

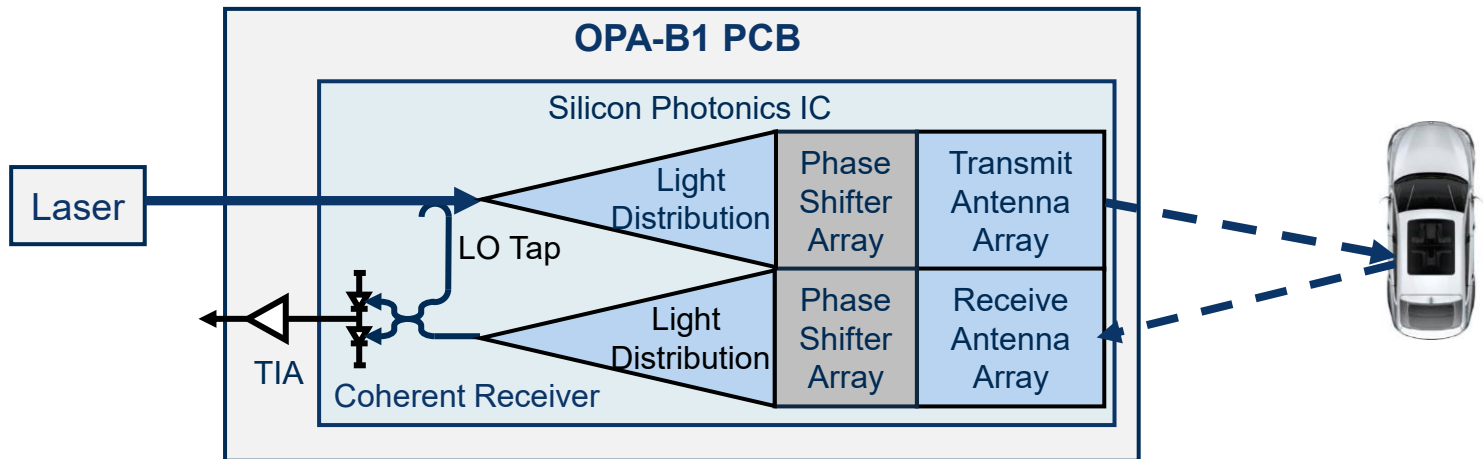
# OPA-B1

## Optical Phased Array Transmit-and-Receive Beamsteering Module

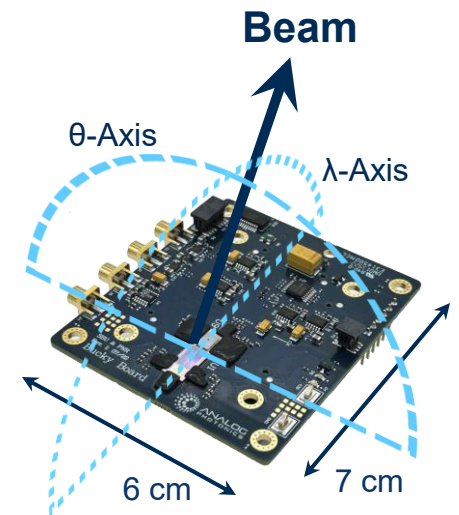


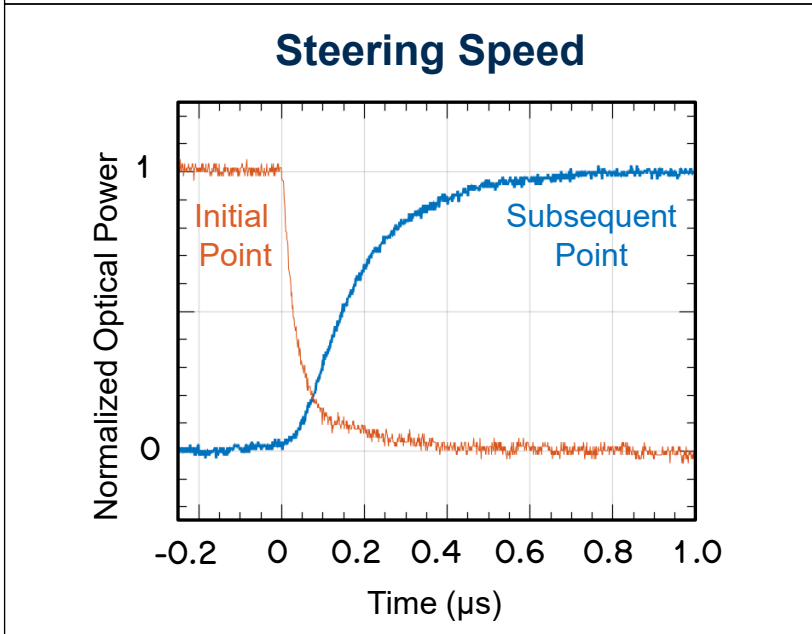
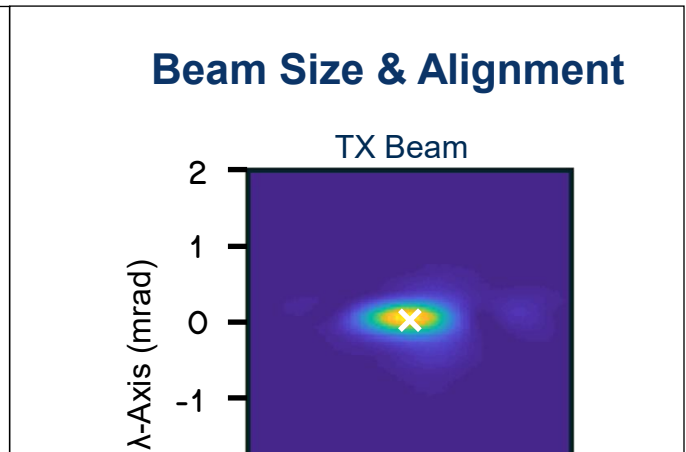
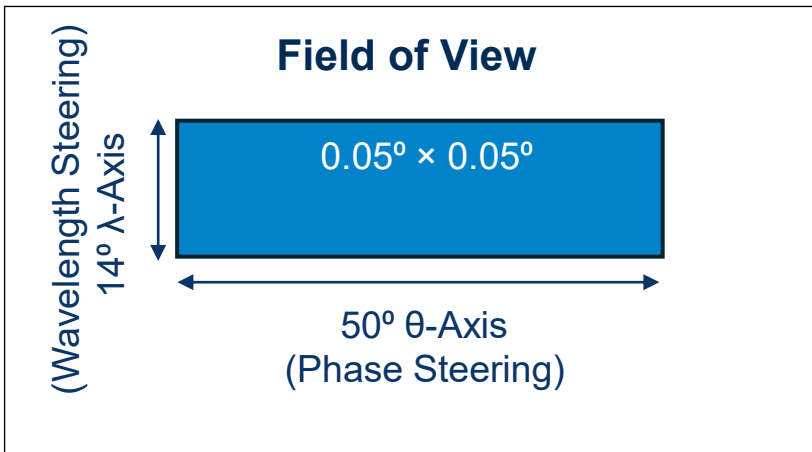
### Applications & Benefits

- Compact optical-phased-array module
- Independent transmit and receive arrays
- I-Q coherent receiver
- Fiber-coupled inputs and outputs
- Customer-provided laser for C- and/or L-band
- Application areas include LIDAR and FSOC



Feature	Specification
Wavelength	C + L-Band
Maximum Input Optical Power	400 mW
Optical Power in Beam	≤ 7.5 dB IL from fiber input
Beam Size	1 mrad × 1 mrad
Field of View (H×V)	50° × 14°
Angular Resolution (H×V)	Arbitrarily programmable
Point-to-Point Steering Time	< 10 μs random access
Electrical Power	< 5 W
Form Factor	7 cm × 6 cm × 1 cm PCB
Mass	64 g





## Compact Design

The OPA-B1 module is only 42 cm<sup>3</sup> and 68g due to SiPh and CMOS integration.



## No Lenses

All OPA-B1 optical components are integrated into the Silicon Photonics.



## Scalable

SiPh & CMOS are made in 300 mm nodes; cost is low with volume.



## No Interference

Interference such as from sunlight/other sources is naturally rejected.



## Availability

Immediate.



## Dynamic FoV

The scan pattern is chosen by the user in the field of view.



## Minimal Absorption

1.55 μm exhibits excellent atmospheric transmission.



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