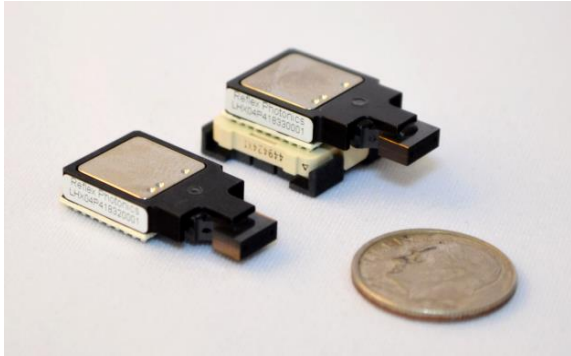


Product Brief

The Reflex Photonics 40Gbps LightABLE™ SR4 LH series Optical Transceiver Industrial and Commercial Temperature Range*

THE Light on Board® family of optical engine technology in its smallest form-factor.



The Reflex Photonics *LightABLE™* LH SR4 Optical Transceiver includes 4 transmit and 4 receive channels in a parallel fiber configuration. It supports up to 41.25 Gbps full duplex.

The *LightABLE™* LH SR4 Pluggable/Surface Mount Optical Engine is a low-profile parallel transceiver. The optical engines can be mounted directly upon a high-speed printed circuit board via surface mount technology or attached via a pluggable connector. This allows short electrical traces from the Host ASIC connect high-speed electrical data signals to the Reflex *LightABLE™* LH SR4 optical engine to be implemented.

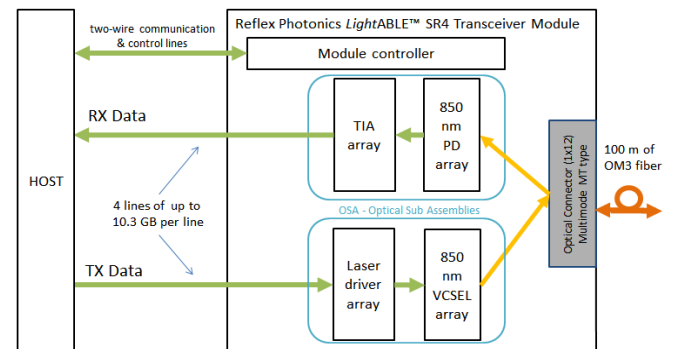
The Reflex *LightABLE™* LH SR4 optical engine's small form factor and low power consumption make it ideal for space-constrained applications.

*The *LightABLE™* LM version is recommended for new design.

** Industrial part qualified between -40 °C to 85 °C. Please communicate with Reflex for detailed information on operation over 85 °C.

Summary Specifications:

- Commercial temp. range 0 °C to +70 °C
- Industrial temp. range -40 °C to +100 °C**
- Bit Error Rate of E-12
- Sensitivity of -12 dBm
- Up to 10.3125 Gbps per channel
- 4 transmit and 4 receive channels
- Industry standard MT-terminated connector
- 850 nm wavelength
- Over 100 m reach on OM3 ribbon fiber
- 3.4 cm² footprint for surface mount
- 0.9 W power consumption
- AC coupled to the host ASIC
- CML high-speed electrical interface
- I2C communication interface
- Data protocol agnostic with balanced code
- Tin-Lead or RoHS options available



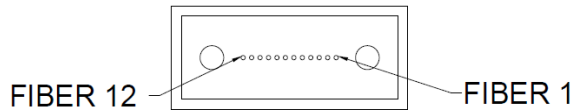
Functional Diagram of *LightABLE™* LH SR4 Transceiver

Applications:

The LH SR4 module targets applications that require very large bandwidths in confined areas and are typically co-located with high-speed, high port count FPGAs or ASICs. The modules provide robust operation and high operating temperature ranges. Typically the modules are used in:

- Phased array radar
- FPGA Serdes Interfaces
- Multi-processor interconnects
- CCD/CMOS Imaging sensor arrays
- High fidelity radar imagery

Optical Interface Lanes:

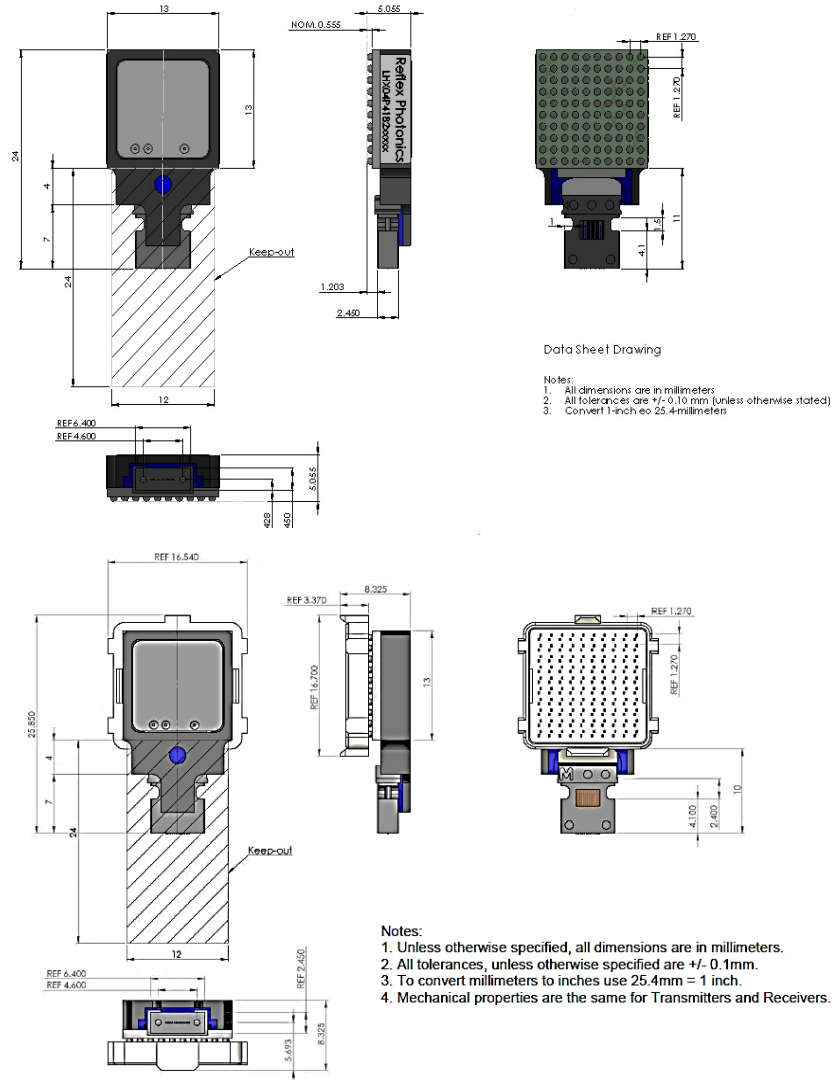


Outside view of the LightABLE™ LH SR4 Transceiver module MT receptacle

MT Fiber #	Lane Assignment	MT Fiber #	Lane Assignment
1	RX1	7	Unused
2	RX2	8	Unused
3	RX3	9	TX4
4	RX4	10	TX3
5	Unused	11	TX2
6	Unused	12	TX1

Mechanical

The Reflex **LightABLE™ LH SR4** optical engine's small form factor and low power consumption make it ideal for space-constrained applications.



- Notes:
 1. Unless otherwise specified, all dimensions are in millimeters.
 2. All tolerances, unless otherwise specified are +/- 0.1mm.
 3. To convert millimeters to inches use 25.4mm = 1 inch.
 4. Mechanical properties are the same for Transmitters and Receivers.

PRODUCT VARIANTS

LightABLE™ LH SR4 transceivers are available in several operating temperature variants

- Industrial Operating Temperature Range (-40 to +85°C) (Tcase)
- Commercial Operating Temperature Range (0 to +70°C) (Tcase)

Each temperature variant is available in mounting options of

- Surface mount: Pb / Leaded solder balls
- Pluggable: RoHS / Lead-Free MegArray® connector

1-514-842-5179 or 1-408-715-1781 or by email at sales@reflexphotonics.com