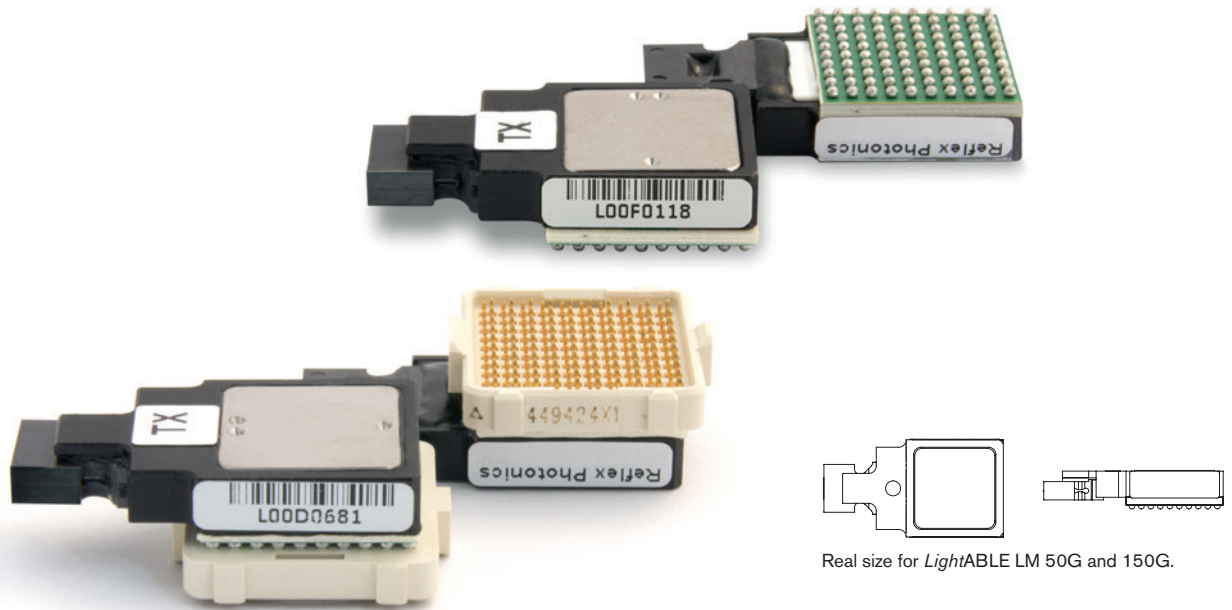


REFLEXPHOTONICS®

The most rugged high-performance embedded parallel optics.



LightABLE LM 50G and 150G

Key advantages

- **Small:** Less than 5 mm high
- **Rugged:** MIL-STD 883 shock and vibration qualified
- **Sealed:** Moisture and thermal shock resistant
- **Storage temperature:** -57°C to 125°C
- **Performance:** 12.5 Gbps/lane from -40°C to 100°C
- **BER:** As low as 10^{-15}
- **Sensitivity:** -12 dBm
- **Proven:** Thousands used in aerospace and defense applications
- **Low power consumption:** 100 mW/lane

LightABLE LM product summary

The *LightABLE*™ LM embedded optical modules are the most rugged devices offering high bandwidth (greater than 150 Gbps) in a chip-size package. Lanes are independent and support data-agnostic protocols, such as Ethernet, Fiberchannel, Infiniband and PCIe. *LightABLE* LM are used extensively in aerospace and defense for phased array radars, high resolution sensors, and high performance computers applications.

Configurations

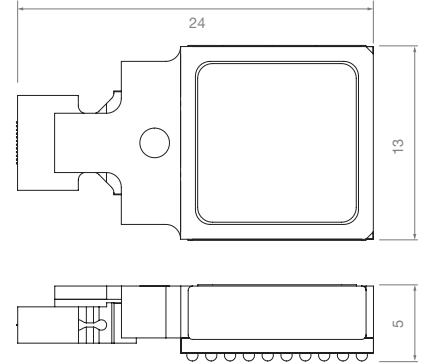
- 12 TX or 12 RX
- 4 TRX
- 12 TRX (in development)

Applications

- Phased array radar
- CCD/CMOS imaging sensor
- FPGA SerDes application

50G and 150G *Light*ABLE LM features

- 4 TX plus 4 RX lane per device (50G)
- 12 TX or 12 RX lane per device (150G)
- Multimode 850 nm wavelength laser
- Over 100 m reach on OM3 ribbon fiber
- Standard MT parallel fiber connector
- Surface mountable or pluggable
- RoHS or tin-lead
- Equalizer, pre-emphasis, adjustable output
- Monitoring: LOS, RSSI, temperature etc.
- Integrated microcontroller
- Available in commercial (0°C to 70°C) and industrial (-40°C to 100°C) grade temperature ranges



Drawing of *Light*ABLE LM 50G and 150G

*Light*ABLE LM ordering information

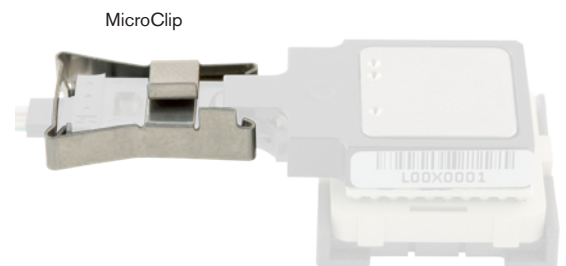
Part Number	Product Description	Lanes	Bandwidth (Gbps/lane)	Mounting	Soldering	Operating Temperature (°C)	Availability
LMX04P4183323AA	<i>Light</i> ABLE LM 4TRX transmit/receive	4+4	12.5	Pluggable	RoHS	-40 to 100	General availability
LMX04P4182323AA	<i>Light</i> ABLE LM 4TRX transmit/receive	4+4	12.5	Surface mount	Tin-lead	-40 to 100	General availability
LMT12P4183310AA	<i>Light</i> ABLE LM 12TX transmitter	12	12.5	Pluggable	RoHS	-40 to 100	General availability
LMT12P4182310AA	<i>Light</i> ABLE LM 12TX transmitter	12	12.5	Surface mount	Tin-lead	-40 to 100	General availability
LMR12P4183303AA	<i>Light</i> ABLE LM 12RX receiver	12	12.5	Pluggable	RoHS	-40 to 100	General availability
LMR12P4182303AA	<i>Light</i> ABLE LM 12RX receiver	12	12.5	Surface mount	Tin-lead	-40 to 100	General availability

MicroClip

Reflex Photonics' MicroClip™ is a small lightweight clip connecting an MT connector cable to the *Light*ABLE LM. *Light*ABLE LM (50G and 150G) have proven they can withstand a 1 kg live traffic fiber pull test (10 Gbps/lane) on a 12-fiber ribbon cable pigtail when mated to the proprietary MicroClip MT ferrule design, without any signal performance degradation.

Features

- Pull force: 1 kg (twice the Telecordia GR-468 requirements)
- Lightweight, low profile, and simple assembly



MicroClip connectors offer a secure connection between the *Light*ABLE LM module and the fiber cable.

THE *Light* on Board® Company

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Reflex Photonics is certified to ISO 9001

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