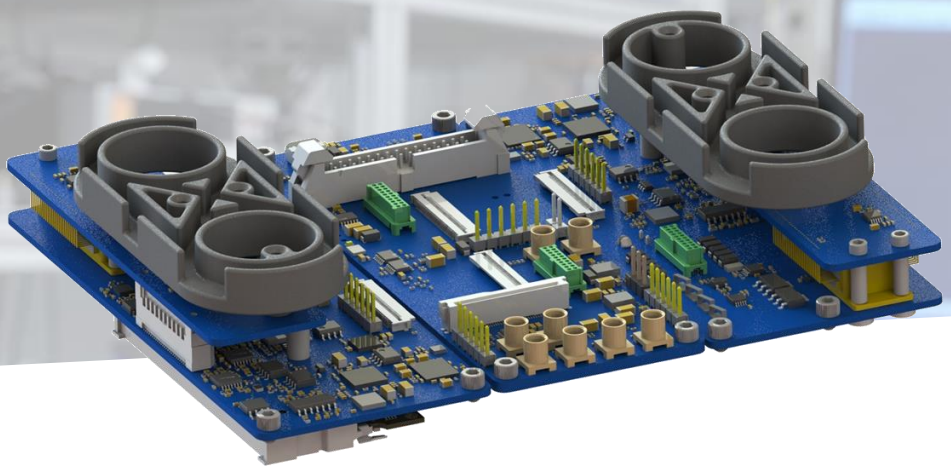
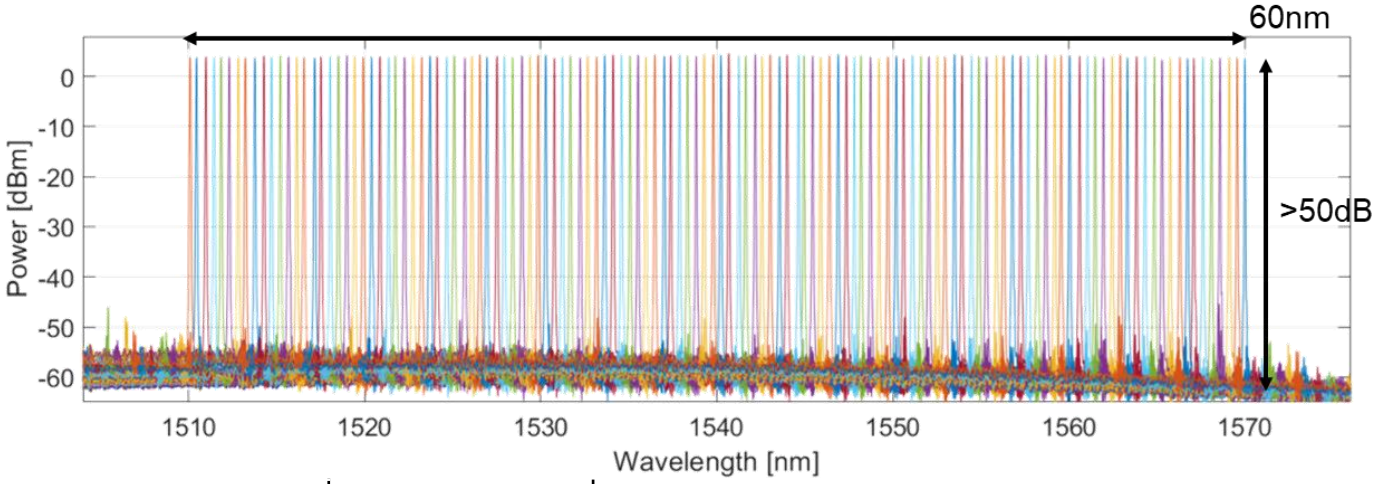
RAY-L1

Low-Power Widely-Tunable Narrow Linewidth Laser for FMCW

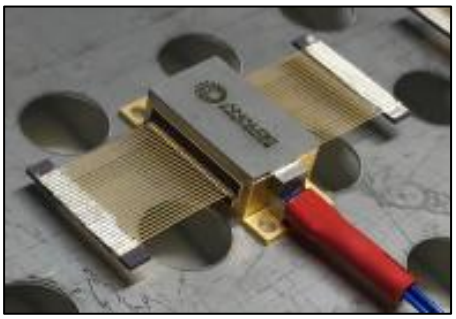


Applications & Benefits

- Wide 60 nm Tuning Range
- Linear Frequency Chirp of 1.5 GHz
- Narrow Linewidth
- Control electronics included *or* goldbox-only
- Suitable for FMCW
- Application areas include LiDAR & FSOC



Feature	Module	Goldbox Only
Wavelength	C + L-Band (2-Channel)	
Optical Output Power	> 0 dBm	
Tuning Speed	< 300 µs random access	
SMSR	> 40 dB	
Linewidth	< 40 kHz	
Chirp Excursion	≤1.5 GHz (adjustable)	
RIN	-160 dB/Hz (preliminary)	
PER	>20 dB (preliminary)	
Electrical Power	15 W	1 W
Form Factor	15 × 12 × 4 cm^3	1.5 × 3.5 × 0.7 cm^3
Mass	290 g	32 g



Internal Butterfly Package

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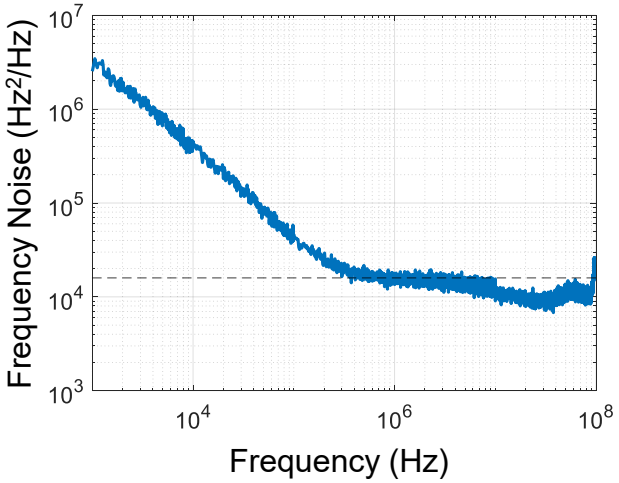
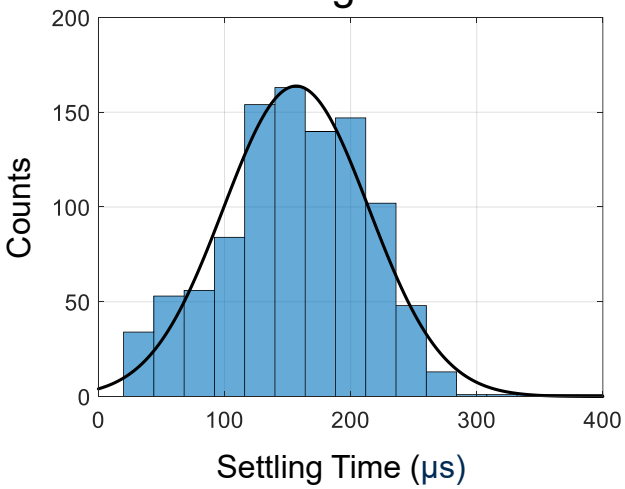
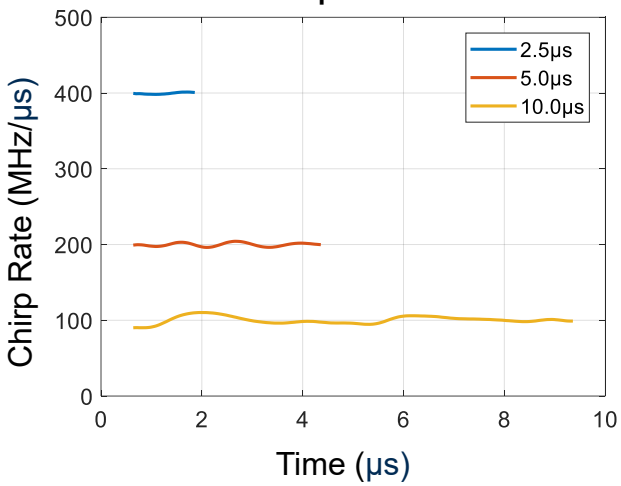
Linewidth



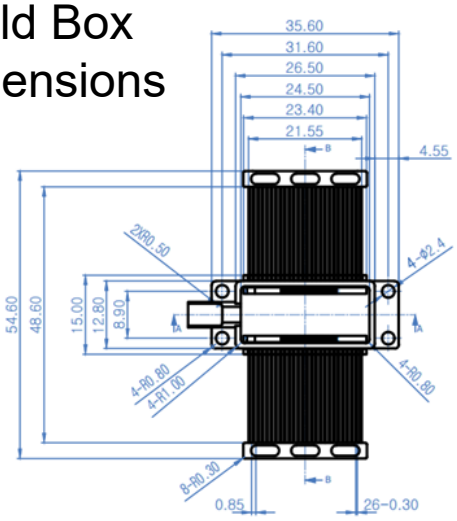
Settling Time



Chirp Rate



Gold Box Dimensions



Compact Design

The module is only 720 cm³ and < 290 g due to SiPh and CMOS integration.

Wide Tuning

The RAY-L1 module operates over a 60 nm tuning range.

Scalable

Silicon Photonics is made in 300 mm nodes; cost is low with volume.

Narrow Linewidth

The unit has a sub-40 kHz linewidth.

Availability

Immediate.

Linear Chirp

The module produces a linear chirp over 1.5 GHz excursion.

Control Electronics

Low-noise control circuits are included in the module.

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