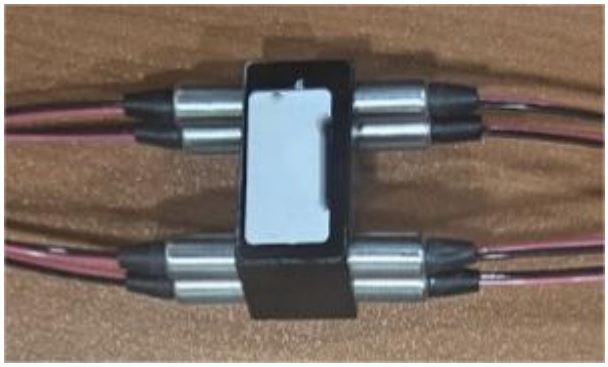
4-D2x2B Mechanical Optical Switch Spec

Customer PN	Product PN	Description
Type1	SW-49085011SL5-01	4-D2x2B, 850nm, 5V, Latching, MM 50/125 OM4, 900um, length 0.32m, MTP/UPC(Male & Female) connector
Type2	SW-49085011SL5-02	4-D2x2B, 850nm, 5V, Latching, MM 50/125 OM4, 900um, length 0.18m, MTP/UPC(Male & Female) connector
Type3	SW-49085011SL5-03	4-D2x2B, 850nm, 5V, Latching, MM 50/125 OM4, 900um, length 0.16m, MTP/UPC(Male & Female) connector

Features

·Low Insertion Loss
·Wide Wavelength Range
·Low Crosstalk
·High Stability, High Reliability
·Epoxy-free on Optical Path
·Latching and Non-latching



Applications

·Metropolitan Area Network
·R&D in Laboratory
·System Monitoring
·Configurable OADM

Specifications

Parameters	Unit	OSW-(4-D2×2B)
Wavelength Range	nm	850±40
Test Wavelength	nm	850
Insertion Loss [1, 2]	dB	≤1.5
TDL	dB	≤ 0.25
PDL	dB	≤ 0.05
Return Loss	dB	≥35
Crosstalk	dB	≥35
WDL	dB	≤0.25
Repeatability	dB	≤±0.02
Switch Time	ms	<10
Lifetime	Cycles	≥10 Billions
Power supply	V	5.0
Transmission Power	mW	≤ 500
Operating Temperature	℃	-5 ~ +85
Storage Temperature	℃	-45~ +85
Fiber type		MM OM4 50/125
Fiber length	m	Type1: 0.32+/-0.03 Type2: 0.18+/-0.03 Type3: 0.16+/-0.03
Cable Type		900um loose tube (LSZH)
Protection tube		Hytrel (1 /1'=Black,2 /2'=Red,3/3'=Blue,4/4'=white)
Connector Type		12F MTP/UPC(Male & Female)
Dimension	mm	(L)27×(W)13.5×(H)14±0.2

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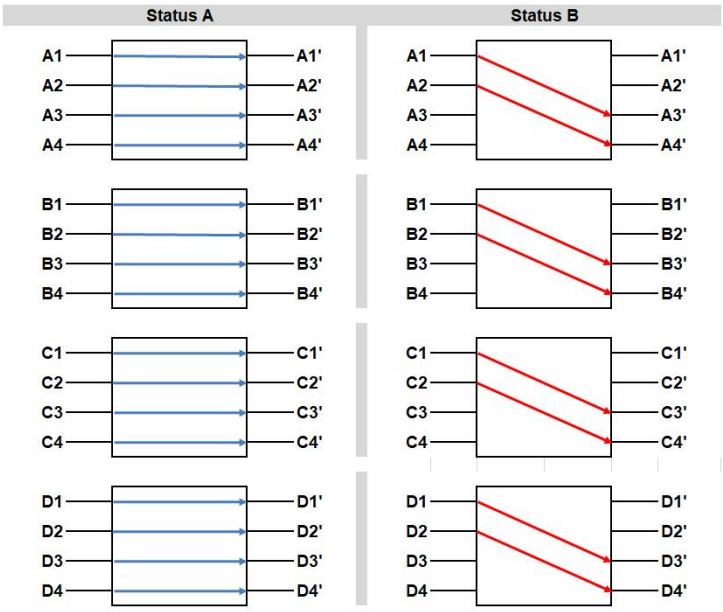
4-D2x2B Mechanical Optical Switch Spec

Note:

1.Test at room temperature and SOP.

2.Including connectors.

Route States



Status A

MTP-1	Tx1	12	<-->	1 Rx1	QSFP-1
MTP-1	Tx2	11	<-->	2 Rx2	QSFP-1
MTP-1	Tx3	10	<-->	3 Rx3	QSFP-1
MTP-1	Tx4	9	<-->	4 Rx4	QSFP-1
MTP-1	Rx4	4	<-->	9 Tx4	QSFP-1
MTP-1	Rx3	3	<-->	10 Tx3	QSFP-1
MTP-1	Rx2	2	<-->	11 Tx2	QSFP-1
MTP-1	Rx1	1	<-->	12 Tx1	QSFP-1

Status B

MTP-1	Tx1	12	<-->	1 Rx1	MTP-2
MTP-1	Tx2	11	<-->	2 Rx2	MTP-2
MTP-1	Tx3	10	<-->	3 Rx3	MTP-2
MTP-1	Tx4	9	<-->	4 Rx4	MTP-2
MTP-1	Rx4	4	<-->	9 Tx4	MTP-2
MTP-1	Rx3	3	<-->	10 Tx3	MTP-2
MTP-1	Rx2	2	<-->	11 Tx2	MTP-2
MTP-1	Rx1	1	<-->	12 Tx1	MTP-2

QSFP-2	Tx1	12	<-->	1 Rx1	MTP-2
QSFP-2	Tx2	11	<-->	2 Rx2	MTP-2
QSFP-2	Tx3	10	<-->	3 Rx3	MTP-2
QSFP-2	Tx4	9	<-->	4 Rx4	MTP-2
QSFP-2	Rx4	4	<-->	9 Tx4	MTP-2
QSFP-2	Rx3	3	<-->	10 Tx3	MTP-2
QSFP-2	Rx2	2	<-->	11 Tx2	MTP-2
QSFP-2	Rx1	1	<-->	12 Tx1	MTP-2

Pins

Optical Path	Electrical Drive		Sensor Status
4-D2×2B	Pin1	Pin 4	Pin 2—3

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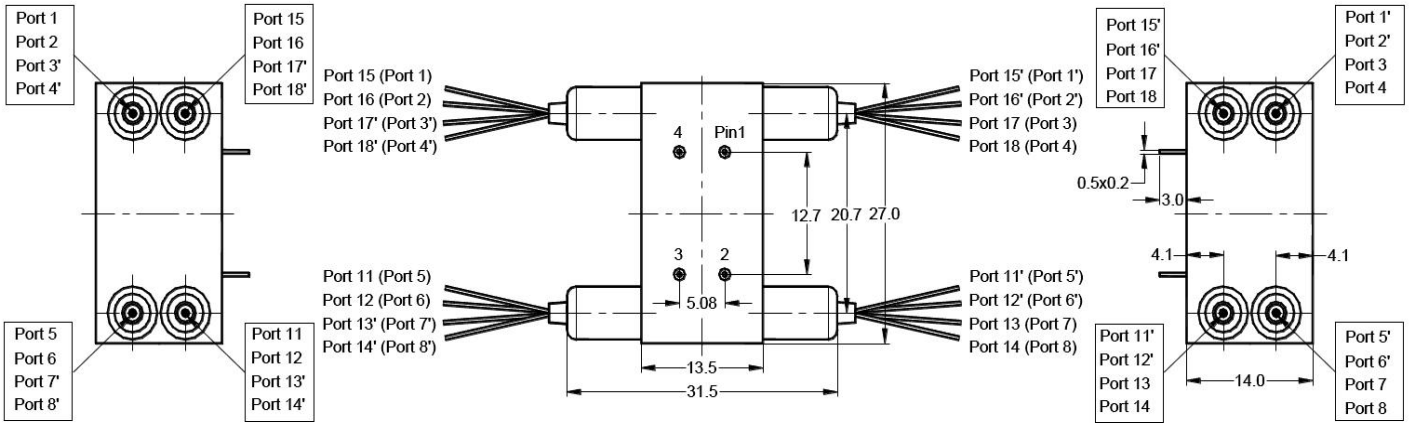
4-D2x2B Mechanical Optical Switch Spec

Latching	A1-A3',A2-A4',B1-B3',B2-B4', C1-C3',C2-C4',D1-D3',D2-D4',	V+	GND	OPEN
	A1-A1',A2-A2',A3-A3',A4-A4', B1-B1',B2-B2',B3-B3',B4-B4', C1-C1',C2-C2',C3-C3',C4-C4', D1-D1',D2-D2',D3-D3',D4-D4'	GND	V+	CLOSE

Imension



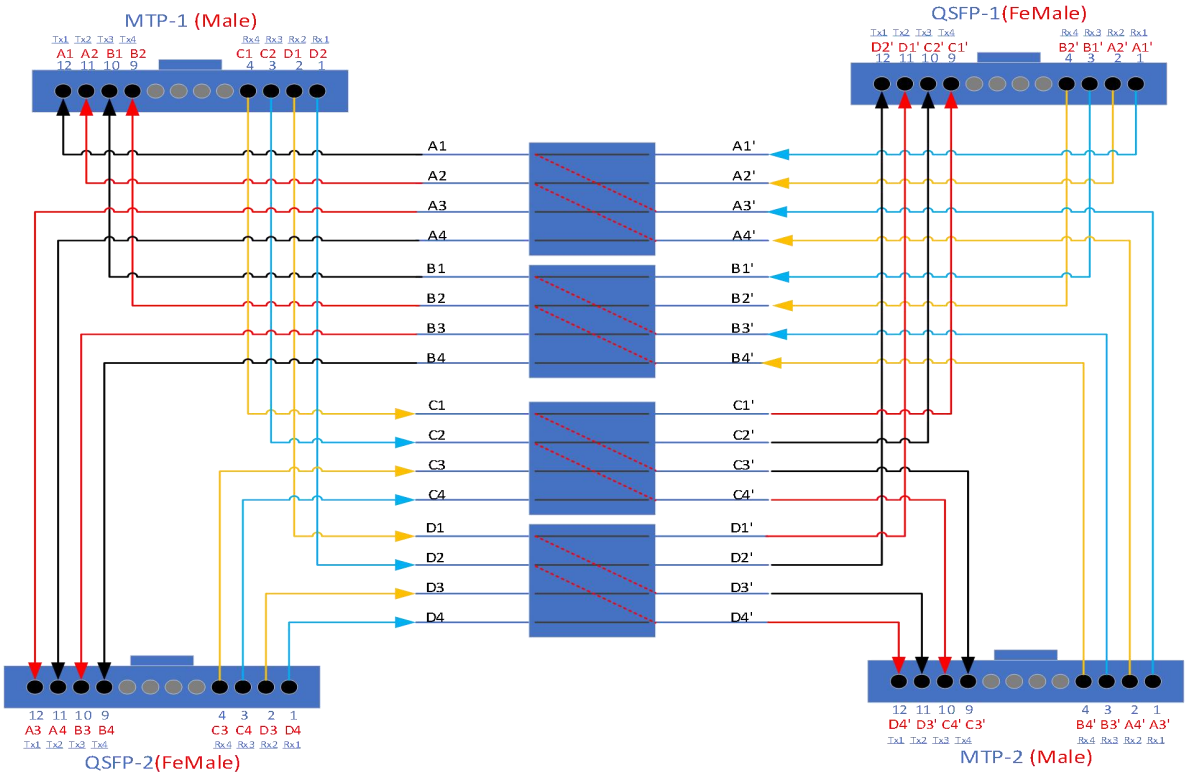
Fiber or Loose tube colors:

[1]. Port 1, Port 1', Port 11, Port 11', Port 5, Port 5', Port 15 and Port 15' are Black.

[2]. Port 2, Port 2', Port 12, Port 12', Port 6, Port 6', Port 16 and Port 16' are Red.

[3]. Port 3, Port 3', Port 13, Port 13', Port 7, Port 7', Port 17 and Port 17' are Blue.

[4]. Port 4, Port 4', Port 14, Port 14', Port 8, Port 8', Port 18 and Port 18' are white.



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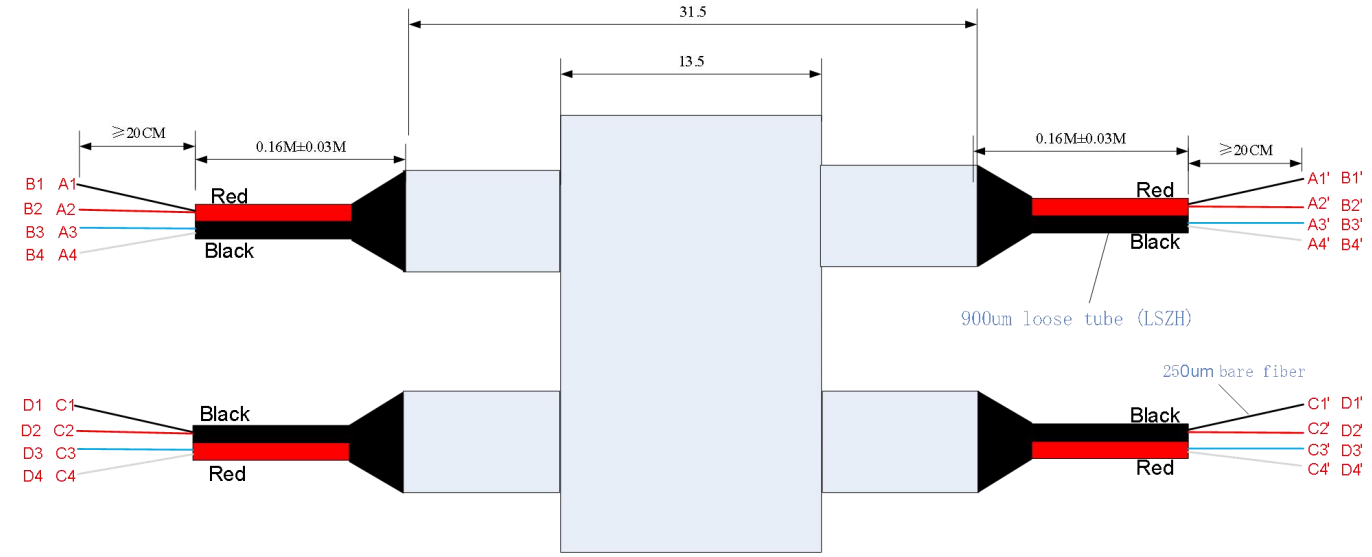
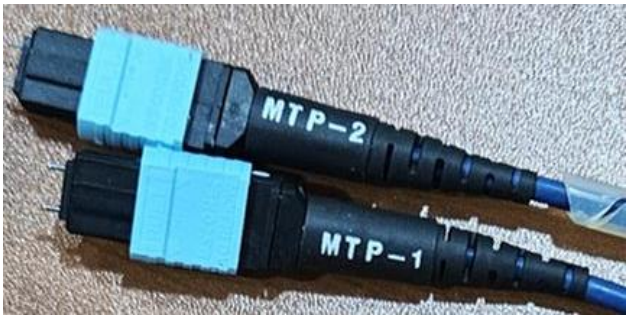
4-D2x2B Mechanical Optical Switch Spec





MTP-1,2 LABELING



QSFP-1,2 LABELING

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4-D2x2B Mechanical Optical Switch Spec





Fiber optic cable outer jacket: length is 55mm±5mm

Revision History

Revision	Notes	Authors	Checked	Approval	Date
Rev A0	New release	Virgil			2025-7-8
Rev A1	Update the insertion loss & Pin spacing	Virgil			2025-7-10
Rev A2	Update fiber length	Virgil			2025-10-7
Rev A3	Update the Dimension	Virgil			2025-11-4
Rev A4	Update the Dimension	Virgil			2025-11-11
Rev A5	Add New PN	Virgil			2026-2-6
Rev A6	Update the length and package size	Liusj			2026-2-9