

# FACT Optical Distribution Frame Platform for APAC Ordering Guide



## **Document History**

Version	Date Issued	Author	Revision Details	
0.1	20/04/2020	Brian Workman	Initial Draft Release	
0.2	30/04/2020	Brian Workman	Updated to remove references to ANT Splice Holders	
0.3	01/05/2020	Brian Workman	Formatting updates	
0.4	06/05/2020	Brian Workman	Remove Class C fibre options, OM4 SC options and include more comprehensive description detailing total port counts for each chassis type and size	
0.5	18/05/2020	Brian Workman	Relabel accessory part descriptions to include ODF Frame family type (FIST-GR2/3 or FACT)	
0.6	26/05/2020	Brian Workman	Rework ODF description and product formula	
0.7	27/05/2020	Brian Workman	Minor layout changes	
0.8	12/06/2020	Brian Workman	Added product pictures to Ordering Information (Catalogue Descriptions and Numbers)	
1	02/07/2020	Brian Workman	Initial Release	

<b>Document Name</b>		Document Number	Version Number
FACT Optical Distribution Frame Platform for APAC Ordering Guide		POG1057	1
Author Release Date		Checked By	Authorised
Brian Workman	02/07/2020	Steven Dick	

## **Table of Contents**

1	Intro	oduction	1
	1.1	Purpose of this Document	1
		Related Documents	
	1.3	Document Symbols	1
	1.4	Document Abbreviations and Acronyms	2
2	Heal	Ith and Safety	3
3	FAC	T Optical Distribution Frame (ODF) Solution	4
	3.1	Unlock the Potential of Tomorrow's High Fibre Count Networks	4
		Powerful Benefits	
		3.2.1 Scalable, Manageable Density	5
		3.2.2 Long Term Agility	
		3.2.3 Lower Total Cost of Ownership	
		3.2.4 Modular Design	6
4	FAC	T Optical Distribution Frame at a Glance	7
	4.1	The FACT ODF Frame	
		4.1.1 Cross-Connect Applications	
	4.0	4.1.2 Interconnect Applications	
	4.2	FACT Frame Accessories (Sold Separately)	9
5	FAC	T Ordering Information	10
	5.1	FACT Frame Ordering Information	10
	5.2	FACT Chassis Ordering Information	
		5.2.1 FACT Splice-Only Chassis	
		5.2.2 FACT Patch-Only Chassis	
		5.2.3 FACT Splice-Patch Chassis	
	<b>-</b> 2	5.2.4 FACT NG4 Chassis	
		Universal Adaptor Packs	
		MPO Modules	
		FACT Cable Termination Kits	
	56	FΔCT in FIST-GR2/3 Frames	28

## **Summary of Tables**

Гable 1: Document Purpose Summary	1
Table 2: FACT Optical Distribution Frame Platform for APAC Related Documents	1
Table 3: Document Symbols	1
Table 4: Document Abbreviations and Acronyms	2
Гable 5: Site Hazard and Risks	3
Table 6: FACT Optical Distribution Frame Specifications	7
Table 7: Patch Cord Length Summary for Multi-FACT Frame Configuration	9
Table 8: FACT Frame Ordering Information	11
Table 9: FACT Frame Accessories Ordering Information	12
Table 10: Number of Trays (Splices) per FACT Splice-Only Chassis	14
Table 11: FACT Splice-Only Chassis Ordering Information	14
Table 12: FACT Patch Only Chassis Ordering Information	17
Table 13: Fibre Colour Code	17
Table 14: FACT Splice-Patch Chassis Ordering Information	21
Table 15: FACT NG4 Chassis Ordering Information	22
Table 16: Universal Adaptor Packs Ordering Information	23
Table 17: MPO Modules Ordering Information	25
Table 18: FACT Cable Termination Unit (CTU) Ordering Information	26
Table 19: FACT Cable Attachment Plate Ordering Information	27
Table 20: FIST-GR3 Frame Ordering Information	28
Table 21: FIST-GR3 Frame Accessories Ordering Information	31
Table 22: FIST-GR3 Cable Attachment Plate Ordering Information	31
Table 23: FACT Cable Termination Unit (CTU) for FIST GR2/3 Frames Ordering Information	32

## **Summary of Figures**

Figure 1: Two Fully Populated FACT Frames	4
Figure 2: Full Frame Breakout with Horizontal Central Building Blocks	6
Figure 3: Twin FACT Cross Connect frames - Deployed side-by-side	8
Figure 4: Cross Connect Four-Frame Block (deployed side-by-side)	9
Figure 5: Example Multi-FACT Frame Cross-Connect Configuration	9
Figure 6: Four-Element Splice-Only Chassis, six trays per Element, 12 SMOUVs per tray	13
Figure 7: 3E Patch-Only Chassis 24 SC/APC Port per Element	15
igure 8: Four Element RHP Splice-Patch Chassis 48 LC/APC Ports per Element (Total 192 Ports)	17
Figure 9: Four-Element FACT NG4 Chassis with LC12 Adaptor Packs	21
Figure 10: Single-Element FACT NG4 Chassis with right-exit MPO Module	22
Figure 11: LC12 Universal Adaptor Pack	23
Figure 12: Right-Exit MPO Module with LC Adaptors	24
Figure 13: Installed FACT-FRACCCTU6E with Cable Exit in the Bottom Left Corner	26

## 1 Introduction

## 1.1 Purpose of this Document

Purpose	Explanation	
Who is it for?	Pre-Sales (Field Application) Engineers and Sales Team Members in APAC region	
Purpose Describe the FACT solution and Common Configurations		
In Scope FACT Frame, Splice Only, Splice-Patch, NG4 Chassis, MPO Modules		
Out of Scope Pre-cabled solutions and NG4access® Value-added Modules (VAM)		

**Table 1: Document Purpose Summary** 

## 1.2 Related Documents

Please use this FACT Optical Distribution Frame Platform for APAC Ordering Guide in conjunction with the following documents:

<b>Document Identification</b>	Document Title	
	FACT Configurator	
FACT Configuration Tool Handbook		

**Table 2: FACT Optical Distribution Frame Platform for APAC Related Documents** 

## 1.3 Document Symbols

The following safety warning symbols and in-document icons are used throughout this FACT Optical Distribution Frame Platform for APAC Ordering Guide:

Purpose	Explanation
<u> </u>	<b>Warning:</b> This section requires special attention. Misuse/neglect of the information provided may result in may result in injury or death.
	<b>Caution:</b> This is a general warning, and section requires attention. Failure to follow directions provided may result in personal injury or equipment damage.
	Electrostatic Device:  This is a hazard warning, highlighting that the equipment is susceptible to Electrostatic discharge.  Observe precautions for handling electrostatic sensitive devices. Failure to follow directions provided may result in equipment damage.
*	Laser Beam Hazard: This is a hazard warning, highlighting the presence of invisible laser radiation from disconnected fibres or connectors. Observe precautions for handling opto-electronic devices. Failure to follow directions provided may result in personal injury.
	<b>First Aid:</b> Information presented here provides recommended procedure for administering First Aid to victim.
13/2	Important Note: Information presented here requires special attention.

**Table 3: Document Symbols** 

## 1.4 Document Abbreviations and Acronyms

The following table outlines the common abbreviations and acronyms used throughout this FACT Optical Distribution Frame Platform for APAC Ordering Guide:

Abbreviations and Acronyms	Definition
APC	Angle Physical Contact
CC	Cross-Connect
CCF	Cross-Connect Frame
°C	Degrees Centigrade
IC	Interconnect
ISP	Inside Plant
LC	Lucent Connector
LHS	Left Hand Side
LHP	Left Hand Patch
LL	Low Loss
m	Metres
mm	Millimetres
MAC	Moves, Adds and Changes
MPO	Multi-Fibre Push On
ODF	Optical Distribution Frame
OSP	Outside Plant
Ø	Diameter
RHS	Right Hand Side
RHP	Right Hand Patch
RU	Rack Units
SC	Standard Connector/Subscriber Connector
SU	System Unit
ULL	Ultra-Low Loss
UPC	Ultra-Physical Contact

**Table 4: Document Abbreviations and Acronyms** 

## 2 Health and Safety

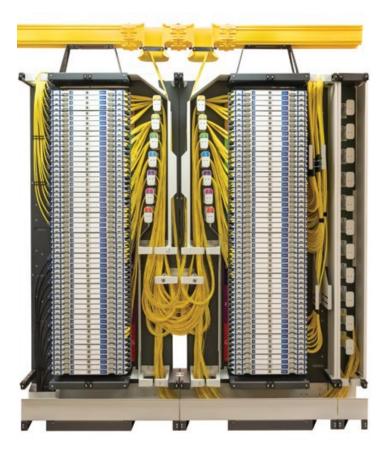
Observe the following precautions when performing the various tasks outlined in this instruction guide.

guide.	
Symbol	Description
	WARNING: Never look directly into the end of a fibre.  Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.
$\triangle$	<b>CAUTION: Safety Glasses</b> Safety glasses (spectacles) are recommended for eye protection from accidental injury when handling chemicals, cables, or working with fibre. Pieces of glass fibre are very sharp and have the potential to damage the eye.
	<b>CAUTION: Safety Gloves</b> The wearing of cut-resistant safety gloves to protect your hands from accidental injury when using sharp-bladed tools is strongly recommended.
<u> </u>	CAUTION: Cable Handling Precautions.  Fibre optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.
$\triangle$	CAUTION: Cable Management.  Managing cables and gators in pits require diligence. Ensure cables do not exceed the minimum bend radius. Ensure installation of cables do not interfere with outside plant in situ. Do not lace cables in pits and manholes
<u> </u>	CAUTION: Cutting Cable Strength Members.  Use extreme care when cutting central strength members to prevent damage to the buffer tubes.  WEAR EYE PROTECTION WHENEVER YOU CUT A STRENGTH MEMBER.  Hold the loose end of the strength member as you cut, to prevent the offcut from striking you or others
<u> </u>	WARNING: Filling Compound Remover Precautions.  Contains petroleum distillates. Harmful or fatal if swallowed. Call a physician immediately.  Note: Citrus oil is the preferred compound filler cleaning substance.
$\wedge$	IMPORTANT: Filling Compound Remover Precautions with Fibre.  Use only filling compound removers approved for fibre optic use. Aggressive solvents like white spirits or isopropyl alcohol may damage the matrix of fibre ribbons.  Note: Citrus oil is the preferred compound filler cleaning substance.
$\triangle$	<b>Warning:</b> Failure to follow directions provided may result in personal shock, burn or death

**Table 5: Site Hazard and Risks** 

## 3 FACT Optical Distribution Frame (ODF) Solution

## 3.1 Unlock the Potential of Tomorrow's High Fibre Count Networks



The demands on your network have never been higher. But where others feel pressure, CommScope finds potential. Fuelled by unmatched experience and a history of innovation, we work with you to deliver tailored solutions that unlock the opportunity in your network. Together, we create the cabling and connectivity solutions that keep you moving forward.

**Figure 1: Two Fully Populated FACT Frames** 

In central offices, head-ends and data centres, demand for bandwidth is growing exponentially. The need to install, access, reconfigure and reroute connections is constant. As the physical layer evolves, termination, splicing, patching and storage requirements surpass the capabilities of standard rack and shelf offerings.

Network managers need a better solution, one that supports rapid deployment, plug-and-play connectivity and high density – all while maximizing the usable density and long-term value of the fibre network. The FACT® Optical Distribution Frame (ODF) solution from CommScope is a compact, **fully front-accessible** solution that maximizes usable density and supports the continued growth of your fibre infrastructure.

As a modular solution, the FACT Optical Distribution Frame (ODF) solution is fully customizable: four modular frame versions for simplistic, clear cable routing, configure and incorporate universal adaptor packs, cabled modules, MPO modules and value-added modules to optimize your network needs. The complete FACT solution provides a flexible, reliable and cost-effective solution to your evolving network needs.

Incorporating CommScope's popular NG4access® Optical Distribution Frame modules, FACT provides a flexible, reliable and cost-effective solution to your evolving network needs.

## 3.2 Powerful Benefits

The forward-looking design of the FACT Optical Distribution Frame solution addresses the most pressing needs for your everchanging fibre network: reliable performance, seamless transition to future applications and a higher overall return on investment.

## 3.2.1 Scalable, Manageable Density

With a compact, modular and lightweight frame, high-density plug-and-play elements, and full-frontal access, the FACT Optical Distribution Frame system scales smoothly and logically. The innovative design reduces installation time by as much as 50 percent.

System maintenance is enhanced as well. All fibres are easily identifiable, clearly routed and individually accessible, allowing technicians to:

- Maximize space by installing frames up against a wall or in back-to-back configurations
- Support up to 2,880 individually accessible simplex LC fibre connections in a fully front accessible frame
- Locate and trace individual fibres along easy-to-follow cable routing paths
- Complete moves, adds and changes quickly and accurately
- Minimize installation time to live connections through ample room to work
- Reduce inventory and increase component availability with a single fixed patch cord length for all in-rack and panel connections
- Manage interconnects as well as cross-connects
- Perform advanced splicing, management and storage from a single point
- Up to 4 FACT frames can utilise the same length patch cord (5m) for intra-rack patching connections

# CommScope's FACT solution

Minimizes
installation time
Simplified
installation and
management
enable long-term
agility to meet
tomorrow's
challenges

Lowers total cost of ownership through maximized usable density

## 3.2.2 Long Term Agility

The FACT ODF solution is designed to flex and grow as the fibre needs of your network continue to evolve. Its modular design and simplified installation and management enable long-term agility to meet tomorrow's challenges.

- Supports the any-to-any configurations of today's leaf-and-spine architecture
- Enables on-the-fly addition of splitters, wavelength division multiplexers (WDMs), taps and connectivity modules

Supports a grow-as-needed approach that avoids overprovisioning and preserves precious capital.

## 3.2.3 Lower Total Cost of Ownership

Agility and optimized cable management lower total cost of ownership through maximized usable density, more effective capital deployment and improved operational efficiency:

- Maximize fibre density and manageability
- Deploy standard cable configurations to reduce installation and inventory costs
- Decrease troubleshooting time and need to install or reroute fibres
- Reduce mean time to repair and downtime costs
- Accelerate time to market and time to revenue
- Enhance return on investment (ROI)

## 3.2.4 Modular Design

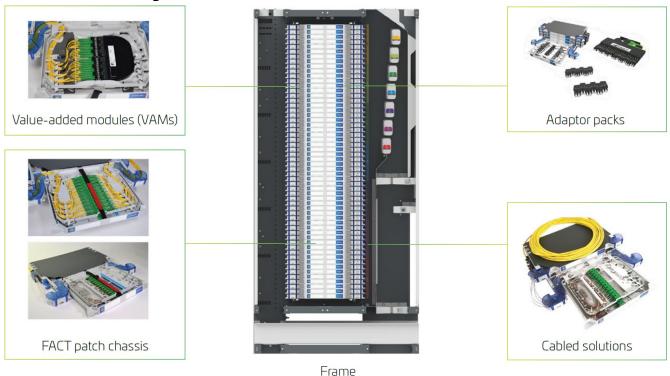


Figure 2: Full Frame Breakout with Horizontal Central Building Blocks

## 4 FACT Optical Distribution Frame at a Glance

APPLICATION				
General:	Medium to large front access fibre application			
<b>Location:</b> Main distribution area or head of				
Function:	Cross-Connect (CC, using CC-Frame)			
	Interconnect (IC, using IC-Frame)			
DIMENSIONS				
Width:	900mm (IC-Frame)			
	1050mm (CC-Frame)			
Depth:	300mm			
Height:	2200mm			
INSTALLA	ATION PRACTICES			
Patching Direction:	In Tray			
CC-Frame: max frames per line-up at max	4 (without Fibre Guide) - total 10752 single LC-connections			
density (recommended):	16 (with Fibre Guide) - total 43008 single LC-connections			
IC-Frame:	Typically, single frame application			
Recommended Patch Cord OD:	SC: <= 2 mm			
	LC: <= 1.8 mm			
On Frame Splicing:	Yes, with no density reduction			
Jumper Slack Storage Location:	On Frame			
	APACITY			
Connections per Frame (SC/LC):	CC-Frame: 1344/2688			
	IC-Frame: 1440/2880			
Connections per Frame (MPO 12/MPO 24 Fibre):	CC-Frame: 10752/21504			
	IC-Frame: 11520/23040			
Splices per Frame (Splice-Patch Chassis):	CC-Frame: 2688			
	IC-Frame: 2880			
Splices per Frame (Splice-Only Chassis with	CC-Frame: 4032			
SMOUV Protector):	IC-Frame: 4320			
Connection Density for frame width 1050 mm:	SC: 3733/343			
	LC: 7466/686			
	MPO: 29866/2745			
Elements per Frame:	CC-Frame: 56			
	IC-Frame: 60			
VAM (Value Added Module) Capacity:	Yes (FACT-NG4 chassis only)			
NG4 Adapter packs Capacity:	Yes (FACT-NG4 chassis only)			
NG4 MPO Modules Capacity:	Yes (FACT-NG4 chassis only)			
NG4 Cabled Modules Capacity:	Yes (FACT-NG4 chassis only)			
SPEC	CIFICATIONS			
Compliance:	IEC 6300-2			
Seismic Rating:	Zone 2			

**Table 6: FACT Optical Distribution Frame Specifications** 

## 4.1 The FACT ODF Frame

The FACT® Optical Distribution Frame (ODF) solution begins with CommScope's modular, lightweight FACT frame. The all-purpose, easy-to-use FACT frames are designed to meet today and tomorrow's high-density network needs.

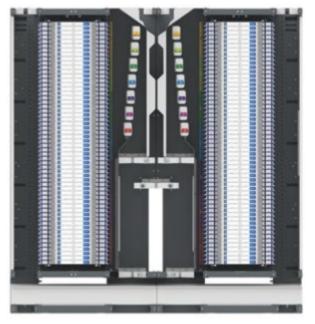


Figure 3: Twin FACT Cross Connect frames - Deployed side-by-side

FACT frames are fully front access and engineered to control bend radius of fibre routing, maintaining superior optical performance and easy access to cables, pigtails and jumpers during installation as well as during moves, adds and changes (MAC). The FACT Cross-Connect Frame can be placed up against a wall or back-to-back (in a quad formation) to maximize usable density. The FACT Cross-Connect Frame includes backplate numbering allowing for simple tracking of fibres whether you route from top to bottom or vice versa. One standard patch cord length (5m) can reach any position in a back-to back configuration, reducing the number of cable lengths required.

The FACT Interconnect Frame provides dedicated locations for cable routing and color-coded fibre management, supporting up to 2,880 simplex LC connections in a single frame. The frame ships in a lightweight, condensed kit for easy handling, storage and transport. It is easy to install onsite – even by a single operator, in less than 30 minutes.

The FACT frame accommodates not only FACT shelving, but standard 19-inch shelving as well allowing you to increase your density while utilizing your current equipment. The FACT ODF Frame is compatible with a range of accessories such as side panels, doors and cable attachment plates.

Cable attachment plates are incorporated into the side ducts, and a range of accessories such as door kits, top and side panels, overlength storage bays, and extra cable attachment plates are available, as well.

## **4.1.1 Cross-Connect Applications**

The FACT Cross-Connect Frame is the best-in-class frame for applications with a medium or high "moves, adds and changes" frequency (MAC-frequency). FACT Cross-Connect Frames can be used in a single frame application, or when placed together, can be set up in multiple frame configurations to suit any space requirement and allows for additional ease of access to cables during operation, maintenance and upgrades. For larger line-ups, multiple FACT Cross-Connect Frames can be deployed side-by-side. Each FACT Cross-Connect Frame accommodates up to 2688 simplex LC connections.

The FACT Optical Distribution Frame (ODF) system solution works best when using fixed patch cord lengths within the same frame, or between adjacent frames. Patch cords with a diameter of 1.8 mm or less enable an effective usable density of 2,688 connections per frame.

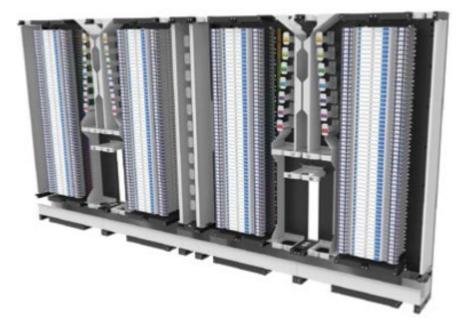


Figure 4: Cross Connect Four-Frame Block (deployed side-by-side)

The diagram below shows an example line-up of a multi-FACT Frame configuration (for a Cross-Connect Application):

Frame C	Frame D	Frame G	Frame H
Frame A	Frame B	Frame E	Frame F

**Figure 5: Example Multi-FACT Frame Cross-Connect Configuration** 

The table below outlines the recommended patch cord lengths for any-to-any cross-connect:

Patch Cord Length		To Frame						
From Frame	Frame A	Frame B	Frame C	Frame D	Frame E	Frame F	Frame G	Frame H
Frame A	5m	5m	5m	5m	10m	10m	10m	10m
Frame B	5m	5m	5m	5m	10m	10m	10m	10m
Frame C	5m	5m	5m	5m	10m	10m	10m	10m
Frame D	5m	5m	5m	5m	10m	10m	10m	10m
Frame E	10m	10m	10m	10m	5m	5m	5m	5m
Frame F	10m	10m	10m	10m	5m	5m	5m	5m
Frame G	10m	10m	10m	10m	5m	5m	5m	5m
Frame H	10m	10m	10m	10m	5m	5m	5m	5m

**Table 7: Patch Cord Length Summary for Multi-FACT Frame Configuration** 

## **4.1.2 Interconnect Applications**

The FACT Interconnect Frame is typically used in a single frame application, with lower MAC frequency, offering a superior density with 2880 simplex LC connections on a smaller footprint.

## 4.2 FACT Frame Accessories (Sold Separately)

Accessories for the FACT ODF including cable termination and retention units (for a wide range of cable sizes and cable types), frame doors and/or side panels, are also available.

## **5 FACT Ordering Information**

## 5.1 FACT Frame Ordering Information

The table below outlines the ordering information for the various FACT Frame types:

Description	Unit Picture	Dimensions (H x W x D mm)	Max (Simplex) Terminations (LC/SC)	Catalogue Number (MID)	Catalogue Description
FACT Cross-Connect Frame  – Right Hand Patch (2.2m)		2200 x 1050 x 300	2688/1344	760243095	FACT-FRCCRHP22
FACT Cross-Connect Frame – Left Hand Patch (2.2m)		2200 x 1050 x 300	2688/1344	760243094	FACT-FRCCLHP22
FACT Interconnect Frame – Right Hand Patch (2.2m)		2200 x 900 x 300	2880/1440	760243096	FACT-FRICRHP22

Description	Unit Picture	Dimensions (H x W x D mm)	Max (Simplex) Terminations (LC/SC)	Catalogue Number (MID)	Catalogue Description
FACT Patch Cord Overlength Management Bay (2.2m)		2200 x 200 x 300	N/A	760243097	FACT-FROLB22

**Table 8: FACT Frame Ordering Information** 



#### All FACT Frame kits include:

Wall and back-to-back connection kit
Side-to-side connection kit
Earthing kit
Adjustable feet
Installation instructions
Colour label kit for spool identification and intuitive patch cord routing

Required hardware and fasteners
Pre-installed position number identification strip for FACT-style and 19"-style

The table below outlines the ordering information for the FACT Frame Accessories:

Description	Unit Picture	Catalogue Number (MID)	Catalogue Description
FACT Cross-Connect Frame Door Kit (2.2m) Set of two doors with two door handles per door. The door handles are compatible with half cylinder locks according to DIN 18252 (EN 1303). <b>Note:</b> Locks not included		760243098	FACT-FRCCD22
FACT Cross-Connect Frame – Side Panel Kit (2.2m) <b>Note:</b> Set of two panels		760243099	FACT-FRCCP22

Description	Unit Picture	Catalogue Number (MID)	Catalogue Description
FACT Interconnect Frame Door Kit (2.2m) Set of two doors with two door handles per door. The door handles are compatible with half cylinder locks according to DIN 18252 (EN 1303).  Note: Locks not included.		760243100	FACT-FRICD22
FACT Patch Cord Overlength Bay Door (2.2m) Set of one door with two door handles. The door handles are compatible with half cylinder locks according to DIN 18252 (EN 1303). <b>Note:</b> Locks not included		760243101	FACT-FROLBD22
FACT Fibre Guide Fixation Kit		760243110	FACT-FRACCFGS
FACT Door Lock Kit Kit with two half cylinder locks according to DIN 18252 (EN 1303).  Notes: Two lock kits are required for a frame door kit One lock kit required for OLB door kit.	11 1 3 MSDAJASPATSA (V. 1)	760245341	FACT-FRACCDL2 (2-pack)
FACT Fanout Plate (FOPL) for up to 32 Fan-Out cables (includes 8 Fan-Out fixations)		760243109	FACT-FRACCFOPL

**Table 9: FACT Frame Accessories Ordering Information** 



## All FACT Frame accessory kits include:

Installation instructions Required hardware and fasteners

## 5.2 FACT Chassis Ordering Information

The building blocks of the FACT Optical Distribution Frame system are the FACT chassis. FACT chassis can be deployed individually as a single-element chassis, or up to six similar elements can be combined into high fibre-count FACT chassis. The single-element FACT chassis measures 30.95 mm tall, 30 percent less than the standard 1RU (44.45 mm). Each FACT element provides full front access to both sides of all connections and clear visibility of all ports. There are four FACT chassis types available:

- Splice-Only Chassis
- Patch-Only Chassis
- Splice-Patch Chassis
- NG4 Chassis

## 5.2.1 FACT Splice-Only Chassis

The FACT Splice (Splice-Only) chassis is a multipurpose splice shelf featuring 6 or 12 splice trays (72 or 48 SMOUV splices per FACT element, respectively). In combination with the FACT-ACCCTU accessories, the FACT splice chassis supports multiple splice applications, including:

- Outdoor-to-indoor loose-tube cable
- Loose-tube cable to pigtails (single aramid yarn termination)
- Loose-tube cable to breakout or intra-facility (IFC) cable
- Pigtail to pigtail (single aramid yarn termination)



Figure 6: Four-Element Splice-Only Chassis, six trays per Element, 12 SMOUVs per tray

The table below identifies the number of splice trays installed (and total splices) in the FACT Splice-Only Chassis, based on the splice tray type employed:

Chassis Size	S04	S12
1E	12 (48)	6 (72)
2E	24 (96)	12 (144)
3E	36 (144)	18 (216)
4E	48 (192)	24 (288)

Table 10: Number of Trays (Splices) per FACT Splice-Only Chassis

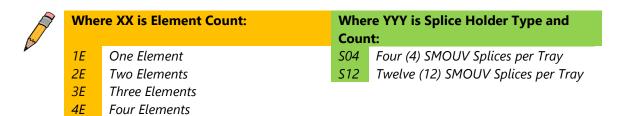


#### **Important Note:**

S04 Trays support fibre of 250μm or 900μm S12 Trays support fibre of 250μm only

The following formula describes how the Catalogue Description is created for the FACT Splice-Only Chassis:





The table below outlines the FACT Splice-Only Chassis types available based on the configuration parameters provided above:

Description	Catalogue Number (MID)	Catalogue Description
FACT 1E Splice-Only Chassis with twelve S04 (SMOUV) Splice Trays (Total 48 Splices)	760239957	FACT-1ESPLS04
FACT 1E Splice-Only Chassis with six S12 (SMOUV) Splices Trays (Total 72 Splices)	760239959	FACT-1ESPLS12
FACT 2E Splice-Only Chassis with twenty-four S04 (SMOUV) Splice Trays (Total 96 Splices)	760239961	FACT-2ESPLS04
FACT 2E Splice-Only Chassis with twelve S12 (SMOUV) Splices Trays (Total 144 Splices)	760239963	FACT-2ESPLS12
FACT 3E Splice-Only Chassis with thirty-six S04 (SMOUV) Splice Trays (Total 144 Splices)	760239965	FACT-3ESPLS04
FACT 3E Splice-Only Chassis with eighteen S12 (SMOUV) Splices Trays (Total 216 Splices)	760239967	FACT-3ESPLS12
FACT 4E Splice-Only Chassis with forty-eight S04 (SMOUV) Splice Trays (Total 192 Splices)	760239972	FACT-4ESPLS04
FACT 4E Splice-Only Chassis with twenty-four S12 (SMOUV) Splices Trays (Total 288 Splices)	760239970	FACT-4ESPLS12

**Table 11: FACT Splice-Only Chassis Ordering Information** 



#### **Splice Chassis Sizes:**

The largest available Splice-Only Chassis is four (4) Elements

### **5.2.2 FACT Patch-Only Chassis**

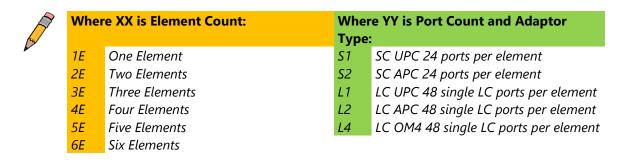
The FACT Patch-Only chassis features two hinged trays that supports both Cross-Connect and Interconnect applications. The FACT Patch-Only chassis is available with SC or LC through adaptors that accommodates 24 single (or 12 duplex) SC connections or 48 single (24 duplex) LC connections per element.



Figure 7: 3E Patch-Only Chassis 24 SC/APC Port per Element

The following formula describes how the Catalogue Description is created for the FACT Patch-Only Chassis:





The table below outlines the FACT Patch-Only Chassis types available based on the configuration parameters provided above:

Description	Catalogue Number (MID)	Catalogue Description
FACT 1E Patch-Only Chassis with 48 LC UPC ports per Element (Total 48 Patches)	760240414	FACT-1EPATL1
FACT 1E Patch-Only Chassis with 48 LC APC ports per Element (Total 48 Patches)	760240415	FACT-1EPATL2
FACT 1E Patch-Only Chassis with 48 LC OM4 ports per Element (Total 48 Patches)	760240416	FACT-1EPATL4
FACT 1E Patch-Only Chassis with 24 SC UPC ports per Element (Total 24 Patches)	760239979	FACT-1EPATS1
FACT 1E Patch-Only Chassis with 24 SC APC ports per Element (Total 24 Patches)	760239980	FACT-1EPATS2
FACT 2E Patch-Only Chassis with 48 LC UPC ports per Element (Total 96 Patches)	760239982	FACT-2EPATL1
FACT 2E Patch-Only Chassis with 48 LC APC ports per Element (Total 96 Patches)	760239983	FACT-2EPATL2
FACT 2E Patch-Only Chassis with 48 LC OM4 ports per Element (Total 96 Patches)	760239984	FACT-2EPATL4
FACT 2E Patch-Only Chassis with 24 SC UPC ports per Element (Total 48 Patches)	760239981	FACT-2EPATS1
FACT 2E Patch-Only Chassis with 24 SC APC ports per Element (Total 48 Patches)	760240065	FACT-2EPATS2
FACT 3E Patch-Only Chassis with 48 LC UPC ports per Element (Total 144 Patches)	760239988	FACT 3EPATL3
FACT 3E Patch-Only Chassis with 48 LC APC ports per Element (Total 144 Patches)	760239989 760239990	FACT-3EPATL2 FACT-3EPATL4
FACT 3E Patch-Only Chassis with 48 LC OM4 ports per Element (Total 144 Patches)  FACT 3E Patch-Only Chassis with 24 SC UPC ports per Element	760239990	FACT-3EPATL4  FACT-3EPATS1
(Total 72 Patches)  FACT 3E Patch-Only Chassis with 24 SC APC ports per Element	760240073	FACT-3EPATS2
(Total 72 Patches)  FACT 4E Patch-Only Chassis with 48 LC UPC ports per Element	760239993	FACT-4EPATL1
(Total 192 Patches)  FACT 4E Patch-Only Chassis with 48 LC APC ports per Element	760239994	FACT-4EPATL2
(Total 192 Patches)  FACT 4E Patch-Only Chassis with 48 LC OM4 ports per Element	760239995	FACT-4EPATL4
(Total 192 Patches)  FACT 4E Patch-Only Chassis with 24 SC UPC ports per Element	760239991	FACT-4EPATS1
(Total 96 Patches)  FACT 4E Patch-Only Chassis with 24 SC APC ports per Element	760240076	FACT-4EPATS2
(Total 96 Patches)  FACT 5E Patch-Only Chassis with 48 LC UPC ports per Element	760240432	FACT-5EPATL1
(Total 240 Patches)  FACT 5E Patch-Only Chassis with 48 LC APC ports per Element	760240433	FACT-5EPATL2
(Total 240 Patches) FACT 5E Patch-Only Chassis with 48 LC OM4 ports per Element	760240434	FACT-5EPATL4
(Total 240 Patches)  FACT 5E Patch-Only Chassis with 24 SC UPC ports per Element (Total 120 Patches)	760239997	FACT-5EPATS1

Description	Catalogue Number (MID)	Catalogue Description
FACT 5E Patch-Only Chassis with 24 SC APC ports per Element (Total 120 Patches)	760240429	FACT-5EPATS2
FACT 6E Patch-Only Chassis with 48 LC UPC ports per Element (Total 288 Patches)	760240441	FACT-6EPATL1
FACT 6E Patch-Only Chassis with 48 LC APC ports per Element (Total 288 Patches)	760239998	FACT-6EPATL2
FACT 6E Patch-Only Chassis with 48 LC OM4 ports per Element (Total 288 Patches)	760240442	FACT-6EPATL4
FACT 6E Patch-Only Chassis with 24 SC UPC ports per Element (Total 144 Patches)	760240437	FACT-6EPATS1
FACT 6E Patch-Only Chassis with 24 SC APC ports per Element (Total 144 Patches)	760240438	FACT-6EPATS2

**Table 12: FACT Patch Only Chassis Ordering Information** 

### **5.2.3 FACT Splice-Patch Chassis**

The FACT Splice Patch chassis features two hinged trays that are pre-installed with LC/OM4, SC/OM4, SC/APC, SC/UPC, LC/APC or LC/UPC pigtails and corresponding through adaptors. The FACT Splice-Patch chassis enables splicing of OSP or ISP cables directly on the frame with no loss of density. The high-density chassis accommodates 24 single (12 duplex) SC or 48 single (24 duplex) LC connections per FACT element. The pre-installed fibre pigtails follow the EIA/TIA 598 color-coding standard (see adjacent table for details)

Fibre Number	Fibre Colour Code
Fibre 1	Blue
Fibre 2	Orange
Fibre 3	Green
Fibre 4	Brown
Fibre 5	Grey
Fibre 6	White
Fibre 7	Red
Fibre 8	Black
Fibre 9	Yellow
Fibre 10	Purple
Fibre 11	Pink
Fibre 12	Turquoise

**Table 13: Fibre Colour Code** 



Figure 8: Four Element RHP Splice-Patch Chassis 48 LC/APC Ports per Element (Total 192 Ports)

The following formula describes how the Catalogue Description is created for the FACT Splice-Patch Chassis:





Wher	re XX is Element Count:	Where	ZZ is Port Count and Adaptor Type:
1E	One Element	SF	24 SC UPC ports per Element (Grade B connector)
2E	Two Elements	SG	24 SC APC ports per Element (Grade B connector)
3E	Three Elements	<i>S4</i>	24 SC OM4 ports per Element
4E	Four Elements	LF	48 LC UPC ports per Element (Grade B connector)
5E	Five Elements	LG	48 LC APC ports per Element (Grade B connector)
6E	Six Elements	L4	48 LC OM4 ports per Element

Where Y is Patch Cord Side:		Where	S is the Splice Holder Type
L	Left	S	SMOUV Splice Holder
R	Right		

The table below outlines the FACT Splice-Patch Chassis types available based on the configuration parameters provided above:

Description	Catalogue Number (MID)	Catalogue Description
FACT 1E Splice-Patch Chassis with 48 LC OM4 ports per	760240454	FACT-1ELHPL4S
Element (LHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 48 LC UPC ports per	760240452	FACT-1ELHPLFS
Element (LHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 48 LC APC ports per	760240453	FACT-1ELHPLGS
Element (LHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC OM4 ports per	760240448	FACT-1ELHPS4S
Element (LHP - Total 24 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC UPC ports per	760240446	FACT-1ELHPSFS
Element (LHP - Total 24 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC APC ports per	760240447	FACT-1ELHPSGS
Element (LHP - Total 24 Ports)		
FACT 1E Splice-Patch Chassis with 48 LC OM4 ports per	760240589	FACT-1ERHPL4S
Element (RHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 48 LC UPC ports per	760240587	FACT-1ERHPLFS
Element (RHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 48 LC APC ports per	760240588	FACT-1ERHPLGS
Element (RHP - Total 48 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC OM4 ports per	760240583	FACT-1ERHPS4S
Element (RHP - Total 24 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC UPC ports per	760240581	FACT-1ERHPSFS
Element (RHP - Total 24 Ports)		
FACT 1E Splice-Patch Chassis with 24 SC APC ports per	760240582	FACT-1ERHPSGS
Element (RHP - Total 24 Ports)		
FACT 2E Splice-Patch Chassis with 48 LC OM4 ports per	760240003	FACT-2ELHPL4S
Element (LHP - Total 96 Ports)		
FACT 2E Splice-Patch Chassis with 48 LC UPC ports per	760240475	FACT-2ELHPLFS
Element (LHP - Total 96 Ports)		
FACT 2E Splice-Patch Chassis with 48 LC APC ports per	760240476	FACT-2ELHPLGS
Element (LHP - Total 96 Ports)		

Description	Catalogue Number (MID)	Catalogue Description
FACT 2E Splice-Patch Chassis with 24 SC OM4 ports per Element (LHP - Total 48 Ports)	760240473	FACT-2ELHPS4S
FACT 2E Splice-Patch Chassis with 24 SC UPC ports per Element (LHP - Total 48 Ports)	760240471	FACT-2ELHPSFS
FACT 2E Splice-Patch Chassis with 24 SC APC ports per Element (LHP - Total 48 Ports)	760240472	FACT-2ELHPSGS
FACT 2E Splice-Patch Chassis with 48 LC OM4 ports per Element (RHP - Total 96 Ports)	760240022	FACT-2ERHPL4S
FACT 2E Splice-Patch Chassis with 48 LC UPC ports per Element (RHP - Total 96 Ports)	760240610	FACT-2ERHPLFS
FACT 2E Splice-Patch Chassis with 48 LC APC ports per Element (RHP - Total 96 Ports)	760240611	FACT-2ERHPLGS
FACT 2E Splice-Patch Chassis with 24 SC OM4 ports per Element (RHP - Total 48 Ports)	760240608	FACT-2ERHPS4S
FACT 2E Splice-Patch Chassis with 24 SC UPC ports per Element (RHP - Total 48 Ports)	760240606	FACT-2ERHPSFS
FACT 2E Splice-Patch Chassis with 24 SC APC ports per Element (RHP - Total 48 Ports)	760240607	FACT-2ERHPSGS
FACT 3E Splice-Patch Chassis with 48 LC OM4 ports per Element (LHP - Total 144 Ports)	760240009	FACT-3ELHPL4S
FACT 3E Splice-Patch Chassis with 48 LC UPC ports per Element (LHP - Total 144 Ports)	760240494	FACT-3ELHPLFS
FACT 3E Splice-Patch Chassis with 48 LC APC ports per Element (LHP - Total 144 Ports)	760240495	FACT-3ELHPLGS
FACT 3E Splice-Patch Chassis with 24 SC OM4 ports per Element (LHP - Total 72 Ports)	760240493	FACT-3ELHPS4S
FACT 3E Splice-Patch Chassis with 24 SC UPC ports per Element (LHP - Total 72 Ports)	760240492	FACT-3ELHPSFS
FACT 3E Splice-Patch Chassis with 24 SC APC ports per Element (LHP - Total 72 Ports)	760240006	FACT-3ELHPSGS
FACT 3E Splice-Patch Chassis with 48 LC OM4 ports per Element (RHP - Total 144 Ports)	760240029	FACT-3ERHPL4S
FACT 3E Splice-Patch Chassis with 48 LC UPC ports per Element (RHP - Total 144 Ports)	760240629	FACT-3ERHPLFS
FACT 3E Splice-Patch Chassis with 48 LC APC ports per Element (RHP - Total 144 Ports)	760240630	FACT-3ERHPLGS
FACT 3E Splice-Patch Chassis with 24 SC OM4 ports per Element (RHP - Total 72 Ports)	760240627	FACT-3ERHPS4S
FACT 3E Splice-Patch Chassis with 24 SC UPC ports per Element (RHP - Total 72 Ports)	760240625	FACT-3ERHPSFS
FACT 3E Splice-Patch Chassis with 24 SC APC ports per Element (RHP - Total 72 Ports)	760240626	FACT-3ERHPSGS
FACT 4E Splice-Patch Chassis with 48 LC OM4 ports per Element (LHP - Total 192 Ports)	760240015	FACT-4ELHPL4S
FACT 4E Splice-Patch Chassis with 48 LC UPC ports per Element (LHP - Total 192 Ports)	760240514	FACT-4ELHPLFS
FACT 4E Splice-Patch Chassis with 48 LC APC ports per Element (LHP - Total 192 Ports)	760240515	FACT-4ELHPLGS
FACT 4E Splice-Patch Chassis with 24 SC OM4 ports per Element (LHP - Total 96 Ports)	760240512	FACT-4ELHPS4S

Description	Catalogue Number (MID)	Catalogue Description
FACT 4E Splice-Patch Chassis with 24 SC UPC ports per	760240510	FACT-4ELHPSFS
Element (LHP - Total 96 Ports)		
FACT 4E Splice-Patch Chassis with 24 SC APC ports per	760240511	FACT-4ELHPSGS
Element (LHP - Total 96 Ports)		
FACT 4E Splice-Patch Chassis with 48 LC OM4 ports per	760240057	FACT-4ERHPL4S
Element (RHP - Total 192 Ports)		
FACT 4E Splice-Patch Chassis with 48 LC UPC ports per Element (RHP - Total 192 Ports)	760240648	FACT-4ERHPLFS
FACT 4E Splice-Patch Chassis with 48 LC APC ports per Element (RHP - Total 192 Ports)	760240649	FACT-4ERHPLGS
FACT 4E Splice-Patch Chassis with 24 SC OM4 ports per Element (RHP - Total 96 Ports)	760240646	FACT-4ERHPS4S
FACT 4E Splice-Patch Chassis with 24 SC UPC ports per Element (RHP - Total 96 Ports)	760240644	FACT-4ERHPSFS
FACT 4E Splice-Patch Chassis with 24 SC APC ports per Element (RHP - Total 96 Ports)	760240645	FACT-4ERHPSGS
FACT 5E Splice-Patch Chassis with 48 LC OM4 ports per	760240540	FACT-5ELHPL4S
Element (LHP - Total 240 Ports)  FACT 5E Splice-Patch Chassis with 48 LC UPC ports per	760240538	FACT-5ELHPLFS
Element (LHP - Total 240 Ports)	7 002 10330	17101 322111 213
FACT 5E Splice-Patch Chassis with 48 LC APC ports per Element (LHP - Total 240 Ports)	760240539	FACT-5ELHPLGS
FACT 5E Splice-Patch Chassis with 24 SC OM4 ports per Element (LHP - Total 120 Ports)	760240534	FACT-5ELHPS4S
FACT 5E Splice-Patch Chassis with 24 SC UPC ports per Element (LHP - Total 120 Ports)	760240532	FACT-5ELHPSFS
FACT 5E Splice-Patch Chassis with 24 SC APC ports per Element (LHP - Total 120 Ports)	760240533	FACT-5ELHPSGS
FACT 5E Splice-Patch Chassis with 48 LC OM4 ports per Element (RHP - Total 240 Ports)	760240673	FACT-5ERHPL4S
FACT 5E Splice-Patch Chassis with 48 LC UPC ports per Element (RHP - Total 240 Ports)	760240671	FACT-5ERHPLFS
FACT 5E Splice-Patch Chassis with 48 LC APC ports per Element (RHP - Total 240 Ports)	760240672	FACT-5ERHPLGS
FACT 5E Splice-Patch Chassis with 24 SC OM4 ports per	760240667	FACT-5ERHPS4S
Element (RHP - Total 120 Ports)  FACT 5E Splice-Patch Chassis with 24 SC UPC ports per	760240665	FACT-5ERHPSFS
Element (RHP - Total 120 Ports)  FACT 5E Splice-Patch Chassis with 24 SC APC ports per	760240666	FACT-5ERHPSGS
FACT 6E Splice-Patch Chassis with 48 LC OM4 ports per	760240566	FACT-6ELHPL4S
FACT 6E Splice-Patch Chassis with 48 LC UPC ports per	760240564	FACT-6ELHPLFS
Element (LHP - Total 288 Ports)  FACT 6E Splice-Patch Chassis with 48 LC APC ports per	760240565	FACT-6ELHPLGS
Element (LHP - Total 288 Ports) FACT 6E Splice-Patch Chassis with 24 SC OM4 ports per	760240560	FACT-6ELHPS4S
Element (LHP - Total 144 Ports)  FACT 6E Splice-Patch Chassis with 24 SC UPC ports per Element (LHP - Total 144 Ports)	760240558	FACT-6ELHPSFS

Description	Catalogue Number (MID)	Catalogue Description
FACT 6E Splice-Patch Chassis with 24 SC APC ports per Element (LHP - Total 144 Ports)	760240559	FACT-6ELHPSGS
FACT 6E Splice-Patch Chassis with 48 LC OM4 ports per Element (RHP - Total 288 Ports)	760240697	FACT-6ERHPL4S
FACT 6E Splice-Patch Chassis with 48 LC UPC ports per Element (RHP - Total 288 Ports)	760240695	FACT-6ERHPLFS
FACT 6E Splice-Patch Chassis with 48 LC APC ports per Element (RHP - Total 288 Ports)	760240696	FACT-6ERHPLGS
FACT 6E Splice-Patch Chassis with 24 SC OM4 ports per Element (RHP - Total 144 Ports)	760240692	FACT-6ERHPS4S
FACT 6E Splice-Patch Chassis with 24 SC UPC ports per Element (RHP - Total 144 Ports)	760240690	FACT-6ERHPSFS
FACT 6E Splice-Patch Chassis with 24 SC APC ports per Element (RHP - Total 144 Ports)	760240691	FACT-6ERHPSGS

**Table 14: FACT Splice-Patch Chassis Ordering Information** 



#### **Important Note:**

All incoming fibre must be 250µm for splicing All Single Mode Connectors are Grade B Single-Mode Grade B Connector performance is in accordance with IEC 61755-1

#### 5.2.4 FACT NG4 Chassis

The universal FACT NG4 chassis features two hinged trays that supports NG4access connectivity packs and modules which snap into the FACT NG4 chassis. In addition to SC, LC and MPO adaptor packs, it also accommodates MPO-to-LC modules.

The FACT NG4 element includes two trays; each element can accommodate:

- Four LC adaptor packs
- Four SC adaptor packs
- Four MPO adaptor packs
- Two MPO-to-LC modules



Figure 9: Four-Element FACT NG4 Chassis with LC12 Adaptor Packs



Figure 10: Single-Element FACT NG4 Chassis with right-exit MPO Module

The following formula describes how the Catalogue Description is created for the FACT NG4 Chassis:





#### Where XX is Element Count:

1E One Element2E Two Elements3E Three Elements

**4E** Four Elements **6E** Six Elements

The table below outlines the FACT NG4 Chassis types available based on the configuration parameters provided above:

Description	Catalogue Number (MID)	Catalogue Description
FACT 1E NG4 Chassis	760239975	FACT-1ENG4
FACT 2E NG4 Chassis	760239976	FACT-2ENG4
FACT 3E NG4 Chassis	760239977	FACT-3ENG4
FACT 4E NG4 Chassis	760239978	FACT-4ENG4
FACT 6E NG4 Chassis	760242087	FACT-6ENG4

**Table 15: FACT NG4 Chassis Ordering Information** 



#### Five (5) Element Chassis:

The FACT five (5) Element NG4 Chassis is not an orderable item.

## 5.3 Universal Adaptor Packs

FACT universal adaptor packs are designed to accept single-mode and multimode connections with ultrapolished or angle-polished connectors. A staggered adaptor design allows technicians to easily identify and access individual connections without disturbing adjacent circuits and eliminates the need for insertion or extraction tools.

Each FACT element supports up to four universal adaptor packs; two LC12, SC6 or MPO4 adaptor packs can be installed per tray.

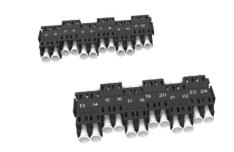


Figure 11: LC12 Universal Adaptor Pack

The table below outlines the NG4 Universal Adaptor Pack types available for use in the FACT NG4 Chassis:

Description	Unit Picture	Capacity (Connections)	Dimensions (H x W x D mm)	Catalogue Number (MID)
NG4 Snap-in LC12 Universal Adaptor Twin Pack NG4 Snap-in LC12 Universal Adaptor Pack (2 Packs required per NG4 Element)	3 H 2 2 3 2 2 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4	24 Single (simplex) LC		NG4-APLC120000
NG4 Snap-in SC6 Universal Adaptor Twin Pack (2 Packs required per NG4 Element)		12 Single (simplex) SC	84 x 33 x 10	NG4-APSC060000
NG4 Snap-in MPO4 Adaptor Four-Pack (key up/down - Method A) (2 Packs required per NG4 Element)		8 MPO (Method A)		NG4-APMP040000
NG4 Snap-in MPO4 Adaptor Four-Pack (key up/up – Method B-Enhanced) (2 Packs required per NG4 Element)		8 MPO (Method B-Enhanced)		NG4-APMP0400EB

**Table 16: Universal Adaptor Packs Ordering Information** 

## 5.4 MPO Modules

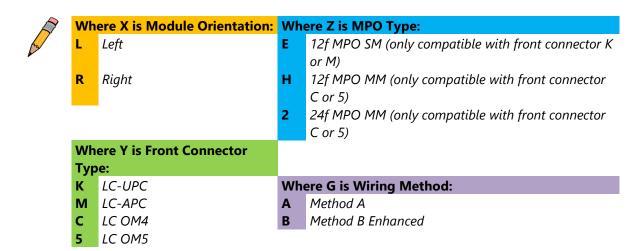
FACT MPO modules enable technicians to route and install higher fibre counts faster and more easily, while simplifying inventory and ordering. The front interface for LC connectors is identical to the cabled module, while the rear integrates a low-loss MPO adaptor - enabling installers to quickly connect MPO trunk cables for rapid installation and turn-up. This module also supports direct connection to electronics, fibre tie cables or top-of-rack systems such as CommScope's Rapid panels or MFPS panel. The MPO module snaps into place within the FACT NG4 tray, and each FACT NG4 element supports up to two MPO modules. Standard available wiring methods are Method A and Method B Enhanced.



Figure 12: Right-Exit MPO Module with LC Adaptors

The following formula describes how the Catalogue Description is created for the MPO Modules:





The table below outlines the FACT MPO Module types available based on the configuration parameters provided above and suitable for use in the FACT NG4 Chassis:

Description	Catalogue Number (MID)	Catalogue Description
FACT LH 2x12f MPO (Meth A) Module with SM LC-APC Front	760244923	FACT-MMDLME-A
Connectors	100244323	FACT-IVIIVIDLIVIE-A
FACT RH 2x12f MPO (Meth A) Module with SM LC-APC Front	760244924	FACT-MMDRME-A
Connectors	700244324	TACT-WINDKING-A
FACT LH 2x12f MPO (Meth B Enhanced) Module with SM LC-	760244560	FACT-MMDLME-B
APC Front Connectors	700211300	17101 111111111111111111111111111111111
FACT RH 2x12f MPO (Meth B Enhanced) Module with SM LC-	760244561	FACT-MMDRME-B
APC Front Connectors		
FACT LH 2x12f MPO (Meth A) Module with SM LC-UPC Front	760244921	FACT-MMDLKE-A
Connectors		
FACT RH 2x12f MPO (Meth A) Module with SM LC-UPC Front	760244922	FACT-MMDRKE-A
Connectors		
FACT LH 2x12f MPO (Meth B Enhanced) Module with SM LC-	760244558	FACT-MMDLKE-B
UPC Front Connectors		
FACT RH 2x12f MPO (Meth B Enhanced) Module with SM LC-	760244559	FACT-MMDRKE-B
UPC Front Connectors		
FACT LH 2x12f MPO (Meth A) Module with LC-OM4 Front	760244853	FACT-MMDLCH-A
Connectors		
FACT RH 2x12f MPO (Meth A) Module with LC-OM4 Front	760244854	FACT-MMDRCH-A
Connectors		
FACT LH 2x12f MPO (Meth B Enhanced) Module with LC-	760244650	FACT-MMDLCH-B
OM4 Front Connectors		
FACT RH 2x12f MPO (Meth B Enhanced) Module with LC-	760244651	FACT-MMDRCH-B
OM4 Front Connectors		
FACT LH 24f MPO (Meth A) Module with LC-OM4 Front	760244855	FACT-MMDLC2-A
Connectors		
FACT RH 24f MPO (Meth A) Module with LC-OM4 Front	760244856	FACT-MMDRC2-A
Connectors	760044650	FACT MADE CO. D.
FACT LH 24f MPO (Meth B Enhanced) Module with LC-OM4	760244652	FACT-MMDLC2-B
Front Connectors	700244052	FACT MANDECO D
FACT RH 24f MPO (Meth B Enhanced) Module with LC-OM4	760244653	FACT-MMDRC2-B
Front Connectors  FACT LH 2x12f MPO (Meth B Enhanced) Module with LC-	760244849	FACT-MMDL5H-B
OM5 Front Connectors	100244043	I-WC1-INIINIDE2U-D
FACT RH 2x12f MPO (Meth B Enhanced) Module with LC-	760244850	FACT-MMDR5H-B
OM5 Front Connectors	100244030	
FACT LH 24f MPO (Meth B Enhanced) Module with LC-OM5	760244851	FACT-MMDL52-B
Front Connectors	700277031	THE INTOLUCE D
FACT RH 24f MPO (Meth B Enhanced) Module with LC-OM5	760244852	FACT-MMDR52-B
Front Connectors	. 552 1 1552	

**Table 17: MPO Modules Ordering Information** 

## 5.5 FACT Cable Termination Kits

FACT cable termination kits enable quick and easy termination of all commonly used cables either with Cable Termination Units (CTUs) directly on the FACT chassis or with Cable Attachment Plates for the larger and/or stiff cables in the cable side duct.

FACT CTUs are specifically designed for termination of most commonly used cables (diameter range: 5-15mm) directly on the FACT chassis. This allows the installer to pre-terminate a cable on the CTU outside the frame.

When using the FACT Frame solution, it is recommended to use the FACT-FRACCCTUXE series.

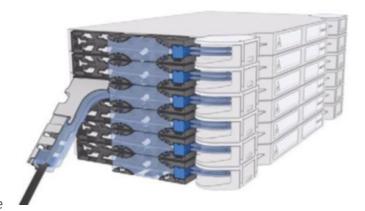


Figure 13: Installed FACT-FRACCCTU6E with Cable Exit in the Bottom Left Corner

This CTU series which can only be used with the FACT frame (i.e. not with FIST GR2/3 frames), accommodates stiffer cables and cable diameters up to 15 mm.

FACT Cable Attachment Plates are used for securing very stiff/thick cables and fanout cables in the side duct.

The table below outlines the recommended FACT Cable Termination Unit (CTU) types available for use with the FACT ODF Chassis based on chassis size:

Description	Diameter Range (cable or flex tube)	Catalogue Number (MID)	Catalogue Description
FACT 1E Cable Termination	1 to 4 cables with diameter 5 to 8,5 mm	760243102	FACT-FRACCCTU1E
Unit (CTU)	or 1 cable with diameter 8,5 to 15 mm	760242402	FACT FDACCCTURE
FACT 2E Cable Termination Unit (CTU)	1 to 4 cables with diameter 5 to 8,5 mm or 1 cable with diameter 8,5 to 15 mm	760243103	FACT-FRACCCTU2E
FACT 3E Cable Termination	1 to 4 cables with diameter 5 to 8,5 mm	760243104	FACT-FRACCCTU3E
Unit (CTU)	or 1 cable with diameter 8,5 to 15 mm		
FACT 4E Cable Termination	1 to 4 cables with diameter 5 to 8,5 mm	760243105	FACT-FRACCCTU4E
Unit (CTU)	or 1 cable with diameter 8,5 to 15 mm		
FACT 5E Cable Termination	1 to 4 cables with diameter 5 to 8,5 mm	760243106	FACT-FRACCCTU5E
Unit (CTU)	or 1 cable with diameter 8,5 to 15 mm		
FACT 6E Cable Termination	1 to 4 cables with diameter 5 to 8,5 mm	760243107	FACT-FRACCCTU6E
Unit (CTU)	or 1 cable with diameter 8,5 to 15 mm		

**Table 18: FACT Cable Termination Unit (CTU) Ordering Information** 



#### All FACT-FRACCCTU Kits include:

One side guide channel part per chassis element count One angled part per kit

#### **Cable Preparation:**

For cables with diameter greater than 15mm, strip cable at frame entrance and use corrugated tube as transport tubing to the FACT chassis

The table below outlines the FACT Cable Attachment Plate types available for use in the FACT ODF Frames:

Description	Unit Picture	Catalogue Number (MID)	Catalogue Description
FACT Cable Attachment Plate for Frame Side Duct & Cable to Flex Conversion Component Set		760243108	FACT-FRACCCAPL
FACT Cable to Flex Conversion Component Set for Cable Attachment Plate		760243111	FACT-FRACCCTF
FACT Fan-Out Plate (FOPL) for up to 32 Fan-Out Cables (includes 8 Fan-Out fixations)		760243109	FACT-FRACCFOPL
FACT Fan-Out Fixation Component Sets (set of 8 for Fan-Out Fixation Plate)		760243112	FACT-FRACCFOFK-8

**Table 19: FACT Cable Attachment Plate Ordering Information** 

## 5.6 FACT in FIST-GR2/3 Frames

The FACT Optical Distribution Frame system is also compatible for use with CommScope's all-purpose FIST-GR3 frames. Based on the ETSI Standard (600mm wide), the frame provides intuitive fibre management and handling, supporting up to 2,688 single (simplex) LC connections in a single frame.

The table below outlines the FIST-GR3 Frame types available for use with the FACT ODF Chassis:

Description	Unit Picture	Dimensions (H x W x D mm)	Max. Frame (Simplex) Capacity	Catalogue Number (MID)	Catalogue Description
FIST-GR3 Frame with 2x 150mm Side Ducts		2200 x 900 x 300	2,688 LC or 1,344 SC	CS6171-000	FIST-GR3-R-150/150- 22-2
FIST-GR3 Frame with 1x 150mm and 1x 300mm Side Duct		2200 x 1050 x 300	2,688 LC or 1,344 SC	CS6177-000	FIST-GR3-R-150/300- 22-2
FIST-GR3 Frame with 2x 300mm Side Ducts		2200 x 1200 x 300	2,688 LC or 1,344 SC	CS6174-000	FIST-GR3-R-300/300- 22-2

**Table 20: FIST-GR3 Frame Ordering Information** 



#### All frames include:

Two side ducts with integrated ETSI mounting profiles to manage and house cables, pigtails, patch cords

Base duct measures 8HU (200mm)

Loose drums (15x)

Cable attachment plates and drum plates integrated into management panel

Wall and back-to-back connection kits

Earthing kit

Adjustable feet

Intuitive installation instructions and footprint template

Rack-painted (powder-coated) light grey (RAL-7035)

Label kit for colour identification of the spools

All hardware and fasteners

The following table summarises the accessories available for the FIST-GR3 Frame when used with the FACT ODF products:

Description	Picture	Catalogue Number	Catalogue
Description	ricture	(MID)	Description
FACT Backplate, mounts four (4) FACT Elements in FIST-GR3 Frame FACT Backplate, mounts four (4)		760239955	FACT-ACCBPL4E
FACT Elements in FIST-GR3 Frame FACT Backplate, mounts twenty- eight (28) FACT Elements in FIST- GR3 Frame		760239956	FACT-ACCBPL28E
FIST-GR3 Spool Labels		860638561	FIST-GR3-LABEL- COLOR-CODE-2.2
FIST-GR3 Frame Door Kit for 150mm Side-Duct (2.2m)		CZ9821-000	FIST-GR3-D-150-22-2
FIST-GR3 Frame Door Kit for 300mm Side-Duct (2.2m)		CZ9825-000	FIST-GR3-D-300-22-2
FIST-GR3 Frame Door Kit for 600mm Central Section (2.2m), w/lock		CZ9827-000	FIST-GR3-D-600-22-2
FIST-GR3 Frame Top Cover Kit for 150mm Side-Duct (300m deep)		CZ9047-000	FIST-GR3-T-150
FIST-GR3 Frame Top Cover Kit for 300mm Side-Duct (300m deep)		CW5887-000	FIST-GR3-T-300
FIST-GR3 Frame Top Cover Kit for 600mm Central Section (300m deep)		CK8631-000	FIST-GR3-T-600
FIST-GR3 Frame Side or Back Panels (set of two)		CS9084-000	FIST-GR3-P-300-22
FIST-GR3 Storage Bay (includes a fibre passage for back-to-back configuration)		CV7092-000	FIST-GR3-SB-300-22-2

Description	Picture	Catalogue Number (MID)	Catalogue Description
FIST-GR3 Frame Extended Base Duct for 150 mm side duct Increases patch cord capacity at bottom of frame; incoming feeder cable must come from top of frame		EF7794-000	FIST-GR3-BD-150/215
FIST-GR3 Frame Extended Base Duct for 300 mm side duct Increases patch cord capacity at bottom of frame; incoming feeder cable must come from top of frame		EF7793-000	FIST-GR3-BD-300/215
FIST-GR3 Frame Side-by-Side Brackets (set of two)		CC9465-000	FIST-GR3-STS
FIST GR2/3 Kit to Lead Jumpers from Front to Back of Rack (required when extended base ducts are used)		EF8196-000	FIST-GR3-BD-BTB- 600/215
FIST GR2/3 Containment Bracket Kits (maintain Patch Cords in Side- Duct)		315826-000	FIST-GR2-PCBR-10
FIST GR2/3 Outer C-Cable Clamp for 1 Cable (28-34mm diameter)		C77537-000	FIST-GR2-CAA-1-28/34

Description	Picture	Catalogue Number (MID)	Catalogue Description
FIST GR2/3 Loose Tube Protection/Transportation Tube (Flex Conduit), 12mm diameter, 50 meters length		E43826-000	FIST-GS-FLEX-12-50

**Table 21: FIST-GR3 Frame Accessories Ordering Information** 



### **Important Note:**

It is recommended when installing the FACT ODF Chassis in a FIST GR2/3 Frame that the 28E Backplate be used

The following table summarises the Cable Attachment Plate options for the FIST-GR2/3 Frames:

Description	Picture	Catalogue Number (MID)	Catalogue Description
FIST GR2/3 Cable Attachment Plate for IFC and Breakout Cable, includes L-Cable Attachment Plate (supports up to ten IFC or Breakout cables and mounts perpendicularly in side-duct)		EG5792-000	FIST-GR3-BOIC-LPL
FIST GR2/3 Frame Backplate for 300mm side duct - accommodates up to nine (9) L-Cable Attachment plates (FIST- GR2-BOIC-LPL)		D35100-000	FIST-GR2-BOIC-BPL
FIST-GR3 Frame Internal Extension Cable Attachment Plate for 150 mm Side-Duct		CW8226-000	FIST-GR3-CAP-150-INT
FIST-GR3 Frame Internal Extension Cable Attachment Plate for 300 mm Side-Duct		EG0850-000	FIST-GR3-CAP-300-INT

**Table 22: FIST-GR3 Cable Attachment Plate Ordering Information** 

If you are using a FACT chassis/shelf in a FIST-GR3 frame (or another compatible frame), please use the FACT-ACCCTU Cable Termination Unit (CTU) series and FIST-GR3 cable attachment. The following table summarises the Cable Termination Unit options for use with the FIST-GR2/3 Frames:

Description	Picture	Catalogue Number (MID)	Catalogue Description
FACT Cable Termination Unit (CTU) for one cable (max. diameter 15mm) or one flex tube (diameter 12mm - 16 mm), includes transparent cover		760239897	FACT-ACCCTULLT
FACT Cable Termination Unit (CTU) for one cable (max. diameter 15mm) or one flex tube (diameter 12mm - 16 mm)		760239898	FACT-ACCCTUMLT
FACT Cable Termination Unit (CTU) for one IFC-Cable (max. diameter 8.5mm) or two IFC-Cables (max. diameter 6mm)		760239899	FACT-ACCCTUMIFC
FACT Cable Termination Unit (CTU) Trumpet, for 24 pigtails (diameter 1.8mm - 2.4mm)		760239900	FACT-ACCCTUMP24
FACT Cable Termination Unit (CTU) for one IFC-Cables (max. diameter 8.5mm) or two IFC-Cables (max. diameter 6mm)		760239951	FACT-ACCCTUSIFC
FACT Cable Termination Unit (CTU) for one cable (max. diameter 8.5mm) or one flex tube (diameter 6mm - 10mm)		760239952	FACT-ACCCTUSLT

Table 23: FACT Cable Termination Unit (CTU) for FIST GR2/3 Frames Ordering Information

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow.

Discover more at commscope.com

### COMMSC PE®

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, CommScope makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. CommScope obligations shall only be as set forth in CommScope Standard Terms and Conditions of Sale for this product and in no case will CommScope be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of CommScope products should make their own evaluation to determine the suitability of each such product for the specific application.

FACT, NG4, NG4access, FIST, CommScope (logo), and CommScope are trademarks of the CommScope group of companies and its licensors. All other trademarks are the properties of their respective owners.