DC ISP

System Catalogue

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STL Data Centre Core Inside Plant (ISP) Solutions

Structured Cabling Systems (SCS) have been adopted in data centres ever since ANSI / TIA published the TIA-942 standard about 25 years back. The architectures outlined in the standard help future-proof the cabling by allowing easy upgrades to higher speed transceivers without having to rip and/or replace existing cabling infrastructure.

Designing data centre cabling connectivity can be complicated with several design options at play – size and complexity of network architecture, network applications (Ethernet, Fibre Channel, InfiniBand), speeds and distances that need to be supported, choice of interfaces, port densities and redundant connections, preferences how networks will be managed and supported for moves, adds or changes – just to name a few.

STL, a leader in fibre optic cabling systems, approaches data centre connectivity solutions with a 3-step approach

Step 1: Identify data centre network architecture layers and stages that may need to be supported

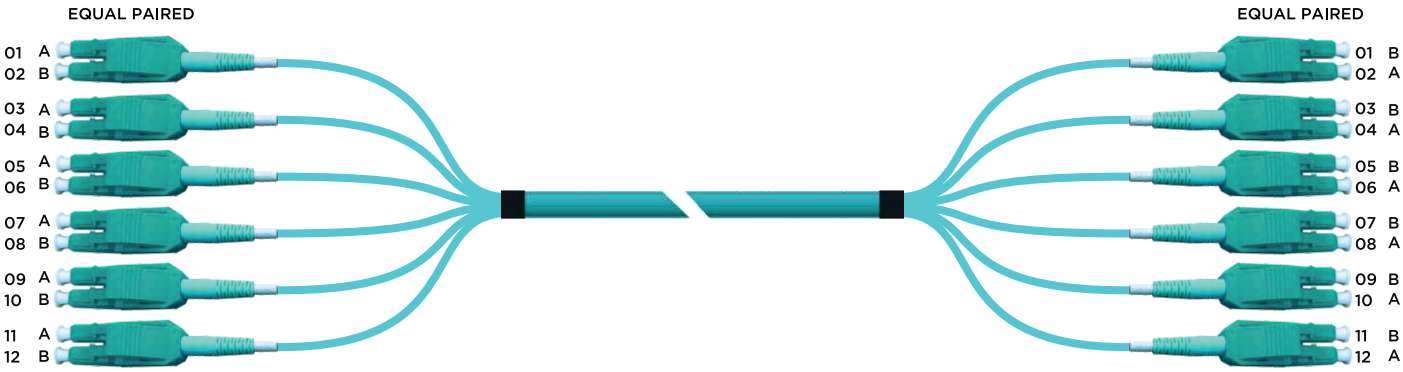
Step 2: At every layer and stage of the network, identify the network applications (Ethernet, Fibre Channel, InfiniBand), speeds, distances and port densities that need to be supported. ANSI TSB 6000 provides information regarding application support across media types recognized by ANSI TIA-568 standard. With this predetermined knowledge of network architecture, anticipated applications - now and in future, and, cabling distances that need to be supported, determine the most appropriate media and connectivity. Contact STL Engineering team for any assistance that you may need in making an informed choice or for any customization that you may need.

Step 3: Select the components – trunks and cable assemblies, panels, cassettes, adapter plates to engineer an end-to-end connectivity

STL Data Centre Core ISP solutions provide end-to-end optical fibre cabling solutions using LC and MPO connectors in Single mode, Multimode OM3 and OM4 media. Low Loss cable assembly variants can support cost-effective deployments that are not challenged by distances and speeds – mainly at the edge, while, Ultra Low-Loss cable assemblies can support high-speed applications in the core. MPO cable assemblies and cassettes support Method B polarity.

Connector Type	Optical Loss Type	SM G657. A1 IL (dB)	SM G657. A1 RL(dB)	MM OM3/OM4 IL(dB)	MM OM3/OM4 RL(dB)
		@1310/1550nm	@1310/1550nm	@850/1300nm	@850/1300nm
LC PC/UPC	Low Loss	≤ 0.25	≥ 55dB	≤ 0.25	≥ 30dB
	Ultra Low Loss	≤ 0.20	≥ 55dB	≤ 0.20	≥ 30dB
LC APC	Low Loss	≤ 0.25	≥ 60dB	NA	NA
	Ultra Low Loss	≤ 0.20	≥ 60dB	NA	NA
MPO/PC	Low Loss	NA	NA	≤ 0.30	≥ 35dB
	Ultra Low Loss	NA	NA	≤ 0.25	≥ 35dB
MPO APC	Low Loss	≤ 0.35	≥ 60dB	≤ 0.35	≥ 60dB
	Ultra Low Loss	≤ 0.30	≥ 60dB	≤ 0.30	≥ 60dB

SFF Trunk Cable Assemblies



Part Number Configurator - SFF Trunk Cable Assemblies

Product Type	Cable Type	Fibre Type	Fibre Count	Jacket Type	End Connector 1	End Connector 2	Loss Type	Length Units	Length	Special Character
U	D	9	B	L	2	2	L	M	099	000

Product Type

U	Uniboot LC Trunk

Cable Type

U	Uniboot/Round Cable 2F
D	Indoor Small Diameter Trunk Cable

Fibre Type

9	SM G657A1
3	OM3, BIMMF
4	OM4, BIMMF

Fibre Count

A	2F
B	12F

Jacket Type

L	LSZH

End Connector-1

2	LC, SM, UPC
3	LC, OM3/OM4

End Connector-2

2	LC, SM, UPC
3	LC, OM3/OM4
U	Unterminated

Loss

L	Low Loss
U	Ultra Low Loss

Length Units

F	Feet
M	Metres

Length

L	001 to 999

Special Character

000	No Customization

MPO Trunks & Array Cords

Part Number Configurator - MPO Trunk Cable Assemblies

Product Type	Cable Type	Fibre Type	Terminated Fibre Count	Jacket Type	End Connector 1	End Connector 2	Loss Type	Length Units	Length	Special Character
M	D	9	C	L	1	1	L	M	099	000

Product Type

M	MPO

Fibre Type

9	SM G657A1
3	OM3, BIMMF
4	OM4, BIMMF

Cable Type

D	Indoor Trunk Cable
S	Indoor Small dia. Cable Array Cords (8F/12F) Note: Use Unpinned MPO Connectors only

Note :
[1] Available in Base 8 configuration only
[2] Available in Base 12 configuration only

Terminated Fibre Count

A	8F[1]
B	12F[2]
C	24F
D	48F
E	72F
F	96F
G	144F

Jacket Type

L	LSZH

End Connector-1

1	8F MPO - Male - Base 8
2	8F MPO - Female - Base 8
3	12F MPO - Male - Base 12
4	12F MPO - Female - Base 12

End Connector-2

1	8F MPO - Male - Base 8
2	8F MPO - Female - Base 8
3	12F MPO - Male - Base 12
4	12F MPO - Female - Base 12
6	Uniboot Duplex LC/UPC
U	Unterminated

Special Character

000	No Customization
001	Pulling Eye
002	Staggered
003	Packaging Style

Loss Type

L	Low Loss
U	Ultra Low Loss

Length Units

F	Feet
M	Metres

Length

L	001 to 999

MPO Cassette

Part Number Configurator - MPO Cassette

Product Type	Loss Type	Fibre Type	End Connector-1 Polish Type	End Connector 1	End Connector-2 Polish Type	End Connector 2
HC	L	9	U	1	U	1

Product Type

HC	HD Cassette

Loss Type

L	Low Loss
U	Ultra Low Loss

Fibre Type

9	SM G.657A1
3	OM3, BIMMF
4	OM4, BIMMF

End Connector-1 Polish Type

U	UPC
A	APC

End Connector-1

1	1x8-MPO, pinned
2	3x8-MPO, pinned
3	1x 12 MPO, pinned
4	2x12MPO, pinned

End Connector-2 Polish Type

U	UPC
A	APC

End Connector-2

1	4 Duplex LC[1]
2	6 Duplex LC[2]
3	12 Duplex LC

Note:
[1] Only with 8F MPO
[2] Only with 12F MPO

Part Number	Description
FMR0AL01D1U	19-inch rack mountable, 1RU HD patch panel, holds 4 cassettes or adapter Plates

Ultra High Density (UHD) MPO Cassette

Part Number Configurator - MPO Cassette

Product Type	Loss Type	Fibre Type	End Connector-1 Polish Type	End Connector 1	End Connector-2 Polish Type	End Connector 2
UC	L	9	A	4	U	3

Product Type

UC	UHD Cassette

Loss Type

L	Low Loss
U	Ultra Low Loss

Fibre Type

9	SM G.657A1
3	OM3, BIMMF
4	OM4, BIMMF

End Connector-1 Polish Type

U	UPC
A	APC

End Connector-1

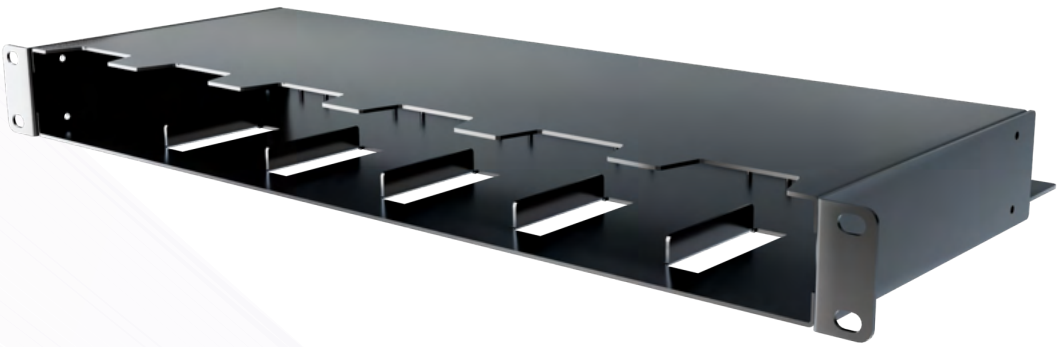
2	3x8-MPO, pinned
4	2x12MPO, pinned

End Connector-2 Polish Type

U	UPC
A	APC

End Connector-2

3	12 Duplex LC



Part Number	Description
FMR13AL01D1U	19-inch rack mountable, 1RU UHD patch panel, holds 6 cassettes

Adaptor Plates

Part Number Configurator - Adaptor Plates

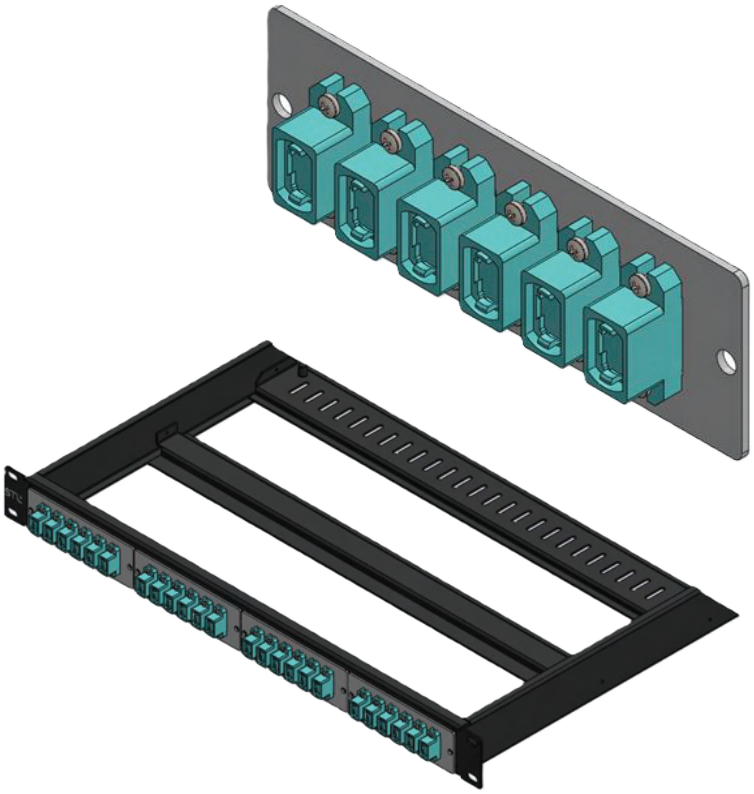
Product Type	Type
A	1

Product Type

A	HD Adapter Plate

Type

1	6-DuplexLC, MH, with internal Shutter for HD panel
2	6-Duplex LC, SM, with internal Shutter for HD Panel
3	6-Quad LC, MM with Dust cap for HD panel
4	6-Quad LC,SM with Dust cap for HD panel
5	6-MPO,MM/SM, with internal shutter for HD panel Key down/key up
6	6-MPO,MM.SM, with internal Shutter for HD panel Key up/key up



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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