



LightABLE for Aerospace & Defense

Industrial (-40°C to 100°C) 150 Gbps embedded optical module

The *LightABLE*™ embedded optical module is a chip-size parallel transmitter/receiver featuring the lowest profile surface mount package in the industry. The *LightABLE* enables high I/O density and alleviates space and power challenges facing system designers today.

High-resolution camera



LightABLE



HPEC

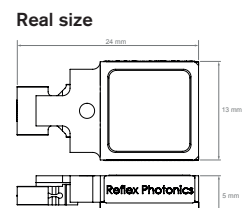


Electrical link

Optical link

Key Advantages:

- Field proven: Thousands used in aerospace, defense, telecom, datacom, medical, and industrial applications.
- Lowest profile part enables compact systems and high I/O density.
- Low power density eases cooling requirements with distributed optics.
- Designed for pick and place manufacturing, solder reflow and high pressure cleaning.
- System robustness with industrial and commercial temperature ranges
- Low power consumption: less than 100 mW/lane @ 12.5 Gbps
- Lane bandwidth: up to 12.5 Gbps (28 Gbps under development)
- Multi lane configuration: full duplex 4+4 TRX, 12 TX, 12 RX



LightABLE Typical Applications

Active electronically scanned array radars



- Data intensive high resolution radar
- Antenna array with thousands of RF transmitters/receivers
- High link budget requirements
- High performance embedded computer needed for beam forming
- Low BER for superior system performance
- Rugged environment

High-performance embedded computers



- Scalable multiprocessor architectures for ISR
- High speed interboard processing (12.5 Gbps/lane)
- Embedded optics with high optical I/O density
- Low power consumption (<100 mW per lane)
- High-density embedded optics near processor
- EMI immunity

High resolution surveillance cameras



- Advanced surveillance systems
- Gigapixels imaging unit
- Terabits/s data transfer applications
- Embedded optics for high bandwidth (12.5 Gbps/lane)
- High I/O density
- Must meet SWaP and harsh environment requirements

Embedded Optical Transceiver

Embedded parallel optical transceiver mounts onto printed circuit board via Meg-Array® plug or BGA balls.

LightABLE

- 12 TX, 12 RX or 4+4 TRX
- Up to 12.5 Gbps/lane
- Pluggable or surface mount
- Operating temp. (-40°C to 100°C)



SNAP12

- Board-edge mounting
- Up to 10.3125 Gbps bandwidth
- Operating temp. (-40°C to 95°C)



Light on Board

Light On Board™ technology provides a platform for direct optical connectivity to IC circuit packages for ultrashort reach and short reach interconnections between ICs, adjacent PCB's and adjacent chassis.

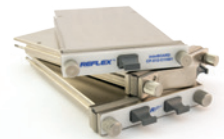


MSA Modules

MSA-compliant CFP and QSFP+ high-density transceivers for the datacom and telecom industry.

CFP

- Support 100GBASE-SR10
- Up to 11.2 Gbps bandwidth
- Single and dual 40 Gbps versions



QSFP+ (40 Gbps)

- Multimode: SR4, eSR4
- Single mode: IR4, LR4
- Parallel single mode: IR4, LR4



THE *Light* on Board® Company

www.reflexphotonics.com

Reflex Photonics Inc.

16771, Chemin Ste-Marie
Kirkland, QC
H9H 5H3, Canada

For information on Reflex Photonics products, contact:

sales@reflexphotonics.com
+1.514.842.5179 (Montreal)
+1.408.715.1781 (USA)



Reflex Photonics is certified to ISO 9001

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