


LIGHTPASS® Series Optical module

LK Mechanical Lock
105°C 100°C Operating temperature

Product name	LIGHTPASS®-EOB II 128G	LIGHTPASS®-EOS 100G	LIGHTPASS®-EOM 100G	LIGHTPASS®-SP-Q28 100G	LIGHTPASS®-EOB 100G
Feature					
	High-Speed 128Gbps & High Operating Temperature	Small size(Narrow type) & Support Autoclave (Plan)	Small size	High Operating Temperature	Ultra-Thin Mating Height
Optical Module P/N	T230035-0002	T230170-001	88001-000T-25-01	-	88002-000T-25-01
Receptacle P/N	T220250-0601	21004-060E	21001-042E-01	-	20525-260E-02
MCU (Micro Controller Unit)	With	With	Without *1	With	With
Electrical Interface	Horizontal 0.4mm pitch 30pin 2row	Vertical 0.35mm pitch 60pin	Vertical 0.35mm pitch 42pin x2	Horizontal QSFP28	Horizontal 0.4mm pitch 60pin
Mated size(W,D,H) [mm]	18.6 x 36.3 x 3.8	8.4 x 34.8 x 4.6	14.0 x 12.0 x 8.6	18.35 x 89.4 x 8.5	29.01 x 29.75 x 2.3
Channel Capacity	128Gbps 32Gbps x 4ch	100Gbps 25Gbps x 4ch	100Gbps 25Gbps x 4ch	112Gbps 28Gbps x 4ch	100Gbps 25Gbps x 4ch
Operating Case/Temp. (Tc[°C])	-40~85(105)	-40~85	-40~85	-40~85(100)	-40~85
Power Consumption [W]	Nom 4.0	Nom 3.0	Nom 3.0	Nom 4.0	Nom 4.0
Power Sources	Single source 3,3V	Single source 3,3V	5 sources (3.3V + 4 types 0.9V)	Single source 3,3V	3 sources (3.3V + 2 types 0.9V,1.0V)
Wavelength	1,310nm				
Applicable Fiber	MMF 50/125µm				
Status	Samples available	Samples available	Samples available	Samples available	Samples available

*1 MCU functionally to control the I/O core is required on the customer's board

LIGHTPASS® Series Product Overview

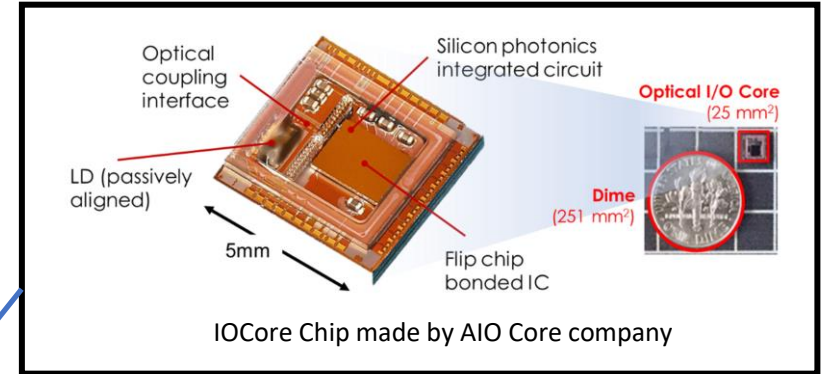
The LIGHTPASS® series from I-PEX is a multi-mode active optical module with a silicon photonics IC "IOCore™" which was developed by AIO Core Co., Ltd. that can operate stably in high temperature environments. These products enable bi-directional optical communication for the purpose of photoelectric conversion of internal high-speed signals in large data equipment and telecommunication equipment.

<IOCore Chip Overview from AIO Core Co.,Ltd>

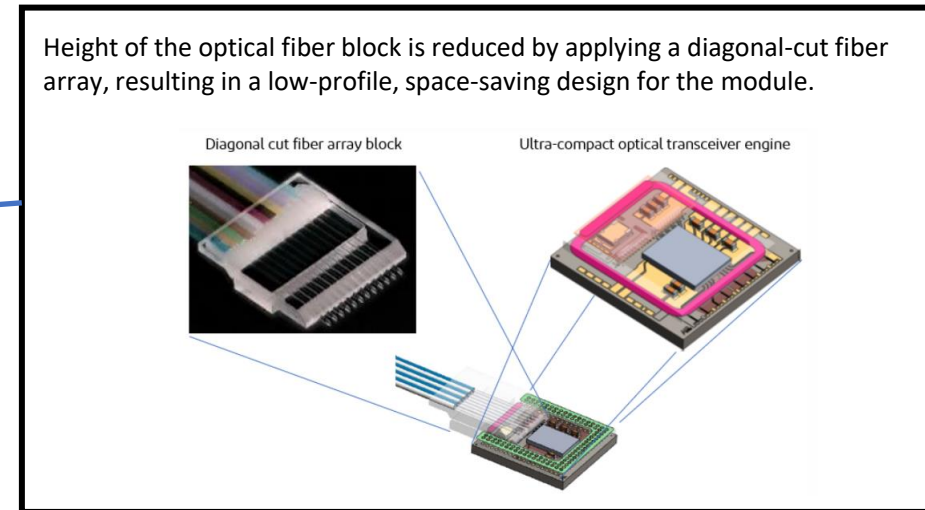
- The optical I/O core consists of a Laser Diode(LD), a driver for an optical modulator, a PD(Photo Detector)/TIA/receive amplifier, and so on, all integrated into a 5mm sq chip. All in one optical transceiver chip.
- Optical transceiver chip uses "silicon photonics technology" to form optical elements on a silicon substrate.
- The light source is a quantum dot laser (QD-LD) that can maintain high power even in high temperature operation.

<LIGHTPASS® Series Feature>

- 4 channels each for transmitting/receiving
- Channel Capacity
 - EOB II · · · 128Gbps (NRZ 32G × 4 c h)
 - EOS, EOM, SP Q28 · · · 100Gbps (NRZ 25G × 4 c h)
- MMF Wavelength 1,310nm
- Designed for heat dissipation
 - EOB II, SP Q28 · · · Operating Case/Temperature -40~85°C (105°C)



LIGHTPASS®-EOB II 128G



Appendix : I-PEX Product Series

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MHF[®] Series

RF connectors

Matrix



ISH[®] and IARPB[®] Series

Discrete wire connectors

Matrix



AP Series

Power connectors/
terminals

Matrix



CABLINER[®] Series

Micro-coaxial connectors

Matrix



NOVASTACK[®] Series

Board-to-board connectors

Matrix



MINIDOCK[™] Series

I/O connectors



DUALINE[®] Series

Twinax connectors



EVAFLEX[®] Series MINIFLEX[®] Series

FPC/FFC connectors

Matrix



LIGHTPASS[®] Series

Optical Modules



Please [contact us](#) for custom connectors.



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