

Agile Solution for Data Centre Lynx-CustomFit™ Field assembly Splice-On Connector

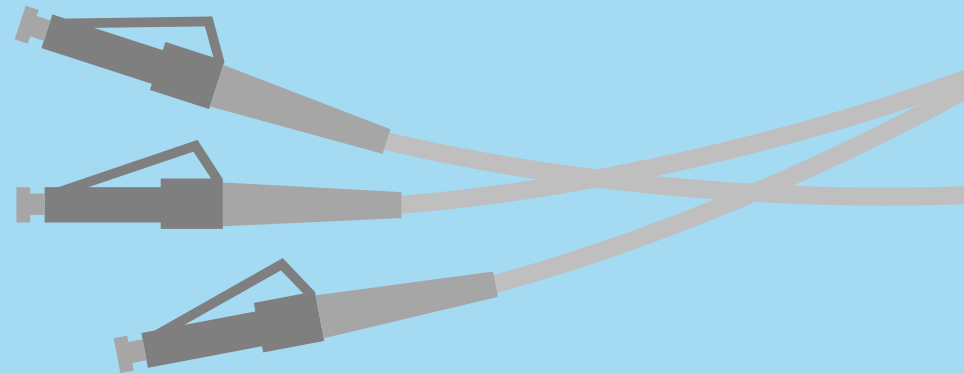
SUMITOMO ELECTRIC INDUSTRIES, LTD.

Mar, 2024



Problems at the Data Centre

Conventional Pigtail Solutions present issues at every step of the installation.



Problems at the Data Centre



On-Site

- Difficult cable installation
- Handling of excess length
- Rack space
- Urgent maintenance

Management

- Time consuming pre-survey
- Ordering process
- Delivery lead time
- Stock management



Solutions at the Data Centre

Custom solutions which prove massive efficiencies across stock management, cabling, maintenance, and manufacturing.



Solutions at the Data Centre



On-Site

- Plug head less cable laying
- Perfect length
- Rack space saving
- Quick recovery

Management

- No pre-survey
- No patch cord design
- Time saving
- Simple stock management



First, It Starts With Smooth Cable Installation



No Pre-Survey and Cabling Design

Conventional Pigtail Cabling

Troublesome order procedure
or you have to have many SKU in stock



6. Installation



Lynx-CustomFit™ Solution

Just prepare Lynx connectors and bulk cables, and immediately start!



1. Installation



Slackless Cable Management

Conventional Plug & Play Solution



Chaotic routing due to use of fixed length pre-terminated cords



Lynx-CustomFit™ Solution



Slackless cable management with Lynx connectors



Rack Space Saving (Depth)

Conventional Pigtail Solution



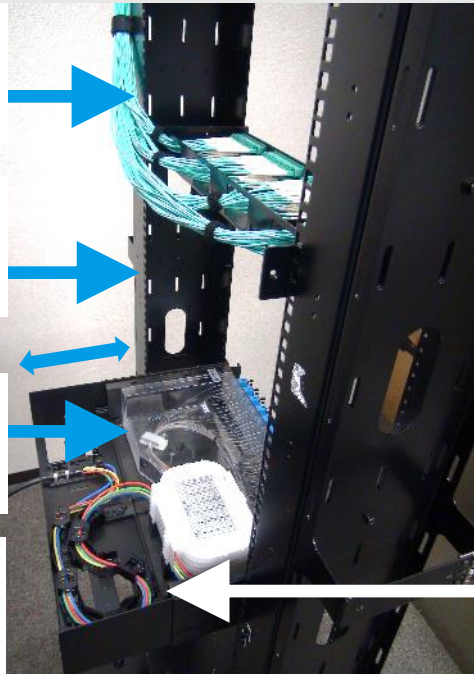
Conventional tray with splice tray

Lynx does not need splicing tray so the panel can be smaller

This much shortened

This is panel for conventional pigtail solution

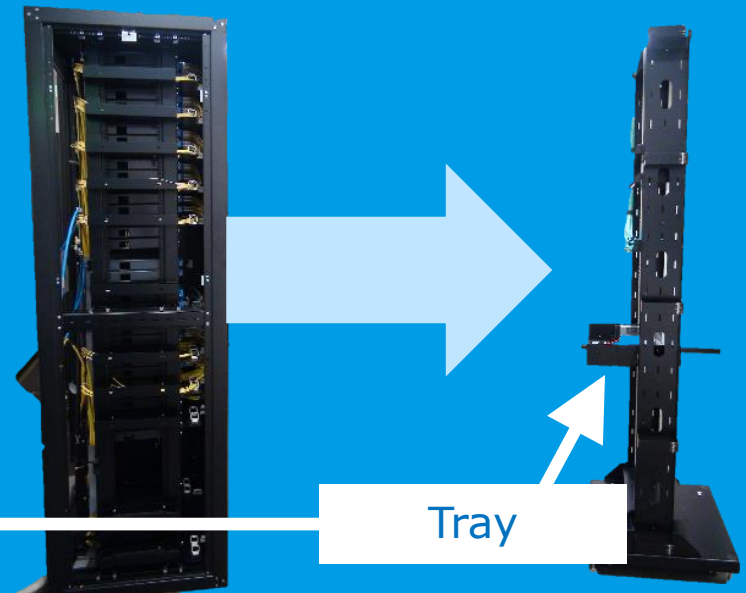
It needs space for splice tray



Lynx-CustomFit™ Solution



Shallow panel without splice tray applicable

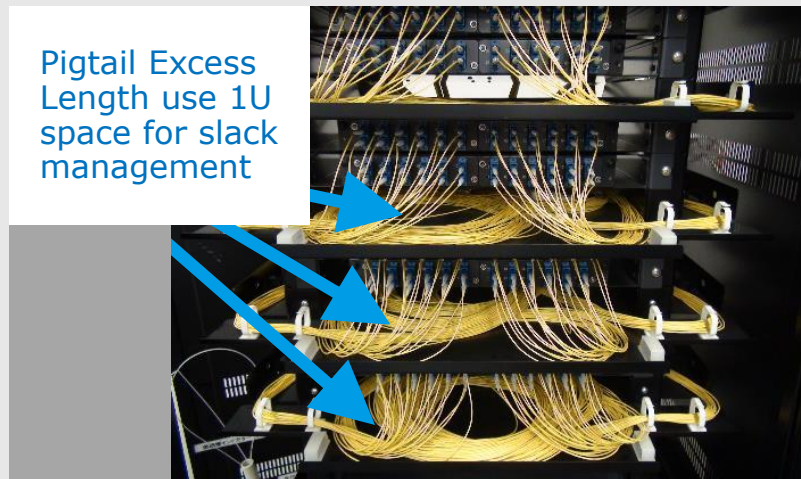


Rack Space Saving (Vertical)

Conventional Pigtail Solution



Conventional tray with splice tray

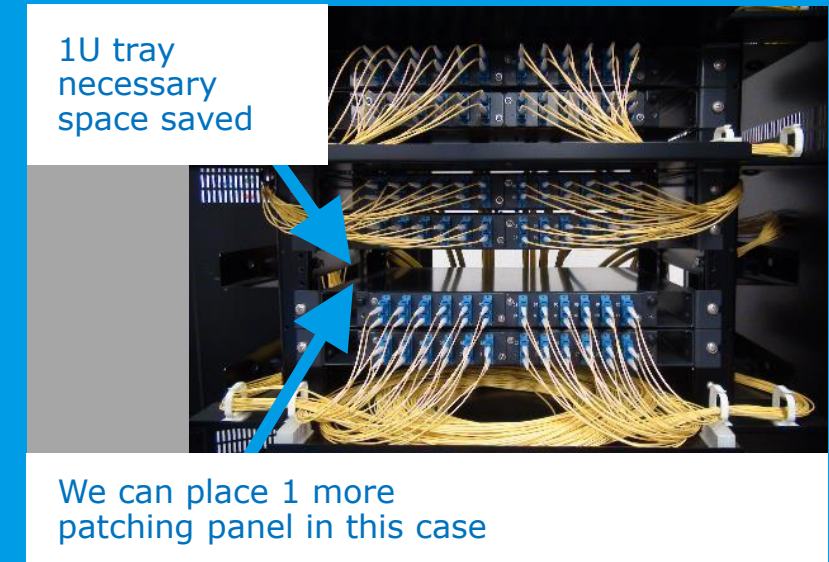


Pigtail Excess Length use 1U space for slack management

Lynx-CustomFit™ Solution



Shallow panel without splice tray applicable

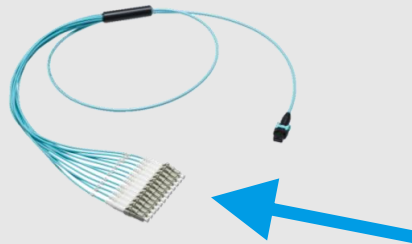


1U tray necessary space saved

We can place 1 more patching panel in this case

Urgent Maintenance (In Case of No Inventory)

Conventional Plug & Play Cabling



If only one connector end is dysfunction, you have to replace all of the cable.



Diagnose



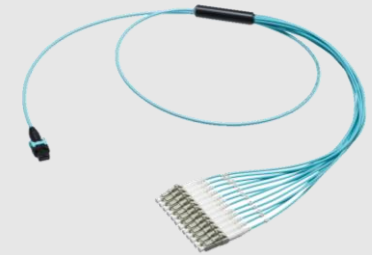
Order



Deliver

Only One is **NG**

Replace all



Lynx-CustomFit™ Solution



Just prepare Lynx connectors and replace only one connector immediately!

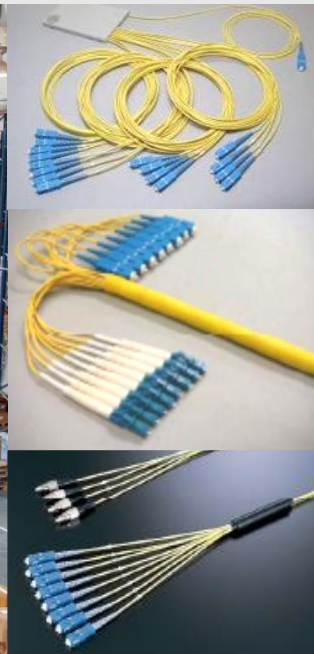


Quick Recovery

Stock Management

Conventional Pigtail Cabling

- Need to have various kinds of SKU
- Occupy stock yard



Lynx-CustomFit™ Solution

- Just stock Lynx connectors and bulk cables
- Less stock space required



100pcs of connectors can be stored in one cardboard box

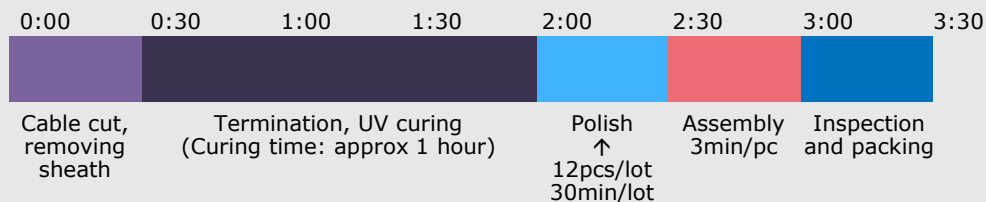
Manufacturing

Conventional Method



- Longer production lead time
- Skilled operators are required
- Consumables are expensive

72c Trunk Cable, 12 x MPO/Cable

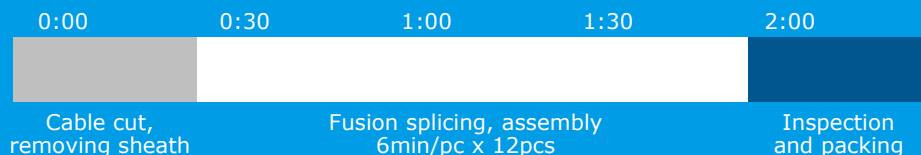


Lynx-CustomFit™ Solution





















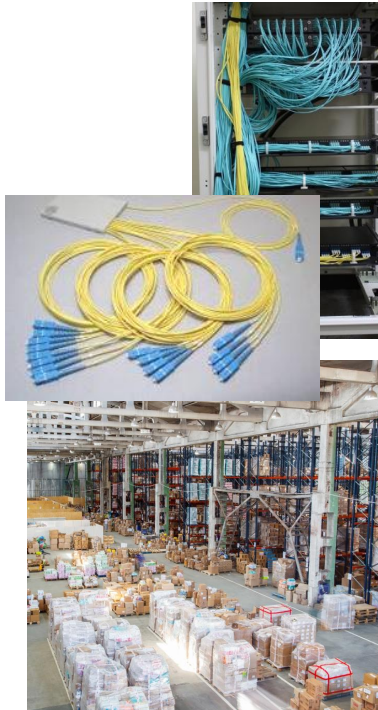
- Shorter production lead time
- Lower initial investment
- Skilled operators not required

72c Trunk Cable, 12 x MPO/Cable



Summary: Lynx-CustomFit™ Solution Solves Your Problems

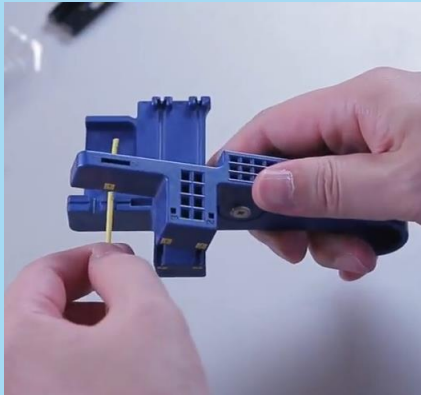
Problems at Data Centre:	Conventional 	Lynx-CustomFit™ Solution 
Difficult Cable Installation		
Handling of Excess Length		
Rack Space		
Urgent Maintenance		
Time Consuming pre-survey		
Ordering Process		
Delivery Lead time		
Stock Management		



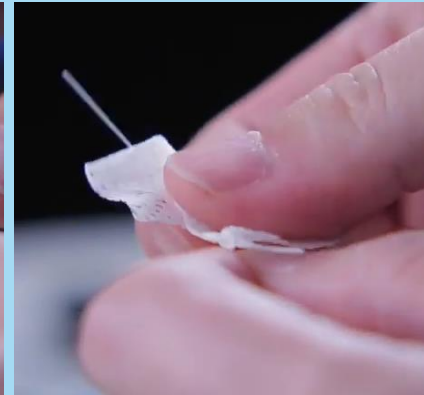
Lynx-CustomFit™ Field Assembly Splice-On Connector

STEP 1

Cord Preprocessing



Remove and slit the cord sheath using the Lynx strip & slit tool.



Remove the buffer and cleave the fibre.



Lynx-CustomFit™

Field Assembly Splice-On Connector

STEP 2

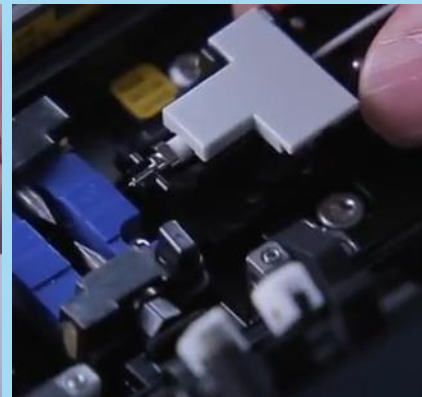
Fusion Splicing



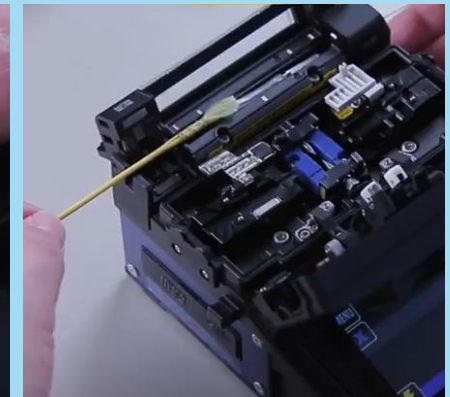
Set the fibre holder with the cord on the left side.



Set the ferrule into the holder and place it on the right side.



Close the wind hood and start the splice.



Move the spliced assembly into the oven and start heating.

Lynx-CustomFit™ Field Assembly Splice-On Connector

STEP 3

Assembly



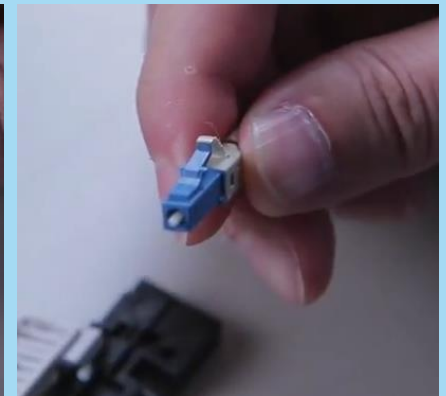
After the heating, remove the connector from the oven.




While rotating the rear housing, grip the Kevlar® strands.




Remove the dust cap.



Finished and ready to use.



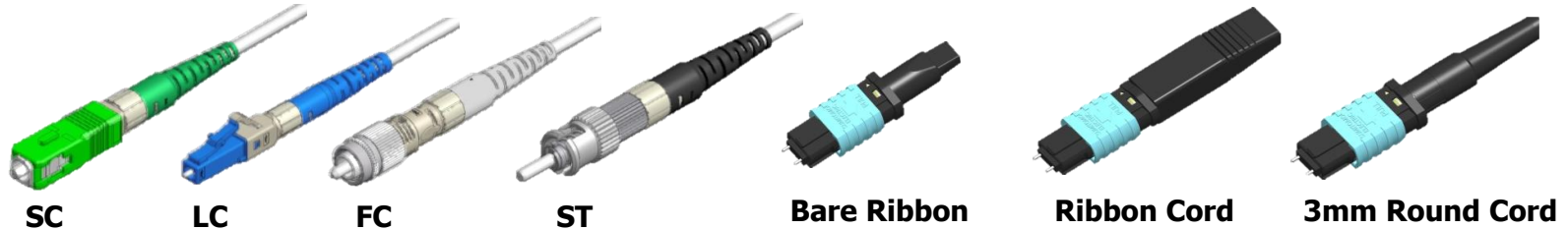
A New Cabling Experience at your Data Centre



Reference

Lynx-CustomFit™ Lineup and Specification

Full Lineup for all needs



Standards and Optical Performance

	SC	LC	FC	ST	Q8MPO / 12MPO
Interface Standard	IEC61754-4	IEC61754-20	IEC61754-13	IEC 61754-2	IEC 61754-7-1
Insertion Loss (against master plug)	SMF: Ave. 0.2dB, Max. 0.3dB MMF: Ave. 0.1dB, Max. 0.25dB				SMF(Std Loss) : Max.0.75dB SMF(Low Loss): Max. 0.4dB MMF(Low Loss): Max. 0.4dB
Return Loss (against master plug)	SMF: ≥ 60dB (APC), ≥ 55dB (UPC) MMF: ≥ 30dB (PC)				SMF: ≥ 55dB

Lineup for Single Fibre Connector (Lynx-CustomFit™ Ver.3)

Connector type	Polishing type	Fibre type	Connector color	Fibre / Cord diameter	Boot type
SC LC FC ST*1	APC	SM	Green	250µm/900µm *2 2mm with 900µm Tight Buffer 2mm with 900µm Loose Buffer 3mm with 900µm Tight Buffer	Standard boot Short boot *3
	UPC	SM	Blue		
	PC	MM50(OM2)	Black		
		MM50(OM3)	Aqua		
		MM62.5(OM1)	Beige		

*1 ST connector is available for SM(UPC polishing) and MM(PC polishing).

*2 250µm/900µm is applicable for the following; 250µm, 900µm Tight buffer, 900µm Loose Tube and 900µm Loose Buffer

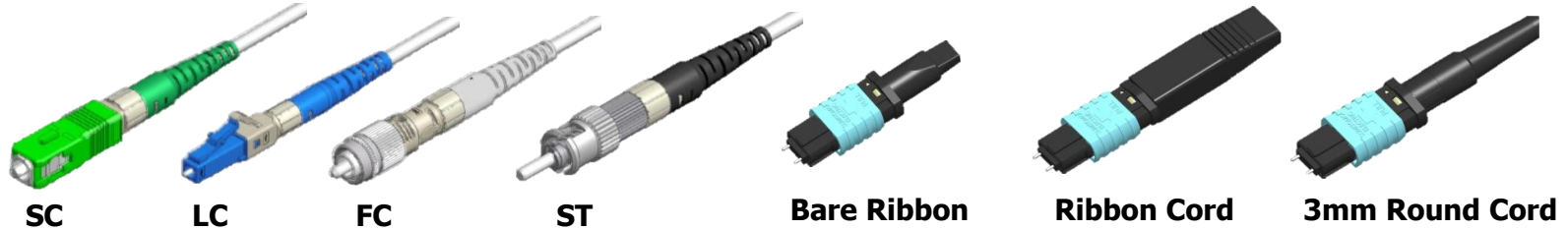
*3 Short boot is available for SC and LC type of 250µm/900µm tight buffer.

Lineup for MPO Connector (Lynx-CustomFit™ Ver.2)

Guide pin	Fibre/Polishing type	Connector color	Cord diameter
With / Without guide pin	SM Low loss	Yellow	RBN: 8c/12c Bare Ribbon RND: 8c/12c Round cord (φ 3mm) RBC: 8c/12c Ribbon cord
	SM Standard loss	Green	
	MM50(OM2) Low loss	Black	
	MM50(OM3) Low loss	Aqua	

Lynx-CustomFit™ Lineup and Specification

Full Lineup for all needs



Assembly Tool

Tool Name [Part No.]		An appropriate Sumitomo Electric fusion splicer	Fibre cleaver [FC-8R]	Jacket remover [JR-M03]	Thermal jacket remover [JR-7]	Sheath splitter [LYNX-CORDTOOL-1.6-2.4]	Sheath splitter [LYNX-CORDTOOL-2.0-3.0]	Kevlar snips [N-57]	ST assembly tool [LYNX-ST-AT-01]
Appearance									
Single Fibre	Cord	● with all current models	●	●	—	● for 1.6/2.4mm cord	● for 2/3mm cord	●	● for ST connector
	Fibre	● with all current models	●	●	● for $\phi 0.2\sim 0.4\text{mm}$ fiber	—	—	—	● for ST connector
MPO	Round Cord / Ribbon Cord	● with ribbon fibre splicer	●	—	●	—	● for round cord / ribbon cord	●	—
	Bare Ribbon	● with ribbon fibre splicer	●	—	●	—	—	—	—

Fibre Holders for Single Fibre Connector (Lynx-CustomFit™ Ver.3)

Type	Part No. Left side (Setting fibre / cord)	Part No. Right side (Setting ferrule sub-assembly)
250 μm fibre	FHS-025 or LYNX-S-LB	LYNX-C-PLS (Plastic, Standard) * or LYNX-C (Metal, Option)
900 μm Tight Buffer	FHS-09 or LYNX-S	
900 μm Loose Tube 900 μm Loose Buffer	LYNX-S-LB	
2mm cord with 900 μm Tight Buffer	LYNX-S	
2mm cord with 900 μm Loose Buffer	LYNX-S-LB	
3mm cord with 900 μm Tight Buffer	LYNX-S	

* 1 pc of LYNX-C-PLS holder is supplied with every 100 connectors.

Fibre Holders for MPO Connector (Lynx-CustomFit™ Ver.2)

Type	Part No. Left side (Setting fibre / cord)	Part No. Right side (Setting ferrule sub-assembly)
Bare Ribbon	12-fiber: FHM-12V 8-fiber: FHM-8	LYNX2-C(MT) (Plastic, Standard) * or LYNX2-C(MT) Metal (Metal, Option)
Round Cord		
Ribbon Cord		

* 1 pc of LYNX2-C(MT) holder is supplied with every 100 connectors.