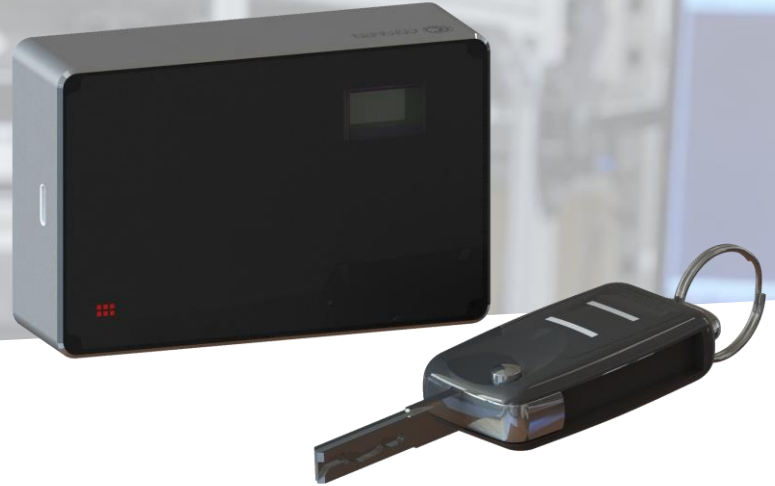


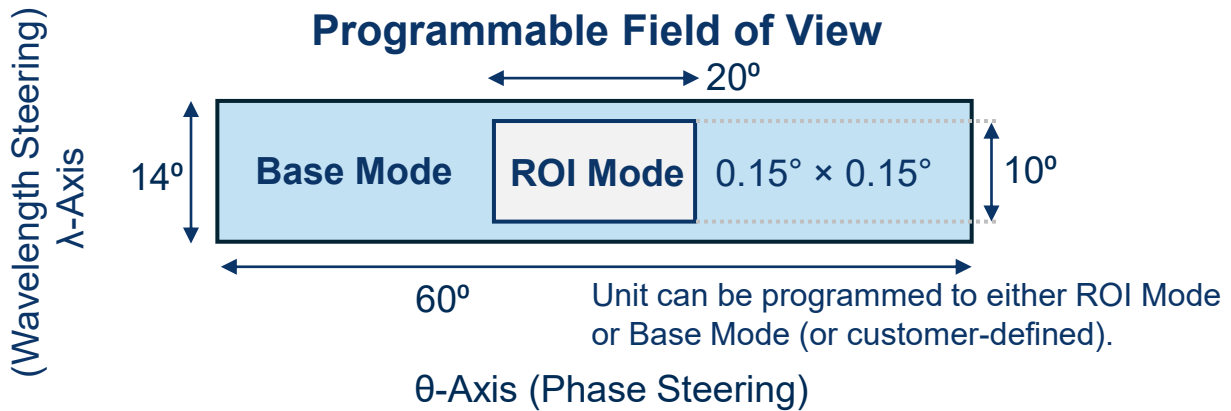
# FS-4S LiDAR

## Solid-State Coherent Optical-Phased-Array Long-Range LiDAR

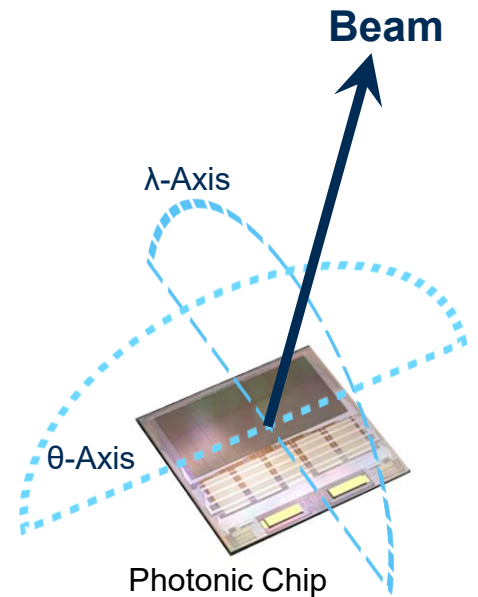


### Applications & Benefits

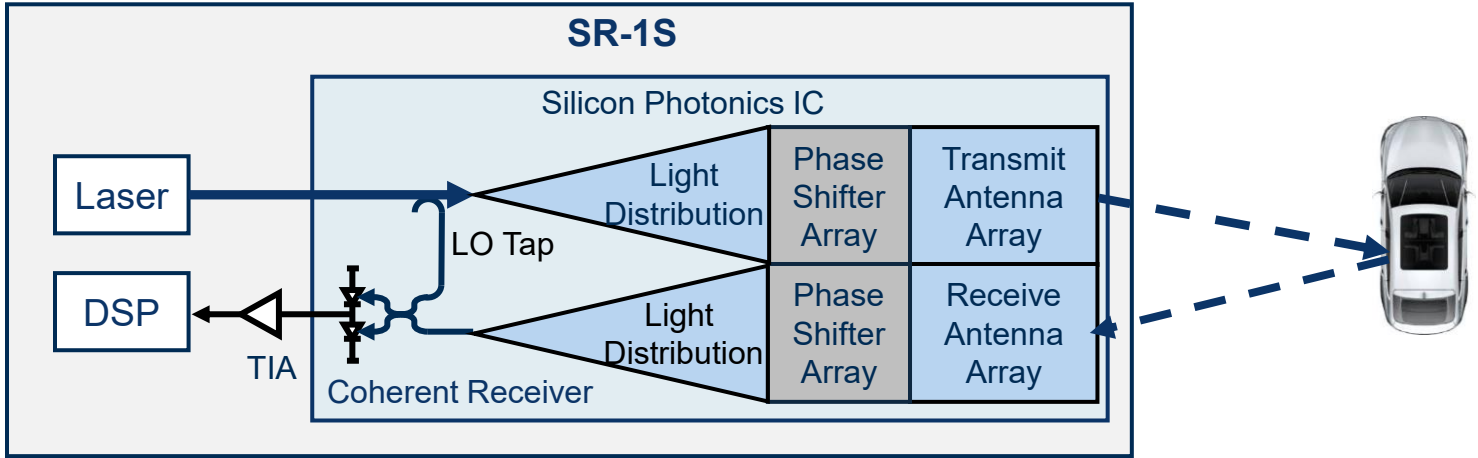
- Compact LiDAR module
- Flat form factor – no lenses
- Coherent receiver
- FMCW gives range & Doppler radial velocity
- Integrated tunable laser
- Optimized for long-range



Feature	Specification
Wavelength	C + L-Band
Range	200 m @ R10% (ROI Mode) 80 m @ R10% (Base Mode)
Eye Safety	Class 1
Beam Spot Size (H×V)	≤ 0.04° × 0.02° FWHM
Field of View (H×V)	60° × 14° (Base Mode) 20° × 10° (ROI Mode)
Angular Resolution (H×V)	0.15° × 0.15° (programmable)
Measurement Rate	400k points/sec (Base Mode) 90k points/sec (ROI Mode)
Electrical Power	35 W (< 10 W with DSP ASIC)
Form Factor	6.5 cm × 10 cm × 3 cm
Mass	< 250 g



## Block Diagram



## Integration Approaches



### Compact Design

The module is only 200 cm<sup>3</sup> and < 250 g due to SiPh and CMOS integration.



### No Lenses

All LiDAR optical components are integrated into the Silicon Photonics.



### Scalable

SiPh & CMOS are made in 300 mm nodes; with integrated III/V.



### No Interference

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



### Availability

Q4 2025.



### Dynamic FoV

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



### Minimal Absorption

1.55 μm exhibits excellent atmospheric transmission.

