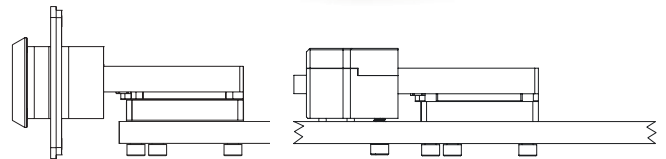


The most rugged high-performance embedded parallel optics.



The *LightVISION* VM is also available in a "midboard" version



Real size for *LightVISION* VM bulkhead and *LightVISION* VM midboard versions.

## **LightVISION VM with MPO interface** **up to 150G**

The *LightVISION*® VM is a screw-in, robust, industrial, and RoHS optical module with MPO interface. This approach combines a standard MPO cable connection with a robust, board mounted optical engine providing small size (footprint), face-plate or line-card mounting, and convenient optical cabling.

In addition, the MPO connector is covered with an outside cover boot addressing the issue of water and dust contamination.

The *LightVISION* VM acts like a QSFP+ but offers reduced dimensions and power consumption, industrial temperature range, multiple board mounting options, and board-mount and edge-mount capability. This optical module will outclass QSFP+ on multiple front and it is backed by Reflex Photonics proven reliability and rugged design.

### **Key advantages**

- **Flexible:** height adjustable with LGA interposer
- **Rugged:** RoHS electrical interface
- **Performance:** up to 12.5 Gbps/channel
- **Standards:** MPO/MTP® cable connection
- **Robust:** Screw-in board-mounted optical module with reduced footprint
- **Low power consumption:** 100 mW per channel

### **Configurations**

- 4TRX (50G, full duplex)
- 12TX or 12RX (150G)
- 12TRX (150G, full duplex), in development

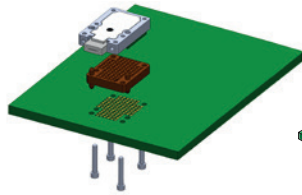
### **Applications**

- Smart car, high-resolution cameras
- LIDAR connection to embedded computer
- Smart city, surveillance cameras
- Industry 4.0 and machine vision

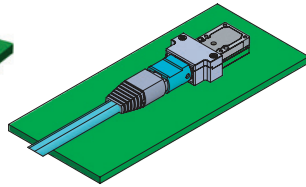
## LightVISION VM features

The *LightVISION*® VM module is offered with bandwidth from 25G (2 TX or 2 RX lane) to 150G (12 TX or 12 RX lane). All modules operate at up to 12.5 Gbps per lane with a BER as low as  $10^{-12}$  and a  $-9$  dBm sensitivity.

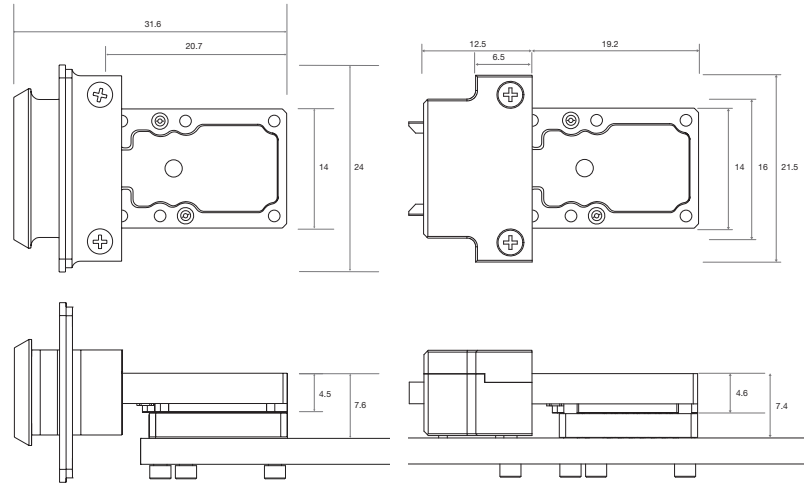
- Multimode 850 nm wavelength laser
- Over 100 m reach on OM3 ribbon fiber
- Standard MPO parallel fiber connector
- Equalizer, pre-emphasis, adjustable output
- Monitoring: LOS, RSSI, temperature, etc.
- Integrated microcontroller
- Available in industrial grade temperature range ( $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ )



*LightVISION* VM LGA interposer and board attachment.



The *LightSNAP* MPO interface is available for all Reflex Photonics products featuring an LGA interposer electrical interface.



Drawing of *LightVISION* VM. Bulkhead mount (left) and midboard (right). (measurements given in mm)

## LightVISION VM with MPO interface ordering information

Part Number	Product Description	Channels	Bandwidth (Gbps/channel)	Mounting	Optical Interface	Sensitivity (dBm)	Operating Temperature ( $^{\circ}\text{C}$ )
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### BULKHEAD VERSION

VMX04P6185321AA	LightVISION 4TRX transmit/receive	4+4	12.5	RoHS LGA	MTP/MPO	$-9$	$-40$ to $85$
VMX04P6185121AA	LightVISION 4TRX transmit/receive	4+4	12.5	RoHS LGA	MTP/MPO	$-9$	$0$ to $70$
VMT12P6185330AA	LightVISION VM 12TX transmitter	12	12.5	RoHS LGA	MTP/MPO	n.a.	$-40$ to $85$
VMT12P6185130AA	LightVISION VM 12TX transmitter	12	12.5	RoHS LGA	MTP/MPO	n.a.	$0$ to $70$
VMR12P6185301AA	LightVISION VM 12RX receiver	12	12.5	RoHS LGA	MTP/MPO	$-9$	$-40$ to $85$
VMR12P6185101AA	LightVISION VM 12RX receiver	12	12.5	RoHS LGA	MTP/MPO	$-9$	$0$ to $70$

### MIDBOARD VERSION

VMX04B6185321AA	LightVISION 4TRX transmit/receive	4+4	12.5	RoHS LGA	MTP/MPO	$-9$	$-40$ to $85$
VMX04B6185121AA	LightVISION 4TRX transmit/receive	4+4	12.5	RoHS LGA	MTP/MPO	$-9$	$0$ to $70$
VMT12B6185330AA	LightVISION VM 12TX transmitter	12	12.5	RoHS LGA	MTP/MPO	n.a.	$-40$ to $85$
VMT12B6185130AA	LightVISION VM 12TX transmitter	12	12.5	RoHS LGA	MTP/MPO	n.a.	$0$ to $70$
VMR12B6185301AA	LightVISION VM 12RX receiver	12	12.5	RoHS LGA	MTP/MPO	$-9$	$-40$ to $85$
VMR12B6185101AA	LightVISION VM 12RX receiver	12	12.5	RoHS LGA	MTP/MPO	$-9$	$0$ to $70$

### ACCESSORIES

Part Number	Product Description
500-00090	<i>LightSNAP</i> MPO cable

[www.reflexphotonics.com](http://www.reflexphotonics.com)

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Reflex Photonics is certified to ISO 9001

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