 36 splices per cassette

Splicing **to patch** cables:

- 16x patch cables per cassette max
- Cable relief clamps and boots not included, must be ordered separately



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GPSoF

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IANOS

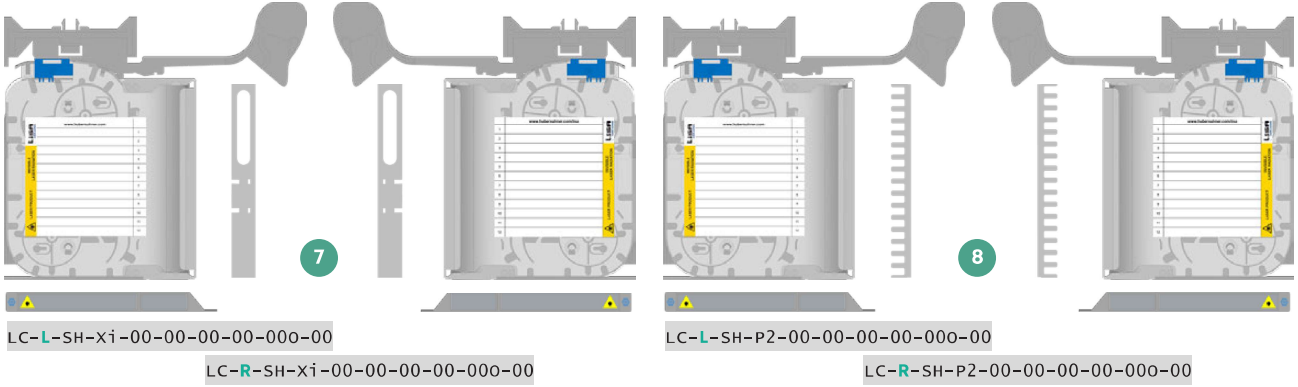
SYLFA HD

ZDPHD

LISA splicing through cassettes

Multi-fiber cable splicing

Patch cable splicing

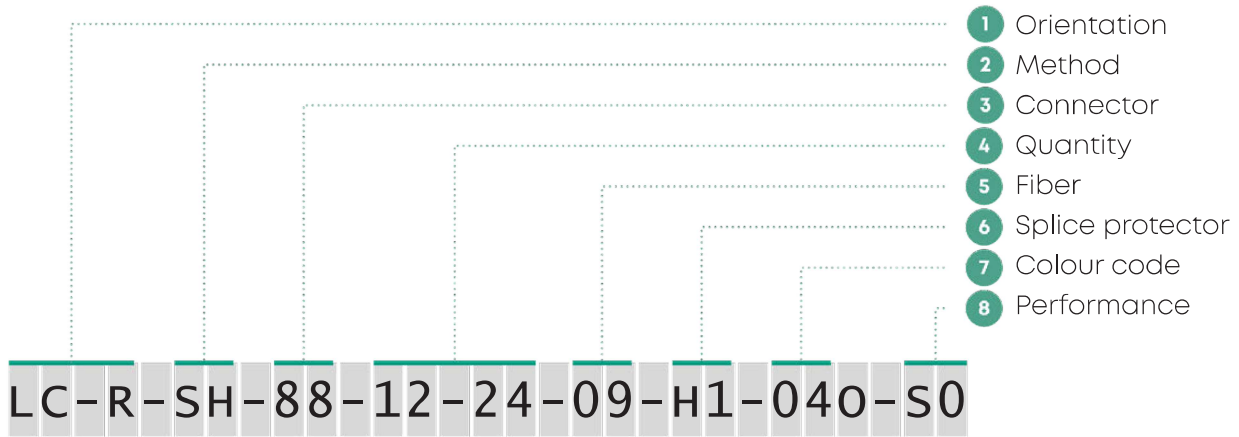


Ordering information

#	Item number	Descriptive code	Item text	LT
1	85103773	LC-L-SH-Xi-00-24-00-H1-000-00	LISA splicing through LEFT, for Optipack cable splicing	
	85147644	LC-R-SH-Xi-00-24-00-H1-000-00	LISA splicing through RIGHT, for Optipack cable splicing	
2	on request	LC-L-SH-P2-00-00-00-00-000-00	LISA splicing through LEFT, for patch cord splicing	
	on request	LC-R-SH-P2-00-00-00-00-000-00	LISA splicing through RIGHT, for patch cord splicing	

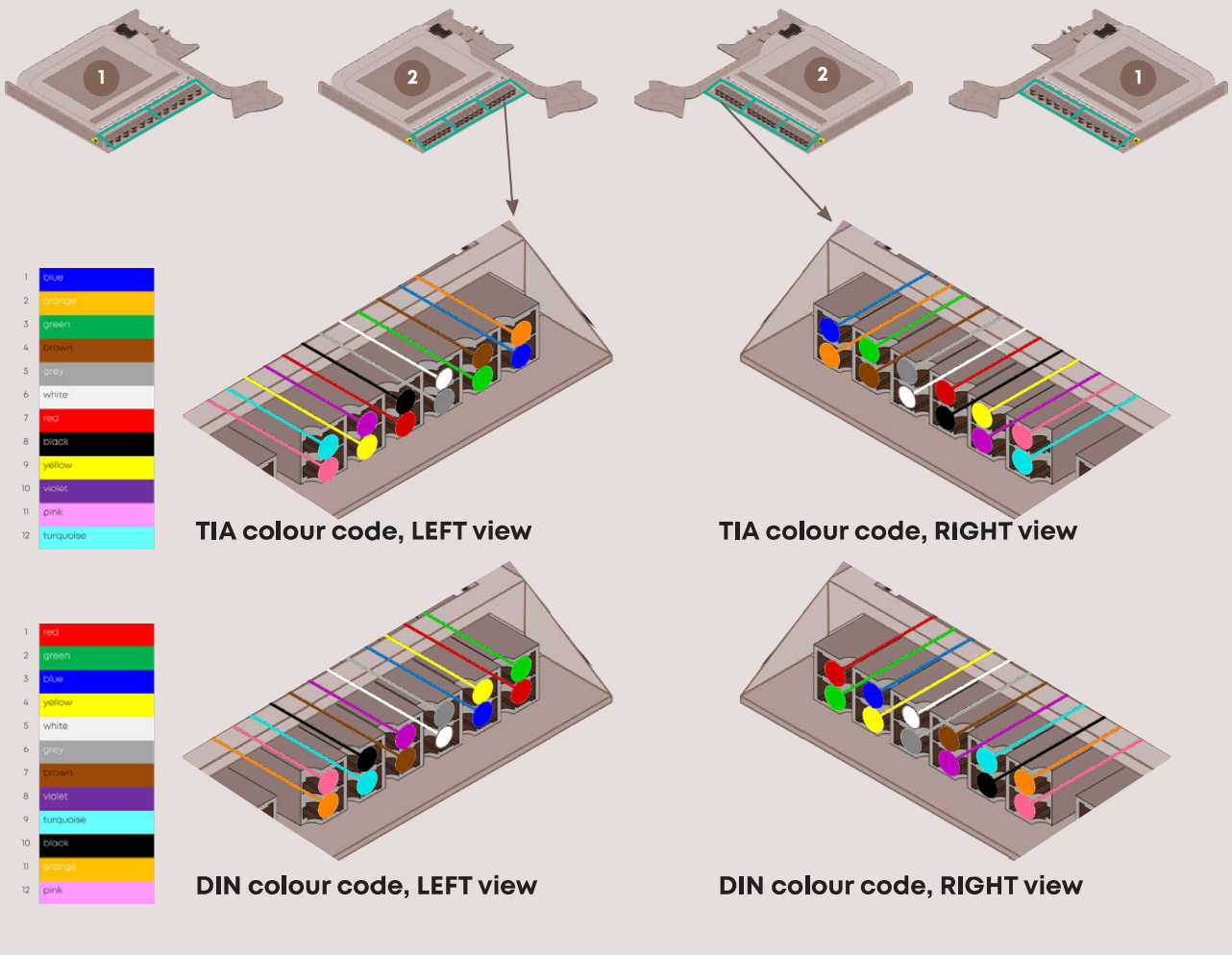
Order code LISA splicing

Order code LISA splicing cassette



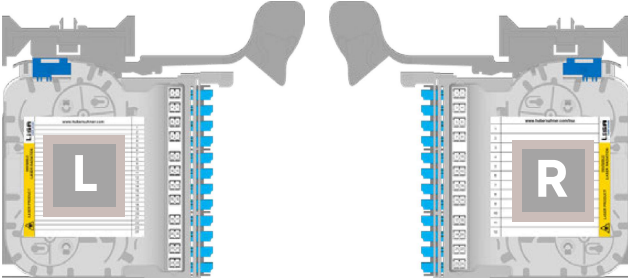
LISA splicing cassette colour code

- (1) 24 fiber cassette - 2x pigtail sets
- (2) 36 fiber cassette - 3x pigtail sets



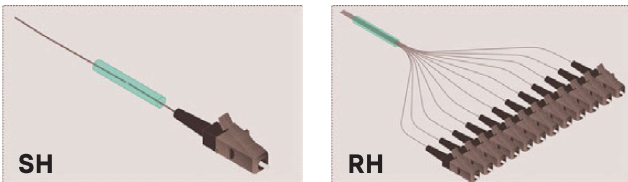
1 Orientation

LC-L LISA cassette LEFT L
 LC-R LISA cassette RIGHT R



2 Splicing method

SH LISA cassette single (individual) pigtail splicing
 RH LISA cassette ribbon pigtail splicing



3 Connector (adapter) type

00	No adapter	
88	LC UPC duplex (max 18x)	
89	LC APC duplex (max. 18x)	
70	SC UPC simplex (max. 12x)	
73	SC APC simplex (max. 12x)	
90	E-2000 UPC simplex (max. 12x)	
93	E-2000 APC simplex (max. 12x)	
97	E-2000 UPC duplex (max. 12x)	
98	E-2000 APC duplex (max. 12x)	
Xi	No adapter, multi-fiber cable splice-through	
P2	No adapter, patch cable splice-through	

4 Quantity

12-24

Number of pigtails

Number of pigtails shouldn't exceed possible number of connectors

Number of adapters

LISA cassette can be not fully equipped with adapters. Maximum number of adapters depends on adapter type. For example, 18x LC duplex adapters.

5 Fiber

00	No fiber (e.g. splice-through)	
09	Singlemode G.652.D	
54	Multimode OM4	

6 Splice protector

00	No splice holder and protectors
S0	Sandwich splice protector (excl. protectors)
S1	Sandwich splice protector (incl. protectors)
H0	Heatshrink splice holder Ø1.5 x 40 mm or Ø5 x 40 mm ribbon (excl. protectors)
H1	Heatshrink splice holder Ø1.5 x 40 mm or Ø5 x 40 mm ribbon (incl. protectors)

See other splice holder and splice protector options [↗](#)

7 Colour code

00	No colour code - all pigtails same colour
02	DIN colour code
04	TIA colour code

See colour code overview [↗](#)

8 Optical performance

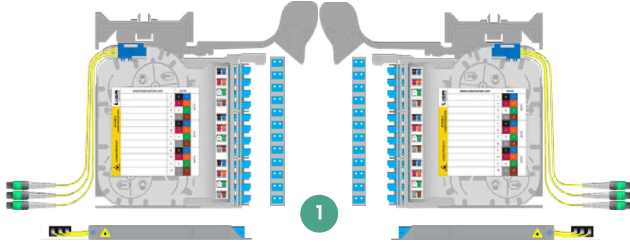
00	No fiber	
S0	Class S – Singlemode standard	
B0	Class B – Singlemode B	
L0	Class L – Multimode low-loss	
M0	Class M – Multimode standard	

LISA MTP cassettes Base-8

MTP to LCd, Base-8, SM UPC



12x LCd, 24x fiber



LC-L-MH-88-12-24-09-F8-NSO-SB

LC-R-MH-88-12-24-09-F8-NSO-SB

16x LCd, 32x fiber



LC-L-MH-88-16-32-09-F8-NSO-SB

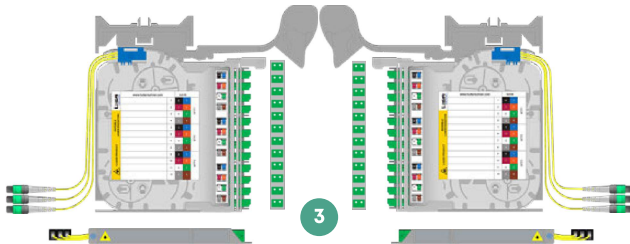
LC-R-MH-88-16-32-09-F8-NSO-SB

16x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-8, SM APC



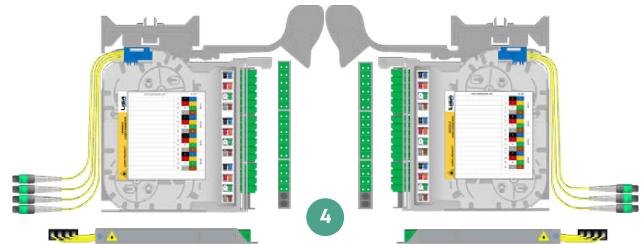
12x LCd, 24x fiber



LC-L-MH-89-12-24-09-F8-NSO-SB

LC-R-MH-89-12-24-09-F8-NSO-SB

16x LCd, 32x fiber



LC-L-MH-89-16-32-09-F8-NSO-SB

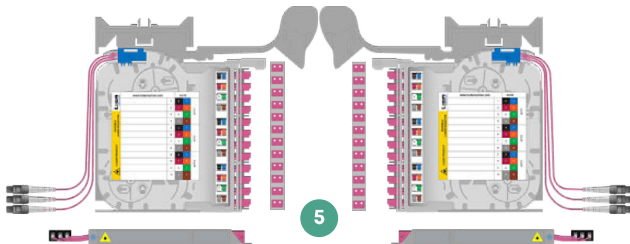
LC-R-MH-89-16-32-09-F8-NSO-SB

16x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-8, OM4



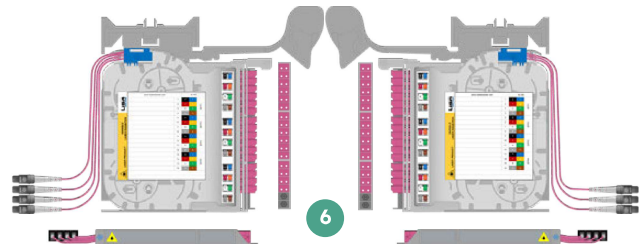
12x LCd, 24x fiber



LC-L-MH-88-12-24-54-F8-NSO-LL

LC-R-MH-88-12-24-54-F8-NSO-LL

16x LCd, 32x fiber



LC-L-MH-88-16-32-54-F8-NSO-LL

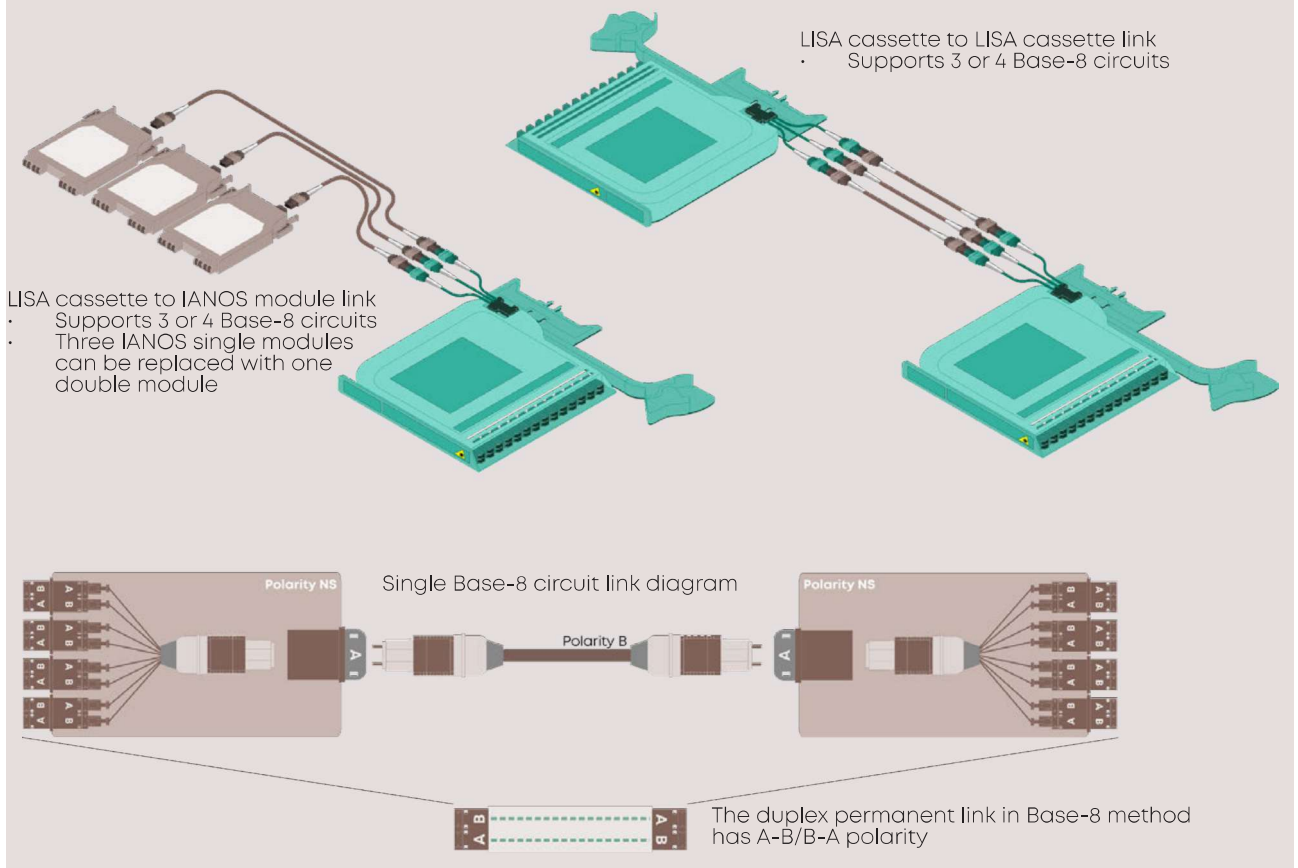
LC-R-MH-88-16-32-54-F8-NSO-LL

16x LCd supports LC-XD or LC uniboot patch cords only

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85124911	LC-L-MH-88-12-24-09-F8-NSO-SB	LISA MTP transition cassette LEFT, Base-8, 12x LCd UPC, 24 fibers, 3x MTP female, polarity NS, singlemode		
	85156995	LC-R-MH-88-12-24-09-F8-NSO-SB	LISA MTP transition cassette RIGHT, Base-8, 12x LCd UPC, 24 fibers, 3x MTP female, polarity NS, singlemode		
2	on request	LC-L-MH-88-16-32-09-F8-NSO-SB	LISA MTP transition cassette LEFT, Base-8, 16x LCd UPC, 32 fibers, 4x MTP female, polarity NS, singlemode		
	on request	LC-R-MH-88-16-32-09-F8-NSO-SB	LISA MTP transition cassette RIGHT, Base-8, 16x LCd UPC, 32 fibers, 4x MTP female, polarity NS, singlemode		
3	85088657	LC-L-MH-89-12-24-09-F8-NSO-SB	LISA MTP transition cassette LEFT, Base-8, 12x LCd APC, 24 fibers, 3x MTP female, polarity NS, singlemode		
	85144815	LC-R-MH-89-12-24-09-F8-NSO-SB	LISA MTP transition cassette RIGHT, Base-8, 12x LCd APC, 24 fibers, 3x MTP female, polarity NS, singlemode		
4	on request	LC-L-MH-89-16-32-09-F8-NSO-SB	LISA MTP transition cassette LEFT, Base-8, 16x LCd APC, 32 fibers, 4x MTP female, polarity NS, singlemode		
	on request	LC-R-MH-89-16-32-09-F8-NSO-SB	LISA MTP transition cassette RIGHT, Base-8, 16x LCd APC, 32 fibers, 4x MTP female, polarity NS, singlemode		
5	85088659	LC-L-MH-88-12-24-54-F8-NSO-LL	LISA MTP transition cassette LEFT, Base-8, 12x LCd, 24 fibers, 3x MTP female, polarity NS, multimode OM4		
	85111139	LC-R-MH-88-12-24-54-F8-NSO-LL	LISA MTP transition cassette RIGHT, Base-8, 12x LCd, 24 fibers, 3x MTP female, polarity NS, multimode OM4		
6	on request	LC-L-MH-88-16-32-54-F8-NSO-LL	LISA MTP transition cassette LEFT, Base-8, 16x LCd, 32 fibers, 4x MTP female, polarity NS, multimode OM4		
	on request	LC-R-MH-88-16-32-54-F8-NSO-LL	LISA MTP transition cassette RIGHT, Base-8, 16x LCd, 32 fibers, 4x MTP female, polarity NS, multimode OM4		

Permanent links with LISA MTP transition Base-8

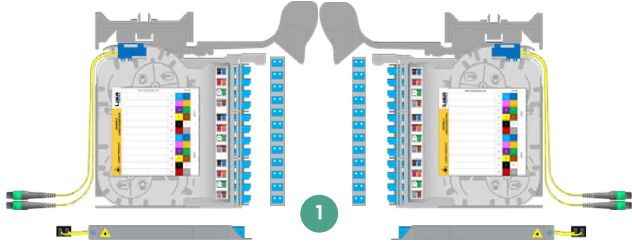


LISA MTP cassettes Base-12e

MTP to LCd, Base-12e, SM UPC



12x LCd, 24x fiber



LC-L-MH-88-12-24-09-F1-NSO-SB

LC-R-MH-88-12-24-09-F1-NSO-SB

18x LCd, 36x fiber



LC-L-MH-88-18-36-09-F1-NSO-SB

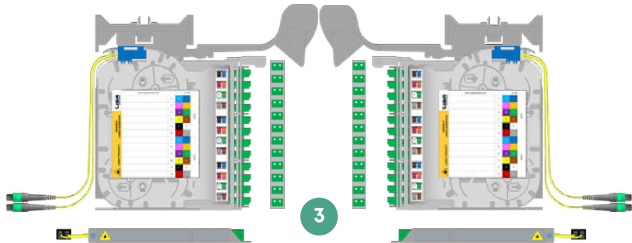
LC-R-MH-88-18-36-09-F1-NSO-SB

18x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-12e, SM APC



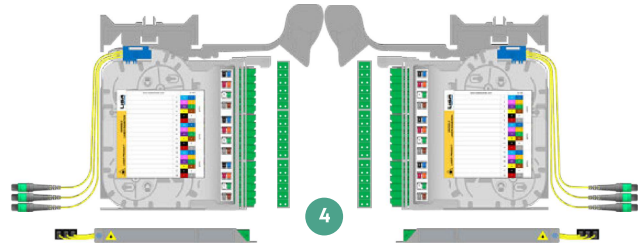
12x LCd, 24x fiber



LC-L-MH-89-12-24-09-F1-NSO-SB

LC-R-MH-89-12-24-09-F1-NSO-SB

18x LCd, 36x fiber



LC-L-MH-89-18-36-09-F1-NSO-SB

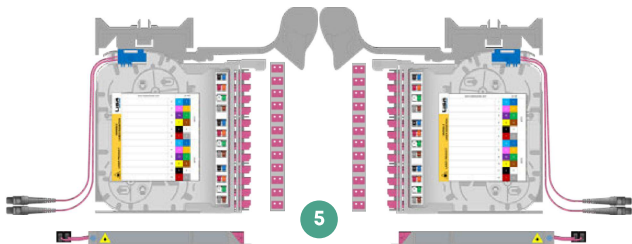
LC-R-MH-89-18-36-09-F1-NSO-SB

18x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-12e, OM4



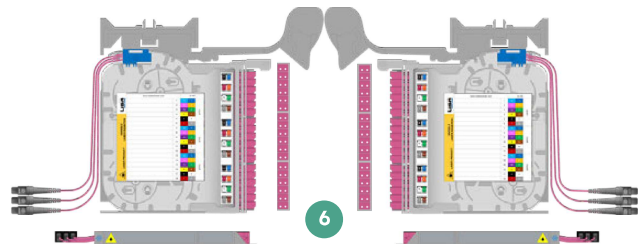
12x LCd, 24x fiber



LC-L-MH-88-12-24-54-F1-NSO-LL

LC-R-MH-88-12-24-54-F1-NSO-LL

18x LCd, 36x fiber



LC-L-MH-88-18-36-54-F1-NSO-LL

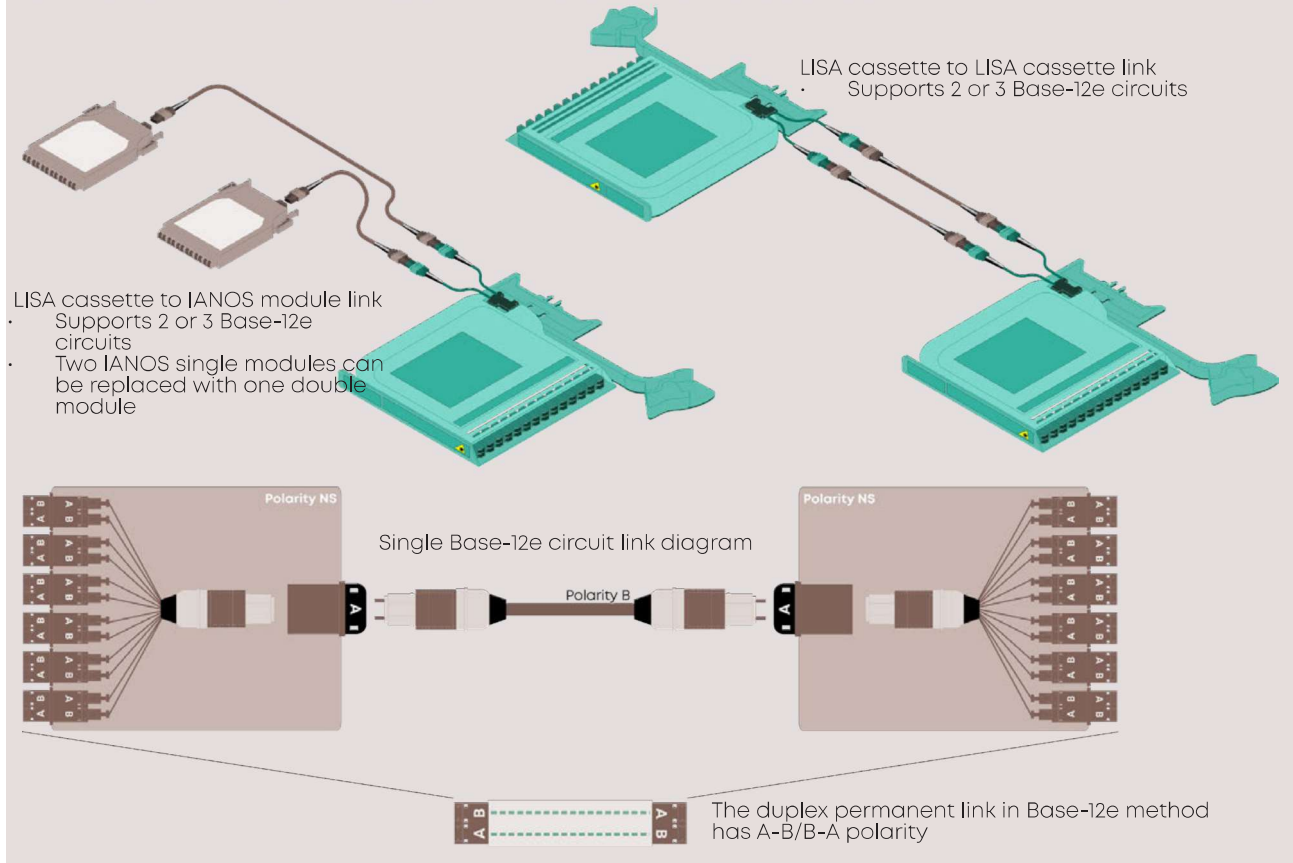
LC-R-MH-88-18-36-54-F1-NSO-LL

18x LCd supports LC-XD or LC uniboot patch cords only

Ordering information

#	Item number	Descriptive code	Item text	LT
1	85156993	LC-L-MH-88-12-24-09-FI-NSO-SB	LISA MTP transition cassette LEFT, Base-12e, 12x LCd UPC, 24 fibers, 2x MTP female, polarity NS, singlemode	
	85156994	LC-R-MH-88-12-24-09-FI-NSO-SB	LISA MTP transition cassette RIGHT, Base-12e, 12x LCd UPC, 24 fibers, 2x MTP female, polarity NS, singlemode	
2	85156990	LC-L-MH-88-18-36-09-FI-NSO-SB	LISA MTP transition cassette LEFT, Base-12e, 18x LCd UPC, 36 fibers, 3x MTP female, polarity NS, singlemode	
	85156992	LC-R-MH-88-18-36-09-FI-NSO-SB	LISA MTP transition cassette RIGHT, Base-12e, 18x LCd UPC, 36 fibers, 3x MTP female, polarity NS, singlemode	
3	85163202	LC-L-MH-89-12-24-09-FI-NSO-SB	LISA MTP transition cassette LEFT, Base-12e, 12x LCd APC, 24 fibers, 2x MTP female, polarity NS, singlemode	
	85163203	LC-R-MH-89-12-24-09-FI-NSO-SB	LISA MTP transition cassette RIGHT, Base-12e, 12x LCd APC, 24 fibers, 2x MTP female, polarity NS, singlemode	
4	85163200	LC-L-MH-89-18-36-09-FI-NSO-SB	LISA MTP transition cassette LEFT, Base-12e, 18x LCd APC, 36 fibers, 3x MTP female, polarity NS, singlemode	
	85163201	LC-R-MH-89-18-36-09-FI-NSO-SB	LISA MTP transition cassette RIGHT, Base-12e, 18x LCd APC, 36 fibers, 3x MTP female, polarity NS, singlemode	
5	85166339	LC-L-MH-88-12-24-54-FI-NSO-LL	LISA MTP transition cassette LEFT, Base-12e, 12x LCd, 24 fibers, 2x MTP female, polarity NS, multimode OM4	
	on request	LC-R-MH-88-12-24-54-FI-NSO-LL	LISA MTP transition cassette RIGHT, Base-12e, 12x LCd, 24 fibers, 2x MTP female, polarity NS, multimode OM4	
6	on request	LC-L-MH-88-18-36-54-FI-NSO-LL	LISA MTP transition cassette LEFT, Base-12e, 18x LCd, 36 fibers, 3x MTP female, polarity NS, multimode OM4	
	on request	LC-R-MH-88-18-36-54-FI-NSO-LL	LISA MTP transition cassette RIGHT, Base-12e, 18x LCd, 36 fibers, 3x MTP female, polarity NS, multimode OM4	

Permanent links with LISA MTP transition Base-12e

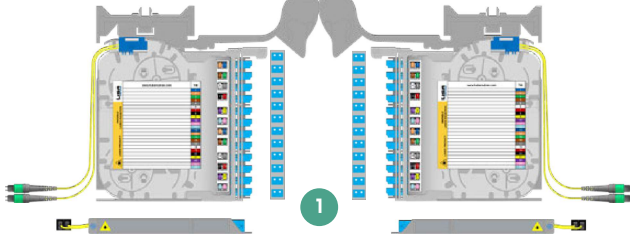


LISA MTP cassettes Base-12

MTP to LCd, Base-12, SM UPC



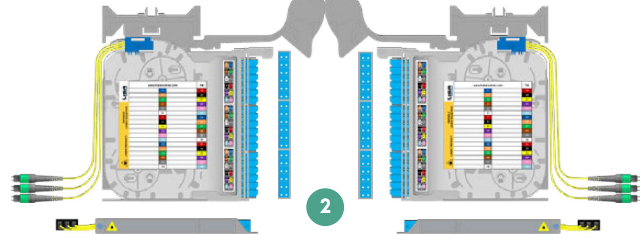
12x LCd, 24x fiber



LC-L-MH-88-12-24-09-M1-ASO-SB

LC-R-MH-88-12-24-09-M1-ASO-SB

18x LCd, 36x fiber



LC-L-MH-88-18-36-09-M1-ASO-SB

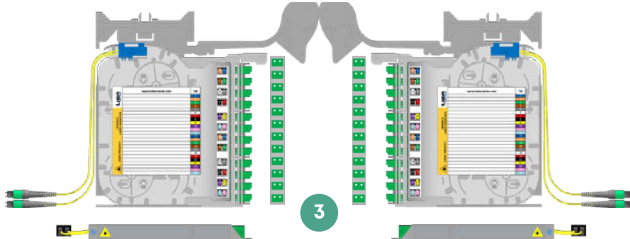
LC-R-MH-88-18-36-09-M1-ASO-SB

18x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-12, SM APC



12x LCd, 24x fiber



LC-L-MH-89-12-24-09-M1-ASO-SB

LC-R-MH-89-12-24-09-M1-ASO-SB

18x LCd, 36x fiber



LC-L-MH-89-18-36-09-M1-ASO-SB

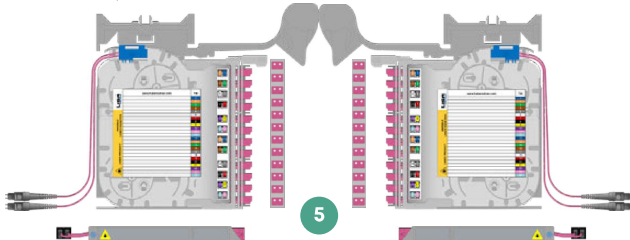
LC-R-MH-89-18-36-09-M1-ASO-SB

18x LCd supports LC-XD or LC uniboot patch cords only

MTP to LCd, Base-12, OM4



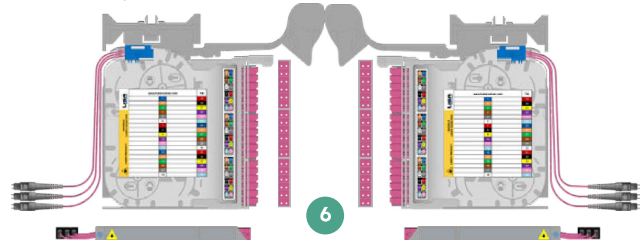
12x LCd, 24x fiber



LC-L-MH-88-12-24-54-M1-ASO-LL

LC-R-MH-88-12-24-54-M1-ASO-LL

18x LCd, 36x fiber



LC-L-MH-88-18-36-54-M1-ASO-LL

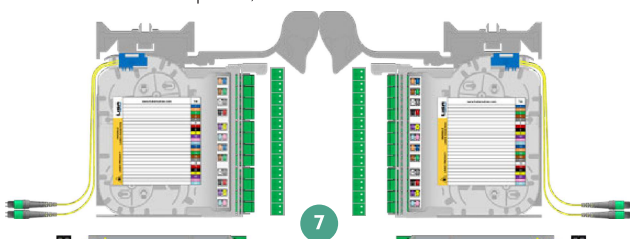
LC-R-MH-88-18-36-54-M1-ASO-LL

18x LCd supports LC-XD or LC uniboot patch cords only

MTP to E-2000, Base-12, SM APC



12x E-2000 duplex, 24x fiber



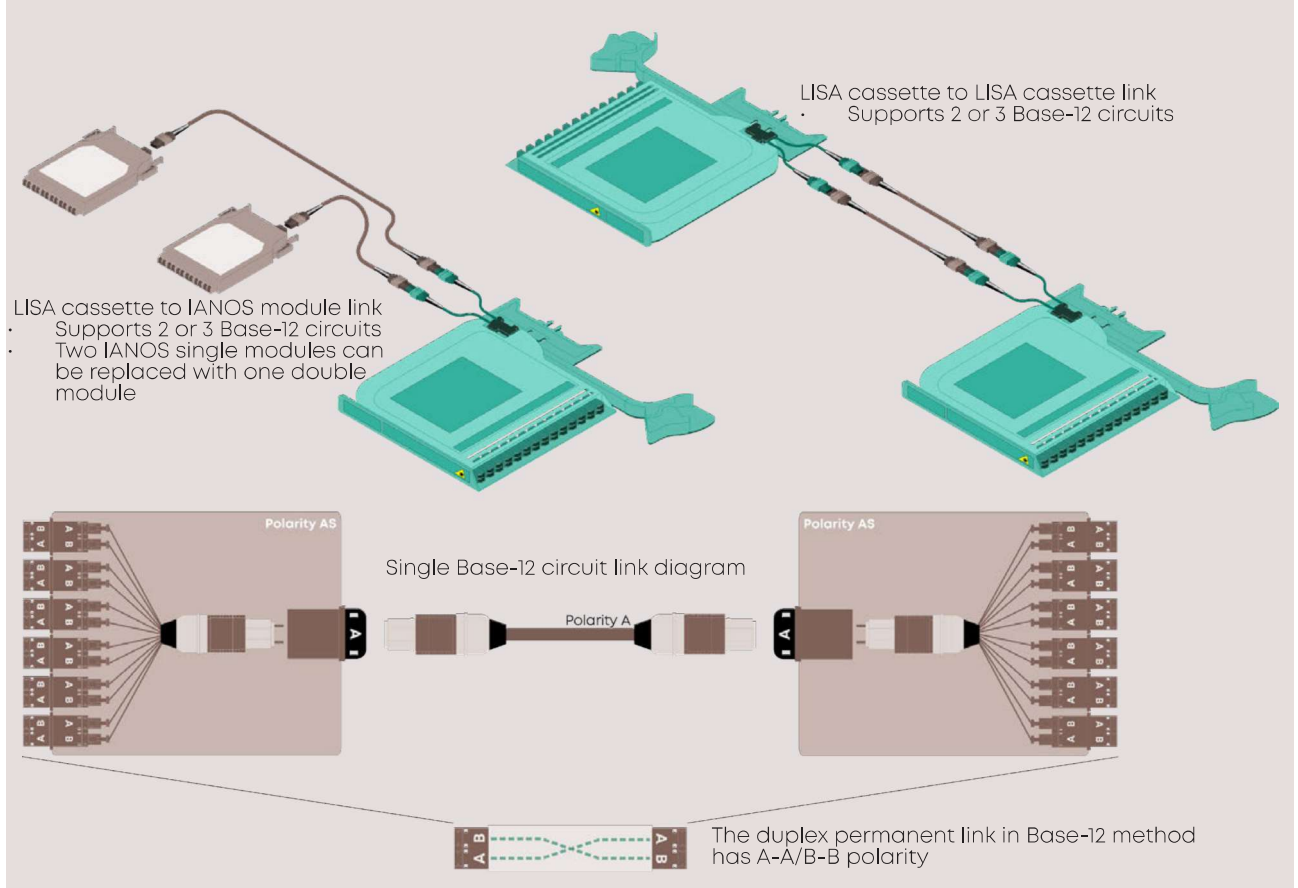
LC-L-MH-98-12-24-09-M1-ASS-BB

LC-R-MH-98-12-24-09-M1-ASS-BB

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85086075	LC-L-MH-88-12-24-09-M1-ASO-SB	LISA MTP transition cassette LEFT, Base-12, 12x LCd UPC, 24 fibers, 2x MTP male, polarity AS, singlemode	★	↗
	85116040	LC-R-MH-88-12-24-09-M1-ASO-SB	LISA MTP transition cassette RIGHT, Base-12, 12x LCd UPC, 24 fibers, 2x MTP male, polarity AS, singlemode	🕒	↗
2	85092876	LC-L-MH-88-18-36-09-M1-ASO-SB	LISA MTP transition cassette LEFT, Base-12, 18x LCd UPC, 36 fibers, 3x MTP male, polarity AS, singlemode	★	↗
	85111133	LC-R-MH-88-18-36-09-M1-ASO-SB	LISA MTP transition cassette RIGHT, Base-12, 18x LCd UPC, 36 fibers, 3x MTP male, polarity AS, singlemode	🕒	
3	85088660	LC-L-MH-89-12-24-09-M1-ASO-SB	LISA MTP transition cassette LEFT, Base-12, 12x LCd APC, 24 fibers, 2x MTP male, polarity AS, singlemode	🕒	↗
	85148688	LC-R-MH-89-12-24-09-M1-ASO-SB	LISA MTP transition cassette RIGHT, Base-12, 12x LCd APC, 24 fibers, 2x MTP male, polarity AS, singlemode	🕒	↗
4	85088080	LC-L-MH-89-18-36-09-M1-ASO-SB	LISA MTP transition cassette LEFT, Base-12, 18x LCd APC, 36 fibers, 3x MTP male, polarity AS, singlemode	🕒	↗
	85146150	LC-R-MH-89-18-36-09-M1-ASO-SB	LISA MTP transition cassette RIGHT, Base-12, 18x LCd APC, 36 fibers, 3x MTP male, polarity AS, singlemode	🕒	
5	85088662	LC-L-MH-88-12-24-54-M1-ASO-LL	LISA MTP transition cassette LEFT, Base-12, 12x LCd, 24 fibers, 2x MTP male, polarity AS, multimode OM4	🕒	↗
	85154351	LC-R-MH-88-12-24-54-M1-ASO-LL	LISA MTP transition cassette RIGHT, Base-12, 12x LCd, 24 fibers, 2x MTP male, polarity AS, multimode OM4	🕒	
6	85117583	LC-L-MH-88-18-36-54-M1-ASO-LL	LISA MTP transition cassette LEFT, Base-12, 18x LCd, 36 fibers, 3x MTP male, polarity AS, multimode OM4	🕒	
	on request	LC-R-MH-88-18-36-54-M1-ASO-LL	LISA MTP transition cassette RIGHT, Base-12, 18x LCd, 36 fibers, 3x MTP male, polarity AS, multimode OM4	🕒	
7	on request	LC-L-MH-98-12-24-09-M1-ASS-BB	LISA MTP transition cassette LEFT, Base-12, 12x E-2000d APC, 24f, 2x MTP male, polarity AS, singlemode	🕒	
	on request	LC-R-MH-98-12-24-09-M1-ASS-BB	LISA MTP transition cassette RIGHT, Base-12, 12x E-2000d APC, 24f, 2x MTP male, polarity AS, singlemode	🕒	

Permanent links with LISA MTP transition Base-12



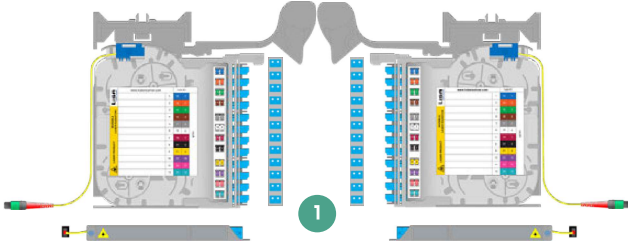
LISA MTP cassettes Base-24

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24  **L** **R**

MTP to LCd, Base-24, SM UPC

12x LCd, 24x fiber



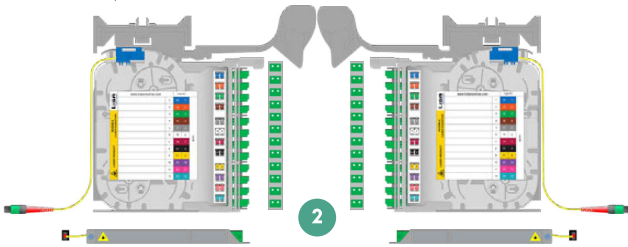
LC-L-MH-88-12-24-09-F2-R10-SB

LC-R-MH-88-12-24-09-F2-R10-SB

24  **L** **R**

MTP to LCd, Base-24, SM APC

12x LCd, 24x fiber



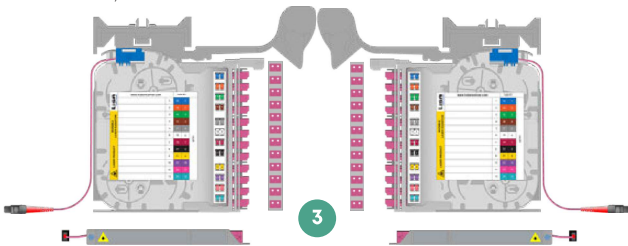
LC-L-MH-89-12-24-09-F2-R10-SB

LC-R-MH-89-12-24-09-F2-R10-SB

24  **L** **R**

MTP to LCd, Base-24, OM4

12x LCd, 24x fiber



LC-L-MH-88-12-24-54-F2-R10-LL

LC-R-MH-88-12-24-54-F2-R10-LL

LISA

IANOS

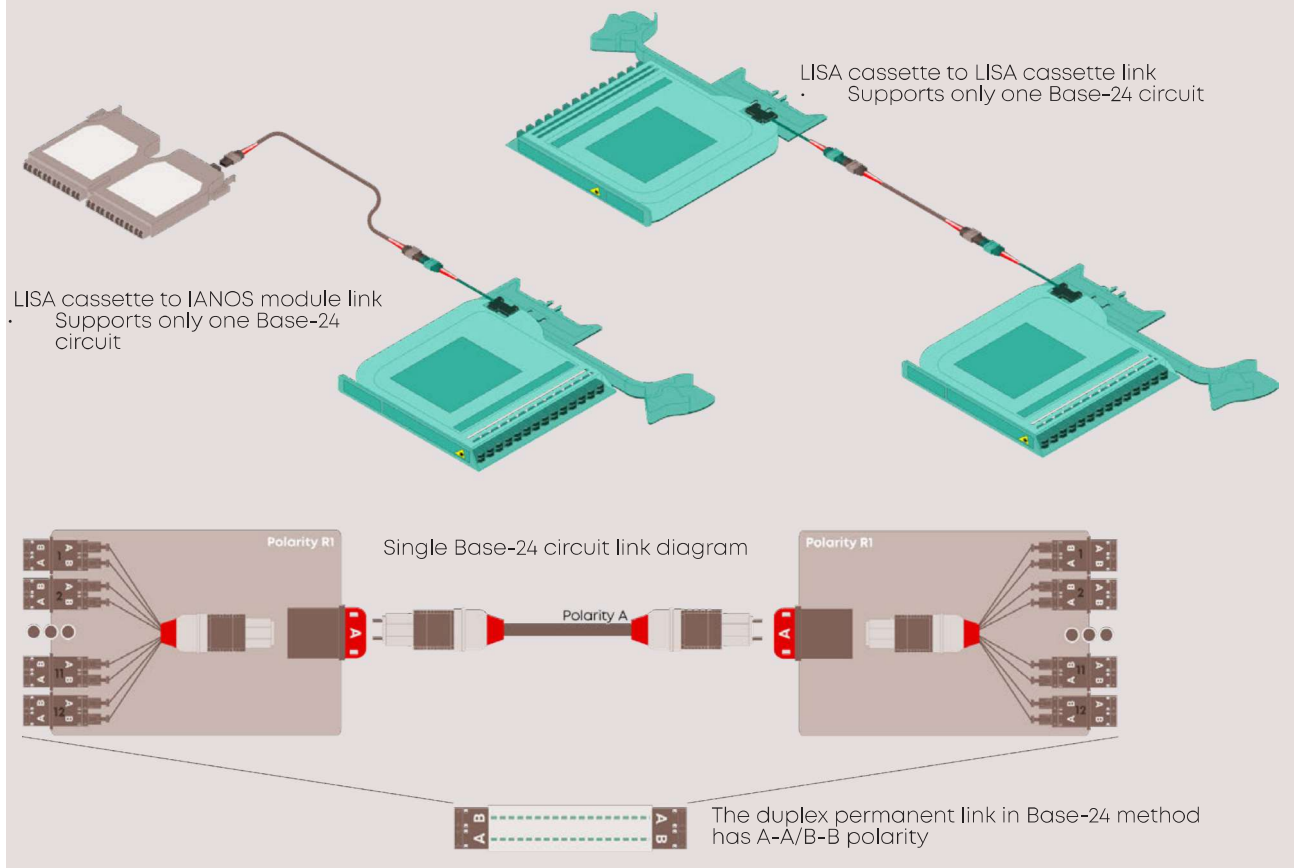
SYLFA HD

ZDPHD

Ordering information

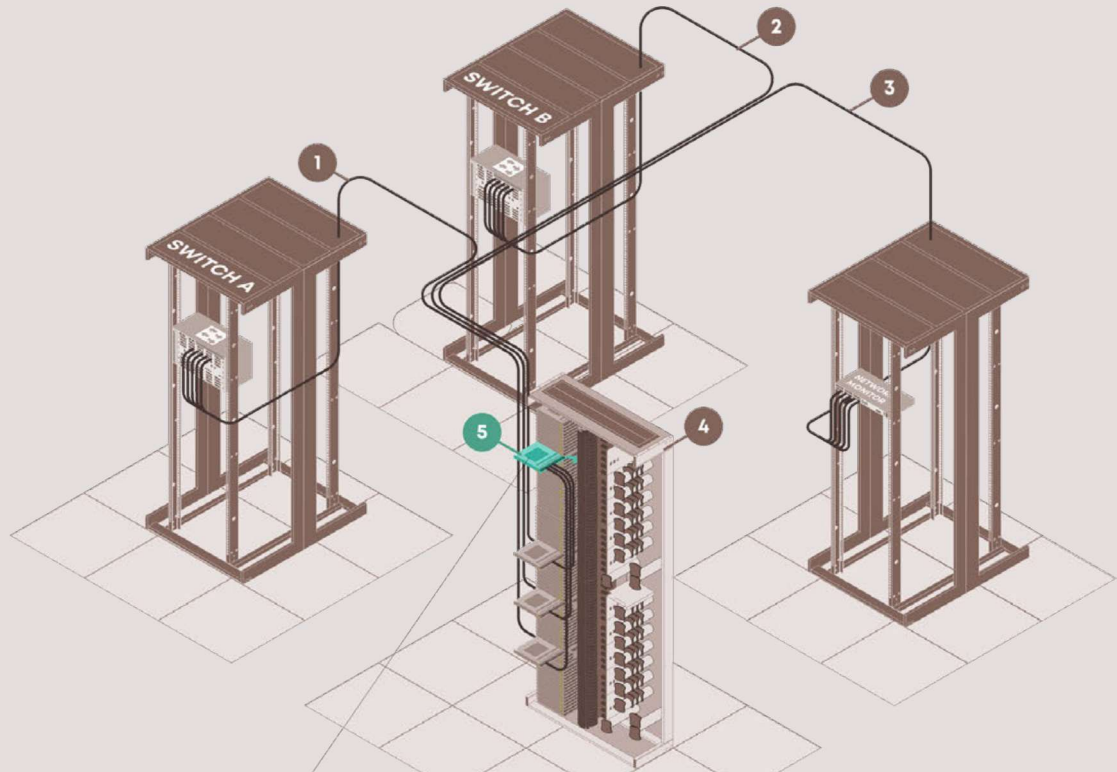
#	Item number	Descriptive code	Item text	LT	URL
1	85094161	LC-L-MH-88-12-24-09-F2-RIO-SB	LISA MTP transition cassette LEFT, Base-24, 12x LCd UPC, 24 fibers, 1x MTP female, polarity RI, singlemode		
	on request	LC-R-MH-88-12-24-09-F2-RIO-SB	LISA MTP transition cassette RIGHT, Base-24, 12x LCd UPC, 24 fibers, 1x MTP female, polarity RI, singlemode		
2	85088663	LC-L-MH-89-12-24-09-F2-RIO-SB	LISA MTP transition cassette LEFT, Base-24, 12x LCd APC, 24 fibers, 1x MTP female, polarity RI, singlemode		
	on request	LC-R-MH-89-12-24-09-F2-RIO-SB	LISA MTP transition cassette RIGHT, Base-24, 12x LCd APC, 24 fibers, 1x MTP female, polarity RI, singlemode		
3	85088671	LC-L-MH-88-12-24-54-F2-RIO-LL	LISA MTP transition cassette LEFT, Base-24, 12x LCd, 24 fibers, 1x MTP female, polarity RI, multimode OM4		
	on request	LC-R-MH-88-12-24-54-F2-RIO-LL	LISA MTP transition cassette RIGHT, Base-24, 12x LCd, 24 fibers, 1x MTP female, polarity RI, multimode OM4		

Permanent links with LISA MTP transition Base-24

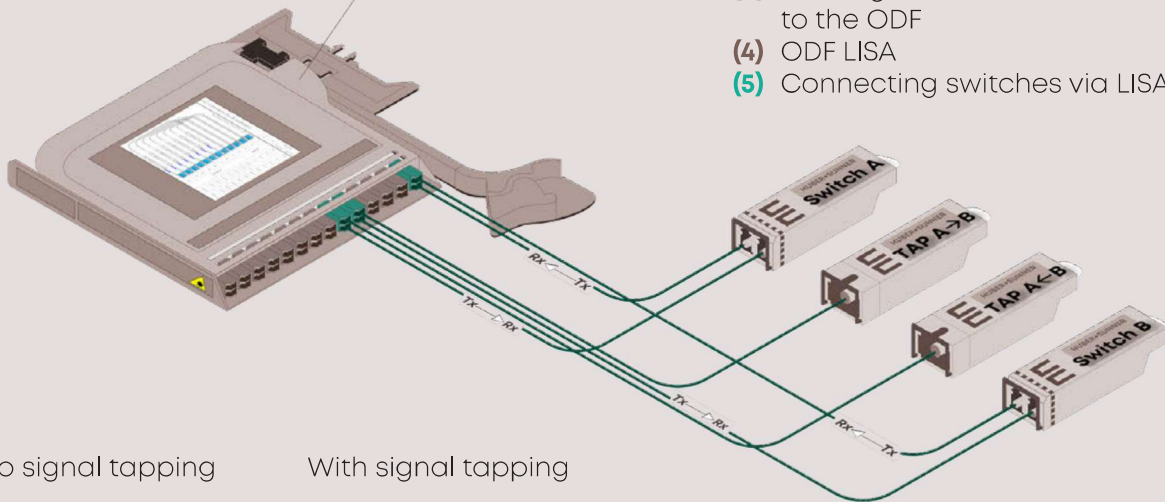


LISA TAP

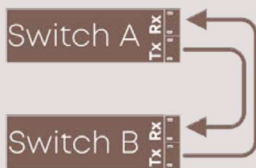
Cross-connecting two switches via LISA TAP



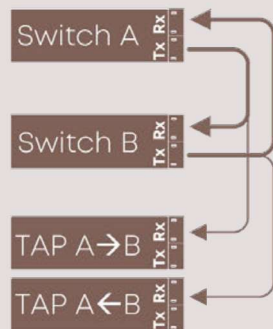
- (1) Cabling from switch A to the ODF
- (2) Cabling from switch B to the ODF
- (3) Cabling from network monitoring to the ODF
- (4) ODF LISA
- (5) Connecting switches via LISA TAP



No signal tapping



With signal tapping

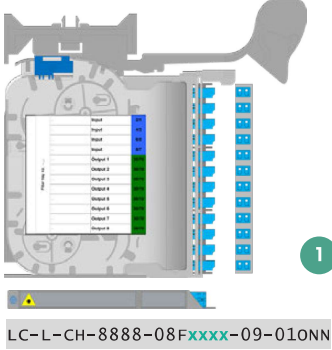


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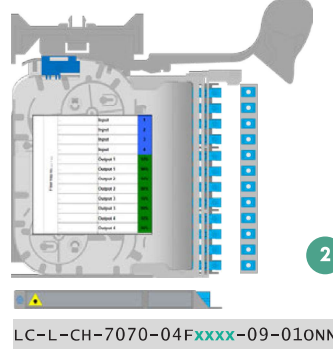
LISA TAP cassettes



LC connectivity



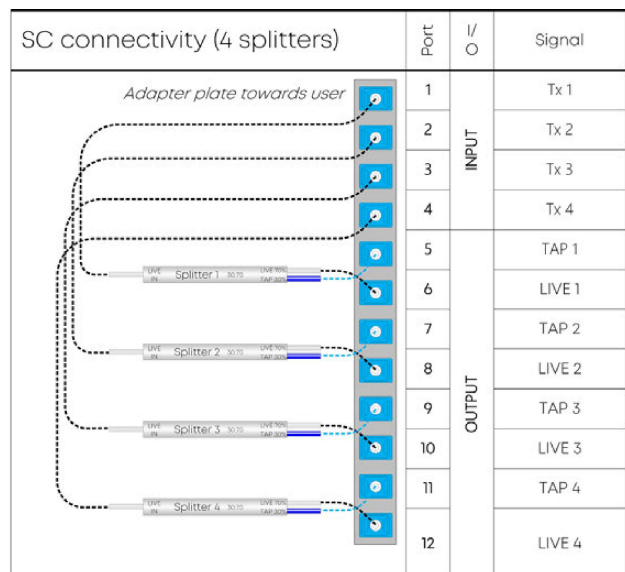
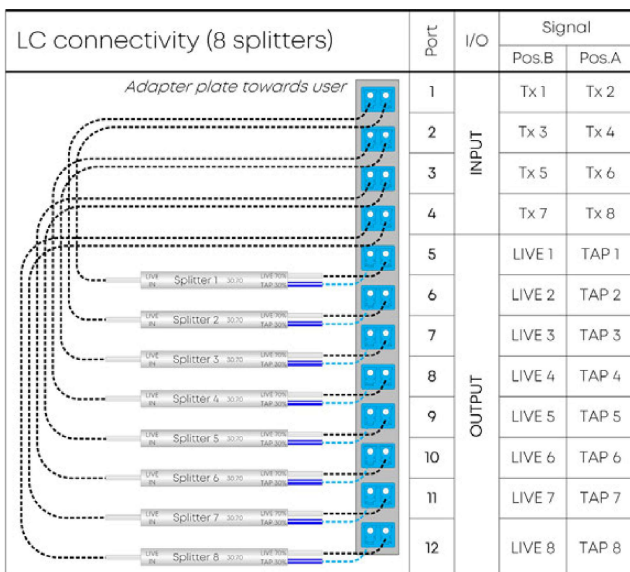
SC connectivity



Ordering information

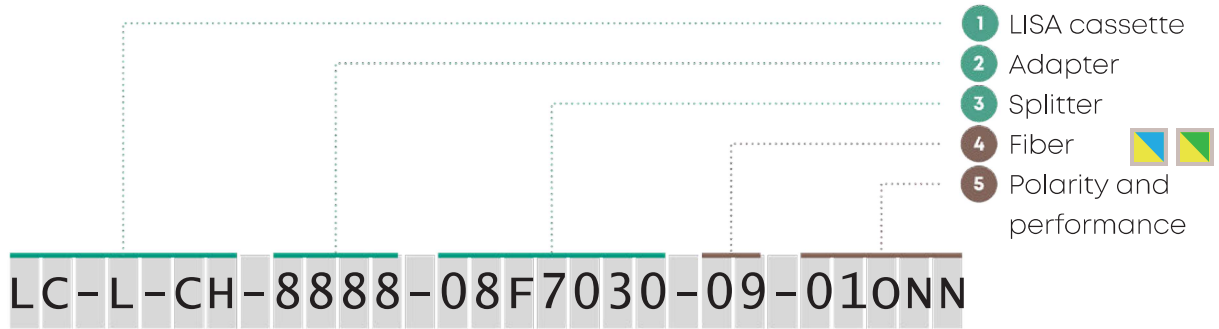
#	Item number	Descriptive code	Item text	LT	URL
1	85106062	LC-L-CH-8888-08F5050-09-010NN	LISA splitter cassette LEFT, 8 x 50:50 FBT splitters, 12 x LCD adaptor blue, OS2, UPC		
	85106063	LC-L-CH-8888-08F7030-09-010NN	LISA splitter cassette LEFT, 8 x 70:30 FBT splitters, 12 x LCD adaptor blue, OS2, UPC		
	on request	LC-L-CH-8888-08F8020-09-010NN	LISA splitter cassette LEFT, 8 x 80:20 FBT splitters, 12 x LCD adaptor blue, OS2, UPC		
	85106064	LC-L-CH-8888-08F9010-09-010NN	LISA splitter cassette LEFT, 8 x 90:10 FBT splitters, 12 x LCD adaptor blue, OS2, UPC		
2	85106061	LC-L-CH-7070-04F5050-09-010NN	LISA splitter cassette LEFT, 4 x 50:50 FBT splitters, 12 x SC adaptor blue, OS2, UPC		
	85099260	LC-L-CH-7070-04F7030-09-010NN	LISA splitter cassette LEFT, 4 x 70:30 FBT splitters, 12 x SC adaptor blue, OS2, UPC		
	85099259	LC-L-CH-7070-04F9010-09-010NN	LISA splitter cassette LEFT, 4 x 90:10 FBT splitters, 12 x SC adaptor blue, OS2, UPC		

LISA TAP fiber allocation



Order code LISA TAP

Order code LISA TAP cassette



1 LISA cassette type

LC-L-CH LISA TAP/splitter cassette LEFT **L**

LC-R-CH LISA TAP/splitter cassette RIGHT **R**

2 Adapter type

8888

Output adapter (LIVE & TAP)

Input adapter (Tx)

70	SC UPC singlemode		
73	SC APC singlemode		
88	LCd UPC singlemode		
89	LCd APC singlemode		

3 Splitter

08F7030

TAP configuration

5050	LIVE IN Splitter 1 50:50 LIVE 50% TAP 50%
6040	LIVE IN Splitter 1 40:60 LIVE 60% TAP 40%
7030	LIVE IN Splitter 1 30:70 LIVE 70% TAP 30%
8020	LIVE IN Splitter 1 20:80 LIVE 80% TAP 20%
9010	LIVE IN Splitter 1 10:90 LIVE 90% TAP 10%

FBT splitter (F)

Number of splitters

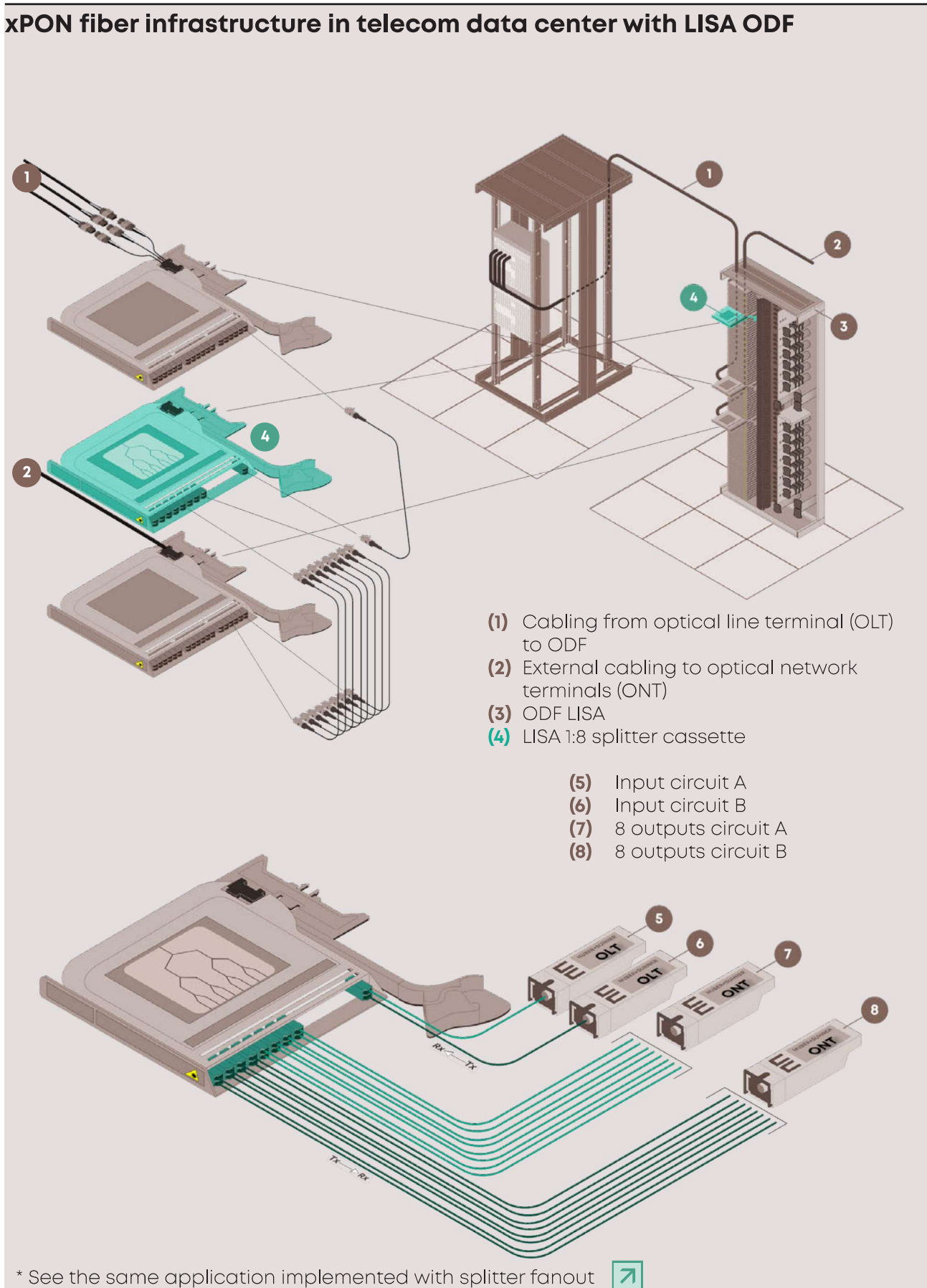
04 Maximum number of splitters (SC connectivity)

12 Maximum number of splitters (LCd connectivity)

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LISA splitter application

xPON fiber infrastructure in telecom data center with LISA ODF

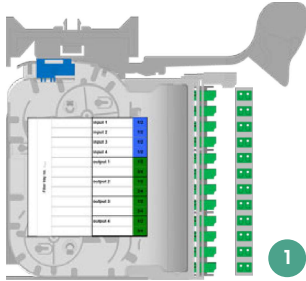


LISA splitter order information



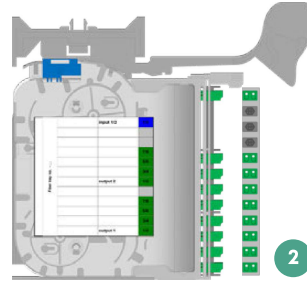
LISA splicing through cassettes

4 splitters 2x4



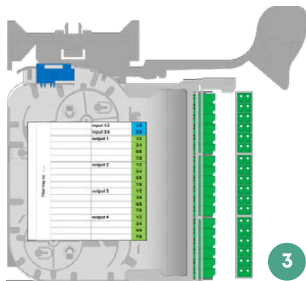
LC-L-CH-8989-04P2x04-09-04OA0

2 splitters 1x8



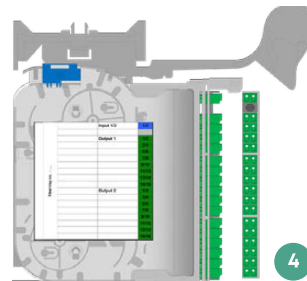
LC-L-CH-8989-02P1x08-09-04OA0

4 splitters 1x8



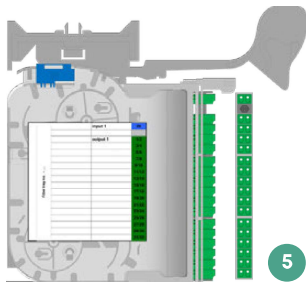
LC-L-CH-8989-04P1x08-09-04OA0

2 splitters 1x16



LC-L-CH-8989-02P1x16-09-04OA0

1 splitter 1x32



LC-L-CH-8989-01P1x32-09-04OA0

Ordering information

#	Item number	Descriptive code	Item text	LT	URL
1	85109593	LC-L-CH-8989-04P2x04-09-04OA0	LISA splitter cassette LEFT, 4 x 2:4 PLC splitter, 12 x LCD adaptor green, OS2, APC		
2	85088498	LC-L-CH-8989-02P1x08-09-04OA0	LISA splitter cassette LEFT, 2 x 1:8 PLC splitter, 9 x LCD adaptor green, OS2, APC		
3	85088500	LC-L-CH-8989-04P1x08-09-04OA0	LISA splitter cassette LEFT, 4 x 1:8 PLC splitter, 18 x LCD adaptor green, OS2, APC		
4	85109592	LC-L-CH-8989-02P1x16-09-04OA0	LISA splitter cassette LEFT, 2 x 1:16 PLC splitter, 18 x LCD adaptor green, OS2, APC		
5	85088499	LC-L-CH-8989-01P1x32-09-04OA0	LISA splitter cassette LEFT, 1 x 1:32 PLC splitter, 17 x LCD adaptor green, OS2, APC		