

DC ISP

System Catalogue

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

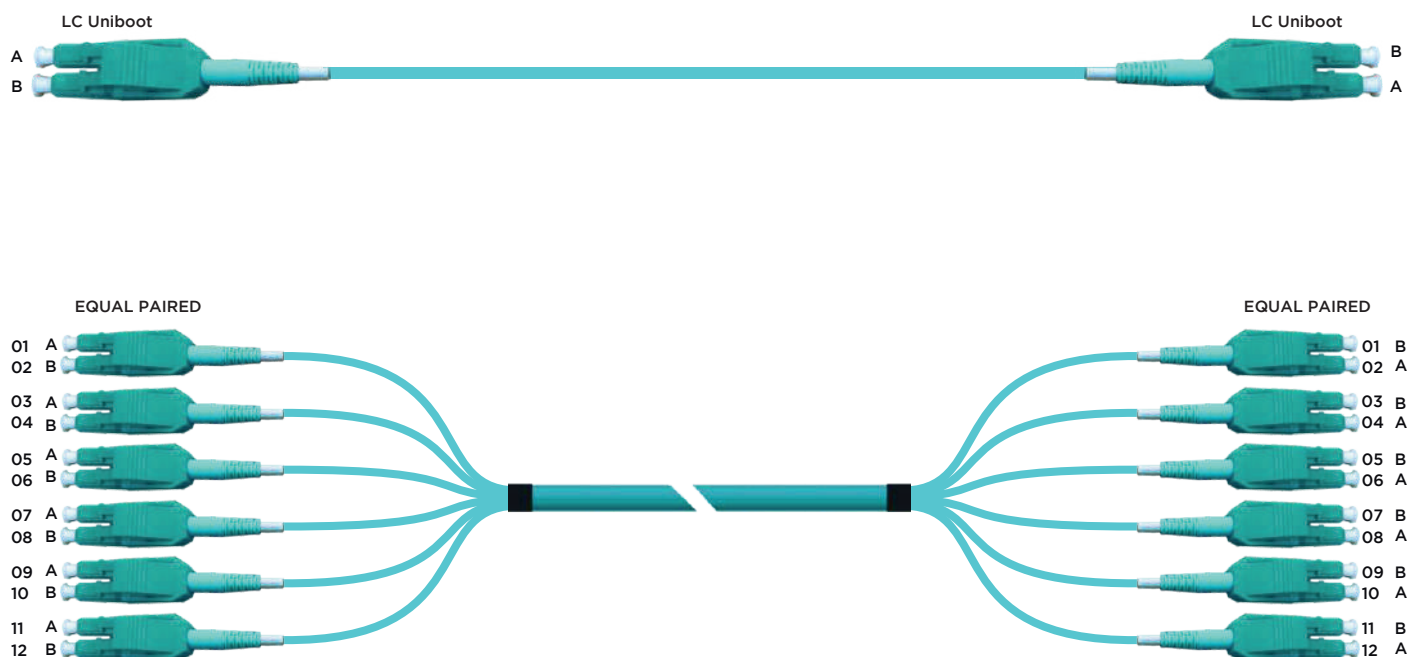
Step 2: At every layer and stage of the network, identify the network applications (Ethernet, Fibre Channel, InfiniBand), speeds, distances and port densities that need to be supported. ANSI TSB 6000 provides information regarding application support across media types recognized by ANSI TIA-568 standard. 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, OM4 and OM5 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/OM5 IL(dB)	MM OM3/OM4/OM5 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



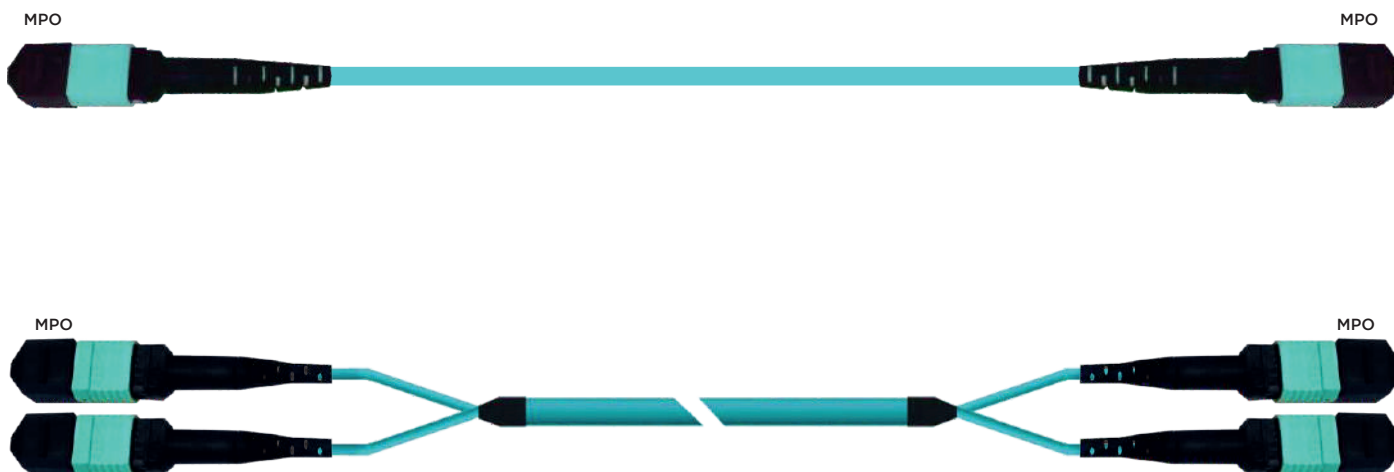
Part Number Configurator - SFF Trunk Cable Assemblies

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	Fibre Type	Fibre Count	Jacket Type	End Connector-2	Loss	Length
<div>U</div> <div>Uniboot/LC Trunk</div>	<div>9</div> <div>SM G657A1</div> <div>3</div> <div>OM3, BIMMF</div> <div>4</div> <div>OM4, BIMMF</div> <div>5</div> <div>OM5, BIMMF</div>	<div>A</div> <div>2F</div> <div>B</div> <div>12F</div>	<div>L</div> <div>LSZH</div> <div>2</div> <div>LC, SM, UPC</div> <div>3</div> <div>LC, OM3/OM4</div> <div>4</div> <div>LC, OM5</div> <div>U</div> <div>LC, OM3/OM4</div> <div>U</div> <div>LC, OM5</div> <div>U</div> <div>Unterminated</div>	<div>2</div> <div>LC, SM, UPC</div> <div>3</div> <div>LC, OM3/OM4</div> <div>4</div> <div>LC, OM5</div> <div>U</div> <div>Unterminated</div>	<div>L</div> <div>Low Loss</div> <div>U</div> <div>Ultra Low Loss</div> <div>F</div> <div>Feet</div> <div>M</div> <div>Metres</div>	<div>L</div> <div>001 to 999</div> <div>000</div> <div>No Customization</div>

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

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		Fibre Type		Terminated Fibre Count		Jacket Type		End Connector-2		Loss Type			
M	MPO	9	SM G657A1	A	8F ¹	L	LSZH	1	8F MPO - Male - Base 8	L	Low Loss		
		3	OM3, BIMMF	B	12F ²			2	8F MPO - Female - Base 8	U	Ultra Low Loss		
		4	OM4, BIMMF	C	24F			3	12F MPO - Male - Base 12	Length Units			
		5	OM5, BIMMF	D	48F			4	12F MPO - Female - Base 12	F	Feet		
Cable Type						End Connector-1				Length			
D	Indoor Trunk Cable			E	72F	1		8F MPO - Male - Base 8	6	Uniboot Duplex LC/UPC	M	Metres	
S	Indoor Small dia. Cable Array Cords (8F/12F) Note: Use Unpinned MPO Connectors only			F	96F	2		8F MPO - Female - Base 8	4	12F MPO - Female - Base 12	Special Character		
				G	144F	3		12F MPO - Male - Base 12	U	Unterminated	000		No Customization
						4		12F MPO - Female - Base 12			001		Pulling Eye
											002		Staggered
											003		Packaging Style

Note :

¹ Available in Base 8 configuration only

² Available in Base 12 configuration only

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

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
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Loss Type

L	Low Loss
U	Ultra Low Loss

Fibre Type

9	SM G.657A1
3	OM3, BIMMF
4	OM4, BIMMF
5	OM5, 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
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Loss Type

L	Low Loss
U	Ultra Low Loss

Fibre Type

9	SM G.657A1
3	OM3, BIMMF
4	OM4, BIMMF
5	OM5, BIMMF

End Connector-1 Polish Type

U	UPC
A	APC

End Connector-1

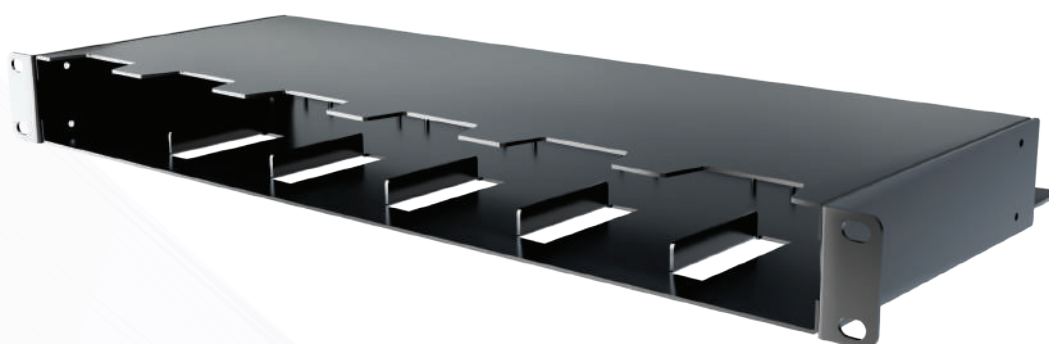
2	3x8-MPO, pinned
4	2x12MPO, pinned

End Connector-2 Polish Type

U	UPC
A	APC

End Connector-2

3	12 Duplex LC
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Part Number	Description
FMR13AL01D1U	19-inch rack mountable, 1RU UHD patch panel, holds 6 cassettes

Adaptor Plates

Part Number Configurator - Adaptor Plates

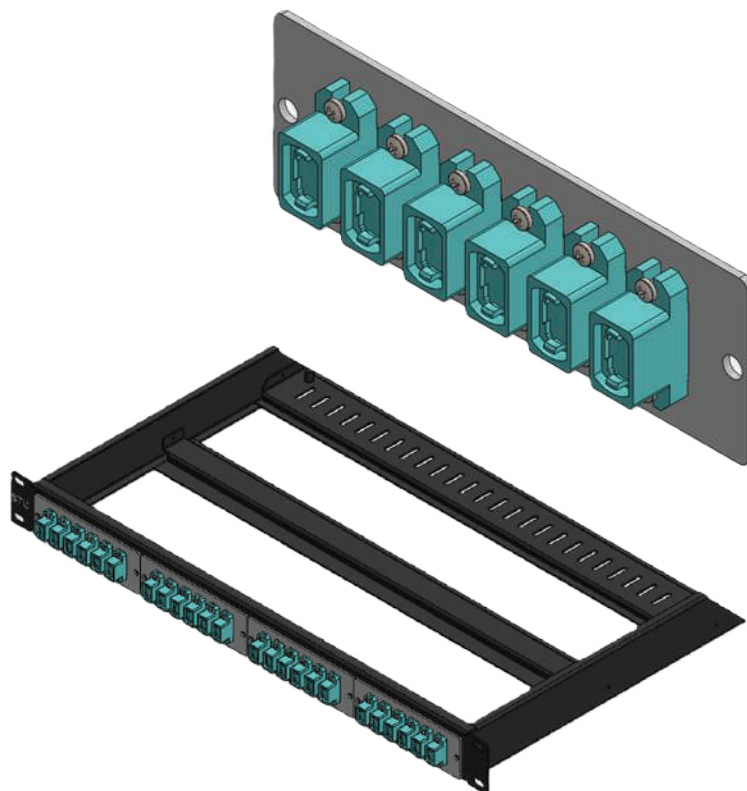
Product Type	Type
A	1

Product Type

A	HD Adapter Plate
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Type

1	6-Duplex LC, MM, 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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