Data Centre Interconnect

System Catalogue

stl.tech

Data Centre Interconnect Solutions

Cloud computing has changed the traffic patterns in data centres. From a north-south traffic in the past, data centre architectures have evolved to increasing east-west traffic for load-balancing as well as sharing resources, traversing across within a data centre and between data centres in a campus or a metro.

STL offers end-to-end Data Centre Interconnect solutions that include

1. High-count ribbon fibre cables – from 96 up to 6912 fibres – meeting IEC 60794-5-10, ITU-T, RoHS and REACH
2. High-density splice closures that support up to 1728 fibres for aerial networks, pole, wall, underground networks, inside handholes / manholes for trunk, branch and pot-head applications,
3. Splice Bay, a 19" frame-mountable splice solution designed for applications where outside plant cables need to be spliced to indoor cables requiring a high-density (up to 2016 splices per bay) transition point
4. Optical Cross-connect frames that can organize splicing up to 4320 fibres in 45U height frames inside meet-me-rooms, entrance facilities for transitioning outdoor to indoor cables

Modular and Compact Solutions

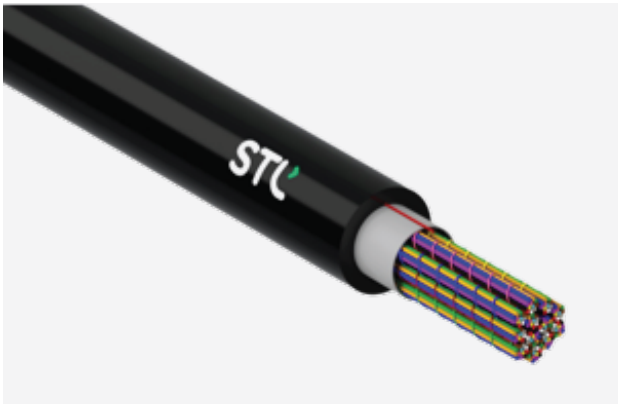
High Density Modules

Easy to Install Products

High Count OFC - STL Celesta

96F - 6912F Intelligently Bonded Ribbon (IBR) Cable

STL's Celesta Ribbon Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The innovative intermittently bonded ribbon design results in dense fibre packing, thus smaller cable diameter and better duct asset utilisation. The cable can be both pulled and blown into the ducts, and the ribbon matrix itself can be easily furcated into a stranded fibre if required.



Available from as low as 96 fibre up-to 6912 fibre count, the cable offers an outstanding solution for outside plant high density distribution and access fibre network builds and for high capacity inter data centre links.

STL Celesta IBR cables are compliant with International performance and testing standards

IEC 60794 | ITU-T | RoHS | Reach | ICEA 640/744

With Industry lowest A2 macrobend fibre

Made using G.657.A2 bend insensitive optical fibre
ATT 1310/1550 = 0.35/0.23 vrs. Ribbon standard 0.4/0.3

Easy to install

Blow optimized micro ribbon cable, but at same time robust enough for pull installation
Easy ribbon routing/handling in splice tray – zero preferential ribbon bend,

Mess free and faster splice

Mass splice with new and existing ribbon solutions
Single fibre splice compatible – safe and fast ribbon separation into 12 loose fibres

Saves installation cost

Saves duct cost - IBR roll up and fill the space inside of a cable efficiently
Accessories miniaturization - Micro ribbon cables and ultra ribbon cables bend tightly

Joint Closure - CORC2/ ORC2

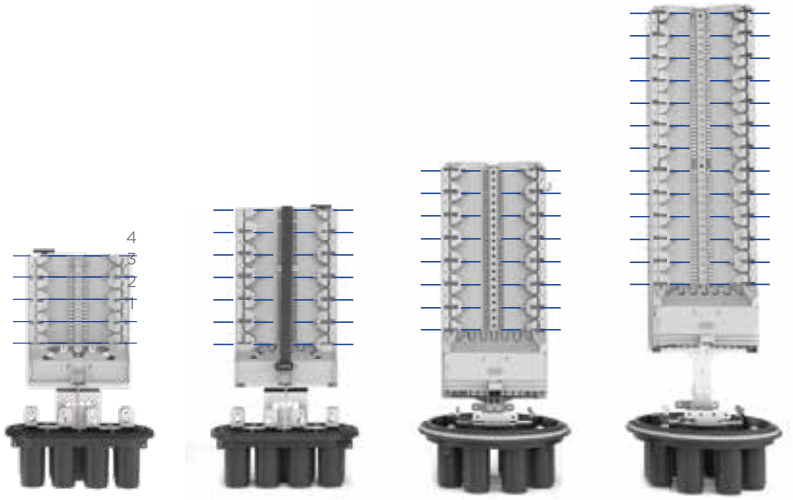
Compact Optical Ribbon Closure

STL CORC2 and ORC2 are a compact low profile splice closure designed to maximise storage within space constrained locations. STL range of ribbon closures have an innovative loop storage basket, designed for the Intermittently Bonded Ribbons (IBR).The basket ensures optimal storage and management of the midspan ribbon bundles. This closure is easy to install in the toughest of the locations with the new cold sealing kits ideal for IBR cables.

FEATURES AND BENEFITS

- Designed especially for the management and splicing of Intermittently Bonded Ribbon (IBR) cables.
- Capacity up to 432F (CORC2) and 1728F (ORC2) ribbon splices
- Available with Multi-elements cassettes 2x and 3x ribbon splice holders

Part Number	Description	Height (mm)	Max. Splice Modules Capacity
OPTO-CORC 2-AA	Compact Splicing Closure with oval A BASE 6 ports + A Dome	380 mm	4
OPTO-CORC 2-AB	COMPACT SPLICING closure with oval A BASE 6 ports + B Dome	450 mm	6
OPTO-ORC2-AB-NN00	Splicing Closure closure with 1 oval & 6 round ports base	525 mm	14
OPTO-ORC2-AC-1728	Splicing closure with 2 oval & 8 round ports base	770 mm	24



OPTO-CORC2-AA
4 SAMX
(One side only)

OPTO-CORC2-AB
6 SAMX
(One side only)

OPTO-ORC2-AB
7 SAMX
Per side (X2)

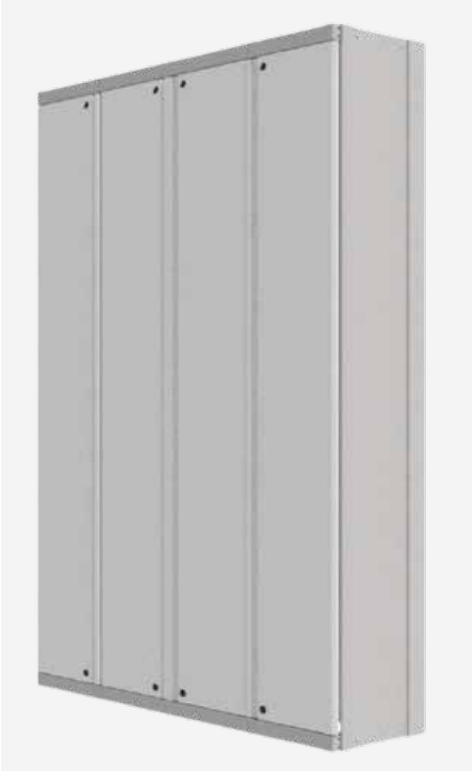
OPTO-ORC2-AC
12 SAMX
Per side (X2)

Part Number	Description
SAMX-HD3-R/R	Splice module made up of a WAPX and 3 HD trays with IBR splice holder (1 IBR per tray) max capacity (12)x6=72
SAMX-HD3-2R	Splice module made up of a WAPX and 3 HD trays with IBR splice holder (2 IBR per tray) max capacity (12+12)x3=72
SAMX-HD3-3R	Splice module made up of a WAPX and 3 HD trays with IBR splice holder (3 IBR per tray) max capacity (12+12+12)x3=108

Racks - OXF

Optical XConnect Frame

The OXF rack is a lightweight, modular metal frame system designed for high flexibility and compactness in Central Office applications. Offering multiple configuration options and easy customization, OXF racks support up to 4,272 fibres in a 44U frame, with efficient cable management and cost-saving pre-assembled solutions.



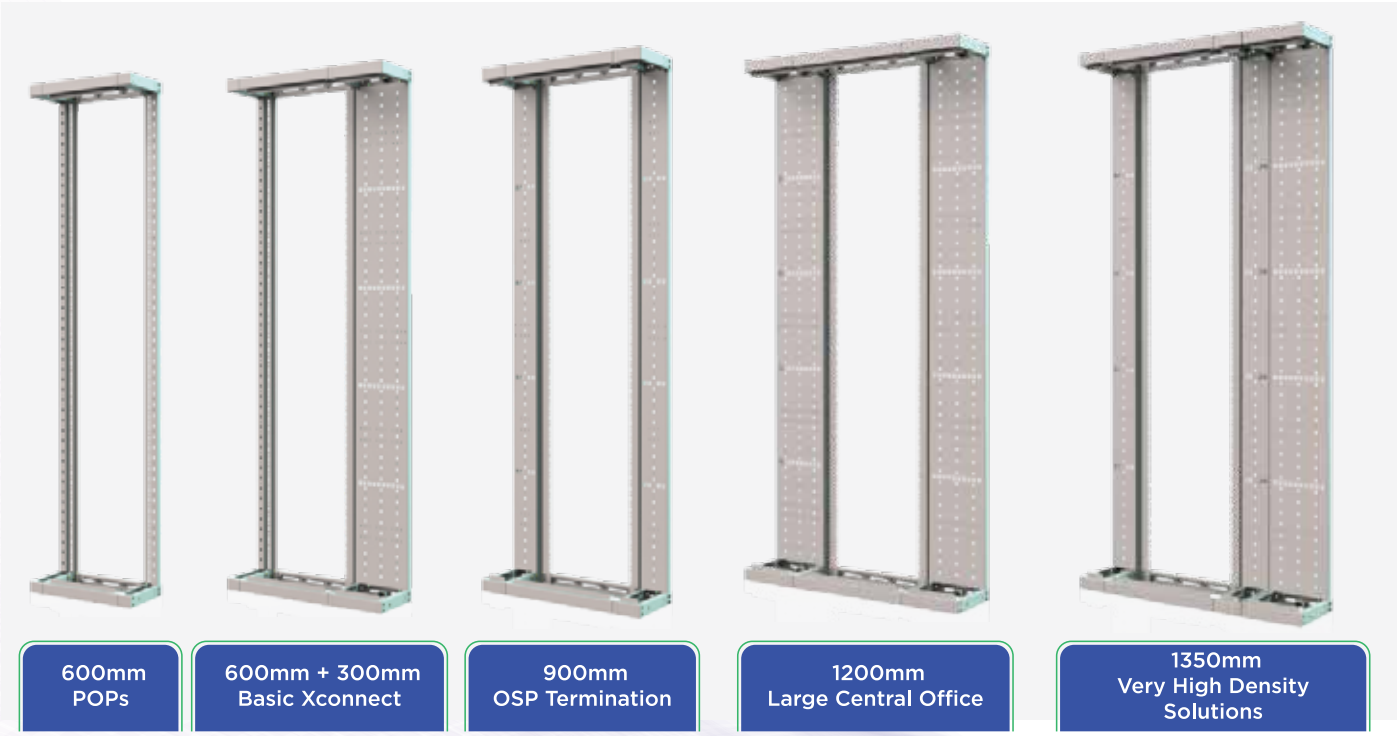
FEATURES AND BENEFITS

- **High Modularity & Flexibility:** Easily configurable (open, partially open, or closed) to meet specific space and layout needs.
- **Versatile Installation:** Supports row, back-to-back, and stand-alone setups.
- **Efficient Cable Management:** Integrated area supports 4m patch cables per cross-connection.
- **Optional 19" Uprights:** Added versatility for standard rack equipment.
- **Complete Cable Fixation Portfolio:** Ensures secure and organized cabling.

AVAILABLE CAPACITIES

- 44x Shelves, 1RU subrack
- 22x Shelves, 2RU subrack
- 15x Shelves, 3RU subrack

AVAILABLE CONFIGURATIONS



Splice Bay

High-Density, Frame-Mountable Splice Solution for POP Applications

The STL Splice Bay is a robust 19" rack-mountable solution engineered for Point-of-Presence (POP) environments where seamless transition from outside plant cables to indoor cabling is essential. Designed for high-density deployments, this solution leverages STL splice trays to offer flexible and efficient splicing options.

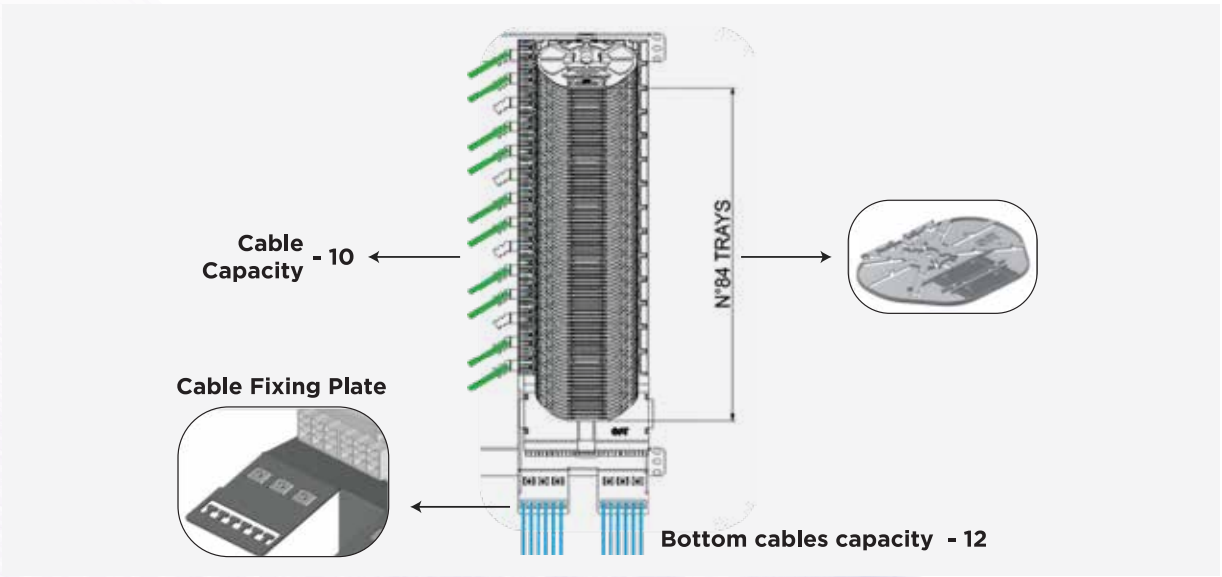
Compatible with single fibre, ribbon, and rollable ribbon configurations, the STL Splice Bay provides a compact, organized, and scalable platform that ensures reliability and ease of maintenance in mission-critical network applications.

FEATURES AND BENEFITS

- **High Splice Capacity:** Supports up to 2,016 splices per bay, enabling high-density fibre management in space-constrained environments.
- **Optimized Cable Management:** Ensures clear physical separation between outside plant (OSP) cables (routed from the bottom) and indoor cables (routed from the side) for organized, low-maintenance installations.
- **Minimal Cable Preparation:** Allows for short indoor cable stripping lengths with splice cassettes positioned close to cable entry points, reducing installation time and effort.
- **Integrated Splice Tray System:** Features self-supporting SAM splice trays for secure, efficient, and modular splicing.
- **Reduced Congestion Risk:** Intelligent design minimizes the risk of fibre congestion by maintaining dedicated pathways for OSP and indoor cable routing.

SPECIFICATIONS

Standard Type	Units	Dimensions (mm)		Rack Width (in)	Trays Number	Total Splice Capacity
		Height	Depth			
16 Rack Unit	15U + 1U (Spare Height)	710	178 (with trays)	19	168	2016



Pivoting Subracks - nPTD

New Pivoting Tray Drawer

The STL New Pivoting Tray Drawer (nPTD) is a compact and flexible fibre management solution designed for both splicing and patching applications. Built in a standard 19" metallic rack or case format with a removable front cover, the nPTD ensures easy access and a clean, organized setup.

Its internal pivoting trays can be configured to open to either the left or right, based on user requirements, allowing quick and convenient access to fibres. Trays are available in patch-only or mixed patch-and-splice configurations and can be supplied preloaded with SC, LC, or other adapter and pigtail types.

The nPTD also supports the integration of passive optical components such as splitters, WDMs, and other devices within the tray layout, making it highly adaptable to evolving network needs.

Each subrack is finished in durable light gray RAL 7035 powder-coating and can be mounted on ETSI frames using optional bracket kits, ensuring compatibility with a wide range of telecom environments.

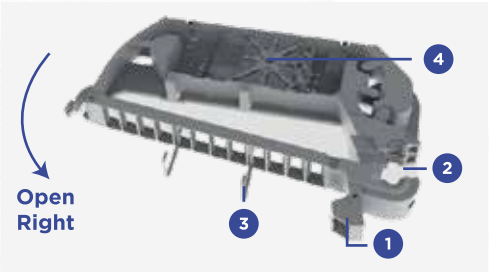
FEATURES AND BENEFITS

Versatile Tray Configuration: Supports patch-only or mixed patch-and-splice modes, with optional preloaded adapters and pigtails (SC, LC, etc.).
User-Friendly Pivot Design: Trays pivot left or right as requested, offering easy access for maintenance and installation without disturbing adjacent fibres.
Passive Component Integration: Easily accommodates PLC splitters, WDMs, and other optical passive devices directly within the tray layout.
Flexible Configuration Options: Available in both splice-only and splice-and-patch configurations to suit different installation requirements.

COMPONENTS

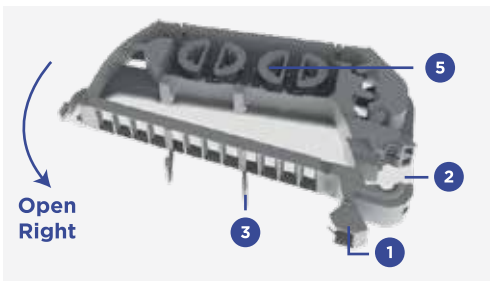
Bending control for out patched cords
Pivoting and openable fixing system for easy assembly

Patch cord sustaining hooks
RHD splice array module tray
Bending Control system with cable limiter drums



NPTD MIR or MIL

MIR Right Opening or MIL Left Opening This type of Subrack Tray is used to Patch & Splice



NPTD PIR or PIL

MIR Right Opening or MIL Left Opening This type of Subrack Tray is used only to Patch

HD Subracks - nPTD - HD

New Pivoting Tray Drawer HD

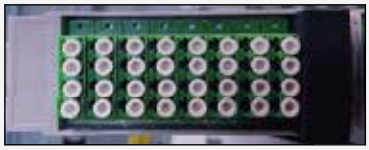
The STL nPTD HD (New Pivoting Tray Drawer) is a high-density solution designed for both splicing and patching fibre optic cables. Engineered in a standard 19" metallic subrack with a removable front cover, it offers robust protection and easy access during installation and maintenance.
The internal pivoting trays can be configured to open either to the right or left, based on customer preference, ensuring flexibility in cable management. Each tray allows for both splicing and patching within the same unit.
The subracks are finished in durable, light gray (RAL 7035) powder-coated paint for corrosion resistance and a professional appearance. Additionally, the nPTD HD can be mounted on ETSI frames using optional adapter brackets, making it suitable for a wide range of installation environments.

APPLICATIONS

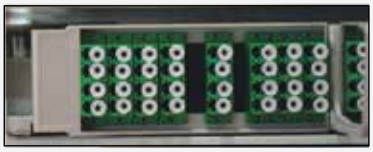
Inside and outside plant installations - central offices, telecommunication equipment rooms, pops
High density sub-rack patching and multi-cable interconnections

FEATURES AND BENEFITS

- **Dual Pivoting Trays:** Left and right pivoting trays rotate smoothly around a single pivot point, allowing fast, tool-free access for installation and maintenance.
- **Fibre-Friendly Movement:** The centralized pivot design minimizes stress on fibres by avoiding long, linear movements—preserving cable integrity over time.
- **Clear Port Identification:** Patch panel positions (1–96) are clearly marked on the top of the front panel, enabling quick identification and simplified port management.



1. Patch panel with easy front accessibility thanks to a removable bumper



2. The black bumper can be removed to create the necessary space

3. The space is useful for moving every single set of pigtail connections

CAPACITIES

No. of Units	nPTD - HD			
	No. of Trays	Splice per Tray	No. of Adapters	No. of Pigtails
3	12	24	Up to 72	Up to 288
2	8	24	Up to 48	Up to 192
1	4	24	Up to 24	Up to 96

Sliding Subracks - STD

Sliding Tray Drawer

The STL Sliding Tray Drawer (STD) is designed for high-density fibre management where full access to both sides of the connection is essential. It supports two primary functions: patching (with patch cords, breakout cables, or intra-facility cables) and splicing (with loose tube cables and pigtail patching).

FEATURES AND BENEFITS

- **Sliding Tray Design:** Enables full front and rear access to connections, ideal for installations where space and accessibility are critical
- **Flexible Connector Management:** Allows re-patching within the same tray with precise control over excess fibre length, reducing clutter and signal risk.
- **High-Density Capacity:** Each tray supports up to 12 terminations (or 24 using Small Form Factor connectors), maximizing space efficiency.
- **Swing-Removable Adapter Holders:** Provide easy access to individual connections for maintenance or changes without disrupting neighboring fibres.
- **Versatile Cable Entry:** Cable attachment kits are available for both side and rear entry, offering installation flexibility.
- **Splitter Integration:** Compatible with PLC, FBT splitters, and other optical passive components for advanced network configurations.
- **Preloaded Options:** Trays can be supplied preloaded with adapters and pigtails, simplifying installation and reducing setup time.

PST PATCH AND SPLICE TRAY

Tray base with Splice Area Cover
12 adapter clips
Splice protection holders
Adhesive label set
Pre-installed adapters
Pre-loaded pigtails or micro fan-out

POT PATCH ONLY TRAY

Tray base Adhesive label set
12 adapter clips
Pre-installed adapters

APPLICATIONS

Central Office racks
POPs - Street Cabinets
Data centre racks

Sliding Subracks - SSD

Sliding Splicing Drawer

The SSD Sliding Splicing Drawer is a versatile solution designed for efficient splicing of “cable-to-cable” and “cable-to-pigtail”. It is ideal for use within ODF racks alongside STD shelves for pigtail termination and is also compatible with 19” OXF racks.

FEATURES AND BENEFITS

SAMX Module Compatibility: Supports Sub Assembly Modules (SAMX) for streamlined, organized splicing operations.
Passive Component Integration: Allows the integration of optical passive components such as PLC splitters for advanced network configurations.
Secure Pigtail Termination: Equipped with an Optical Pigtail Kevlar Retainer to ensure safe and reliable pigtail anchoring.
Simplified Fibre Routing: Pre-assembled guiding tubes make fibre installation easier by directing fibres neatly from entry to splicing cassettes.
Ribbon Splicing Capability: Compatible with ribbon splice trays for handling Ribbon-to-Ribbon or Ribbon-to-Fanout splicing applications.
Flexible Configuration Options: Available in both splice-only and splice-and-patch configurations to suit different installation requirements.

Available in splice and splice & splice and patch options

Central Office racks
POPs - Street Cabinet
Data Centre Racks

About STL - Sterlite Technologies Ltd

A leading optical and digital solutions company

STL is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise and Data Centre networks. The company, driven by its purpose of 'Transforming Billions of Lives by Connecting the World', designs and manufactures in 4 continents with customers in more than 100 countries. Telecom operators, cloud companies, citizen networks, and large enterprises recognize and rely on STL for advanced capabilities in Optical Connectivity, Global Services, and Digital and Technology solutions to build ubiquitous and future-ready digital networks. STL's business goals are driven by customer-centricity, R&D and sustainability. Championing sustainable manufacturing, the company has committed to achieve Net Zero emissions by 2030. With top talent from 30+ nationalities, STL has earned numerous 'Great Place to Work' awards and been voted as the 'Best Organisation for Women'.

STL has a strong global presence in India, Italy, the UK, the USA, China and Brazil.

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