LOW LIGHT DETECTION FOR LIDAR

EPIC online technology meeting on low-light cameras technology and applications

October 25th 2021

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Document class: Public

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LIDAR USE-CASE LEVEL 3 AND HIGHER

- Challenging use-case is the empty road
- Small obstacles like tires on the road must be avoided
- Detection of small low reflective objects requires
  - Sensitive detectors
  - High resolution

POSSIBLE LIDAR SOLUTIONS

Higher Peak Power

What does that need

- Shift to NIR
- Lower noise detectors
- Low cost detectors
- Low cost high power laser

Single Photon detection

What does that need

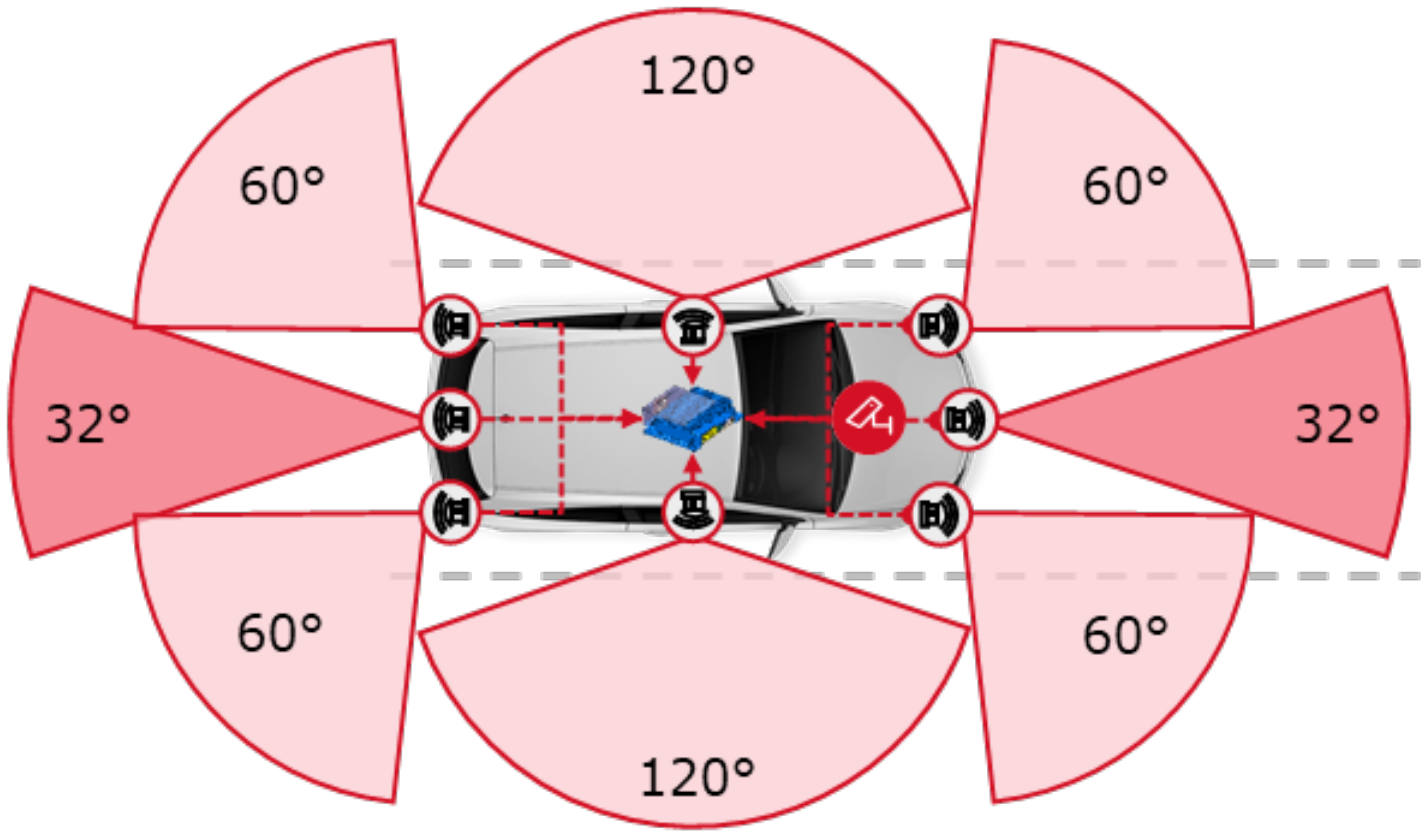
- Higher detection probability
- Higher pixel density
- High peak power addressable VCSEL-arrays

Coherent detection

What does that need

- Tuneable coherent laser sources
- Highly integrated Si-Photonics circuits

360ЦLIDAR COVERAGE



- Different fields of view require different performance
- High performance needed in a limited field to the front and to the rear
- 360° LIDAR coverage will utilize different LIDAR-technologies

QUESTIONS?

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