



100G LR4 DUAL PORT PASSIVE OPTICAL BYPASS MODULE (LC TYPE)

Product Description

Lightwave Link Inc. 100G Passive Optical Bypass Module LC type with R15 Corning® ClearCurve® XB or equivalent Optical Fiber is designed for use in QSFP56 Small Form-factor of fiber-optic Transceiver applications. Design is based on worldwide telecommunications, data communication, system monitoring and component testing requirements. The Module is controlled by a set of electrical connections. Electrical feedback will be provided by the Module indicating which state the optical switch is in. The optical switch module must be actuated to select or change between two states. As a result, it consumes low electric energy to operate the optical switch module. Lightwave Link Inc. 100G LR4 SM optical switch module fully complies with RoHS Directive 2011/65/EU.

Features

- Smallest Size
- Low Insertion-Loss
- Module Mountable
- Available in Single Mode LC type
- RoHS Compliance

Applications

- Optical network protection and restoration
- Optical network monitoring
- Reconfigurable add/drop multiplexers
- Transmission equipment protection
- Research and development

Performance Specification

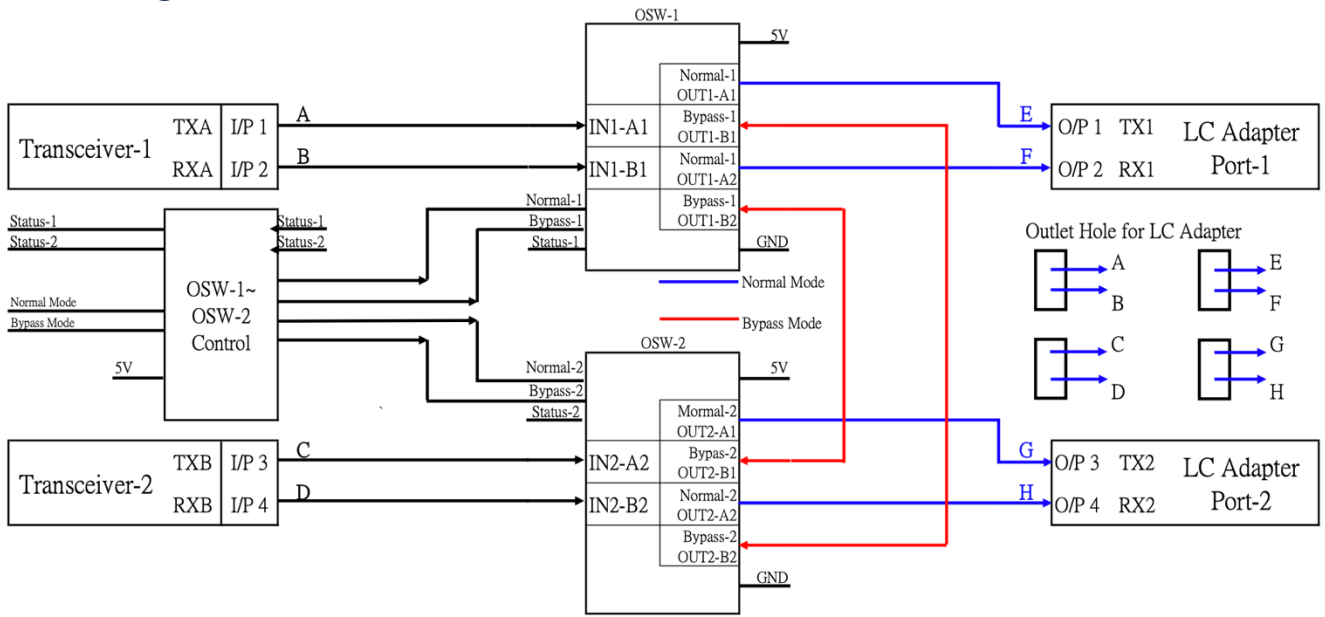
Parameter	9µm Core Single Mode			Unit
	Min.	Typ.	Max.	
Wavelength Range ¹	1260~1630			nm
Normal Mode Insertion Loss ²	2.5		3.5	dB
Bypass Mode Insertion Loss ²	3.0		4.5	dB
Return Loss	-50		-55	dB
PDL			0.3	dB
WDL			0.3	dB
Crosstalk		-80		dB
Repeatability			±0.1	dB
Switching Time ³			10.0	ms
Absolute Optical Input Power			500	mW
Operating Voltage (Latch type Relay)	4.5	5.0	5.5	VDC
Operation Current(Latch type Relay)			200	mA
Power Consumption(Latch type Relay)			1.1	W
Switching Life Expectancy	3x10 ⁷			Cycles
Operation Temperature-Normal	-5		70	°C
Operation Temperature-Special ⁴	-40		85	°C
Storage Temperature	-40		85	°C
Operation Humidity	5		95	%RH
Storage Humidity	5		95	%RH
Dimension (L*W*H)	93.75 x 60.0 x 18.0			mm
Weight 5	100			g

NOTE:

1. Special wavelength would be upon request.
2. Optical parameters excluded connectors.
3. A minimum ≥ 20 ms pulse is recommended for latching type of switch.
4. Special Operating temperature would be upon request.
5. The product weight excluded optical connectors.

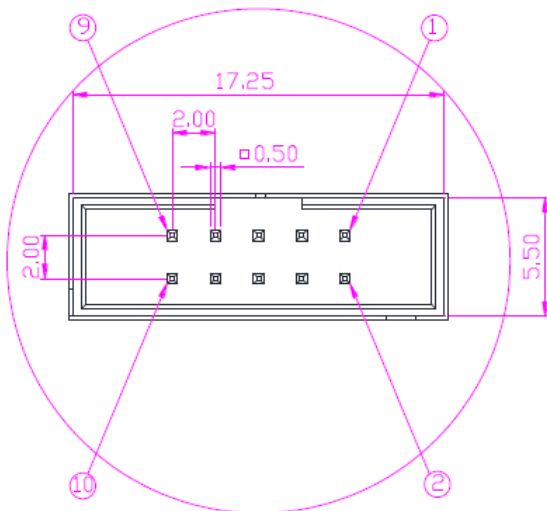
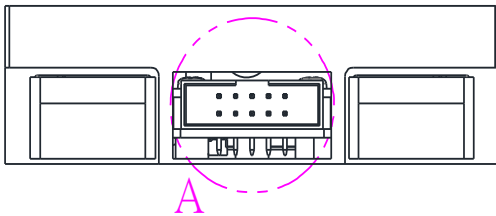


Function Diagram



Pin Assignment

- 2.00mm Pitch 2*5-Pin Male Angled Box Header : #B21D05RD100BH1-54.
- 2.00mm Pitch 2*5-Pin Female IDC Connector with Strain Relief : #625-010-230-21.



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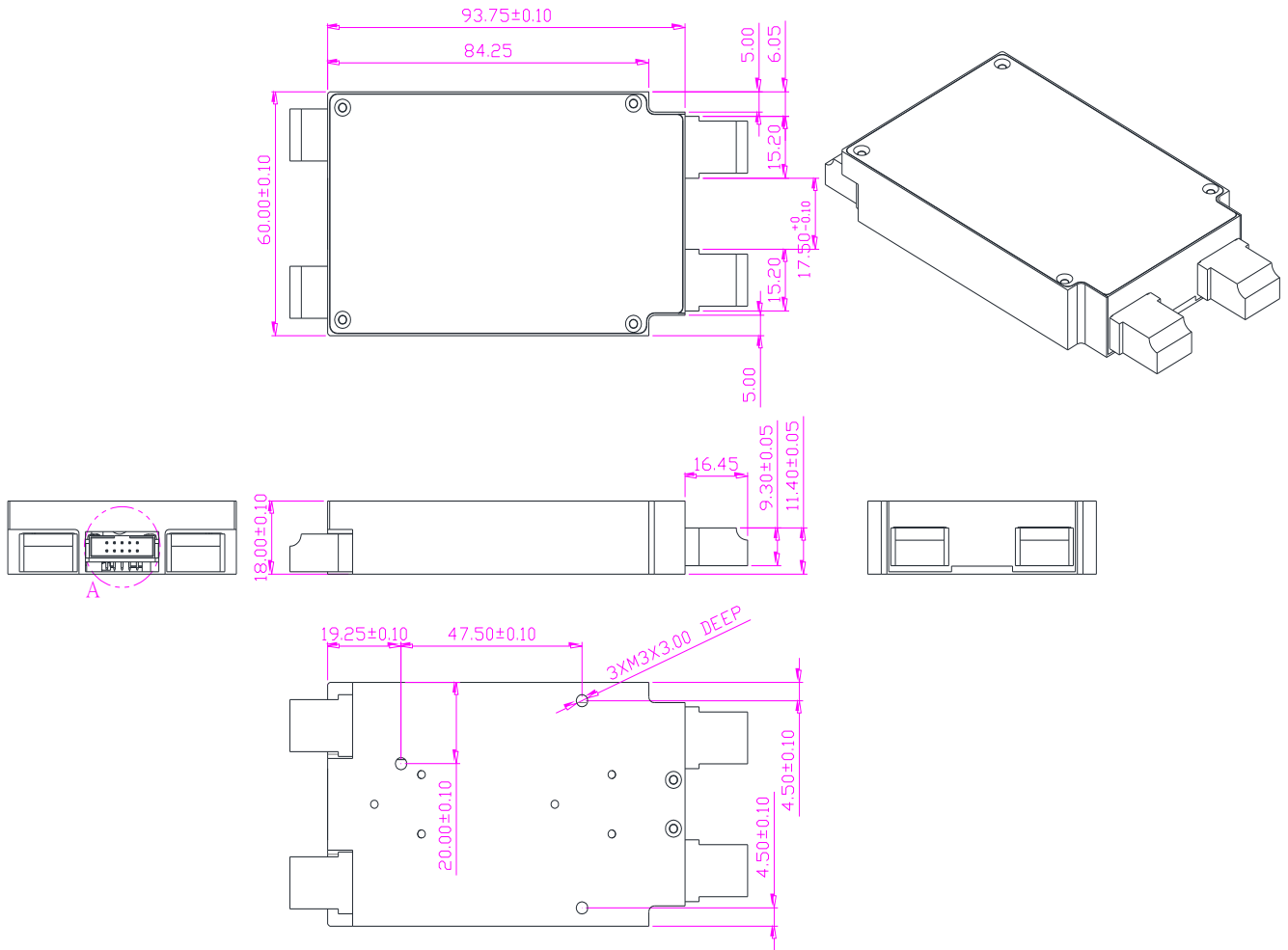


20Pin SFP Connector Pin Function Definition

Pin Number	Name	Input or Output	Function
1	5V	Input	+5V Power Supply
2	N.C.		No Connect
3	Normal Mode	Input (5V TTL)	Change to Normal Mode for OSW Module
4	Bypass Mode	Input (5V TTL)	Change to Bypass Mode for OSW Module
5	Status-1	Output (5V TTL)	Optical Switch 1 Status Monitoring Signal Output Normal Mode=Hi for Osw-1, Bypass Mode=Low for OSW-1
6	Status-2	Output (5V TTL)	Optical Switch 2 Status Monitoring Signal Output Normal Mode=Hi for OSW-2, Bypass Mode=Low for OSW-2
7	N.C.		No Connect
8	N.C.		No Connect
9	GND	Input	Power Ground
10	GND	Input	Power Ground



Physical Dimension



Ordering Information

100POBMA -	2 -	2-	X-	X-	X-	X-
Product Version	Input	Output	Operation Function	Fiber Type	Fiber Cabling	Connector Type
	No. of Input	No. of Output	L: Latching N: Non-Latching	9: 9/125μm 50: 50/125μm 62: 62.5/125μm	B: Bare fiber L: 900μm loose tube	8: LC/PC

Example: 100POBMA-2-2-L-9-L-8