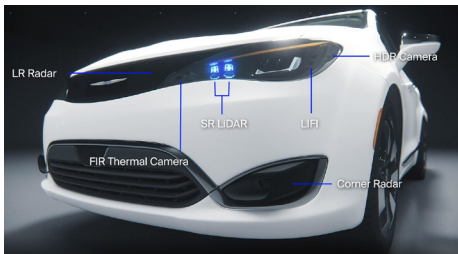
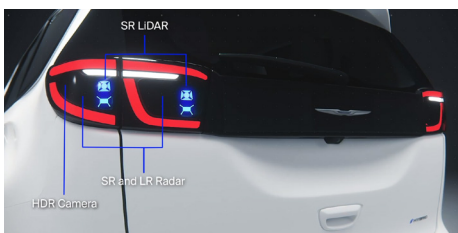


SMART CORNER

Sensor integration



Concept of integration in headlamp



Concept of integration in rear lamp

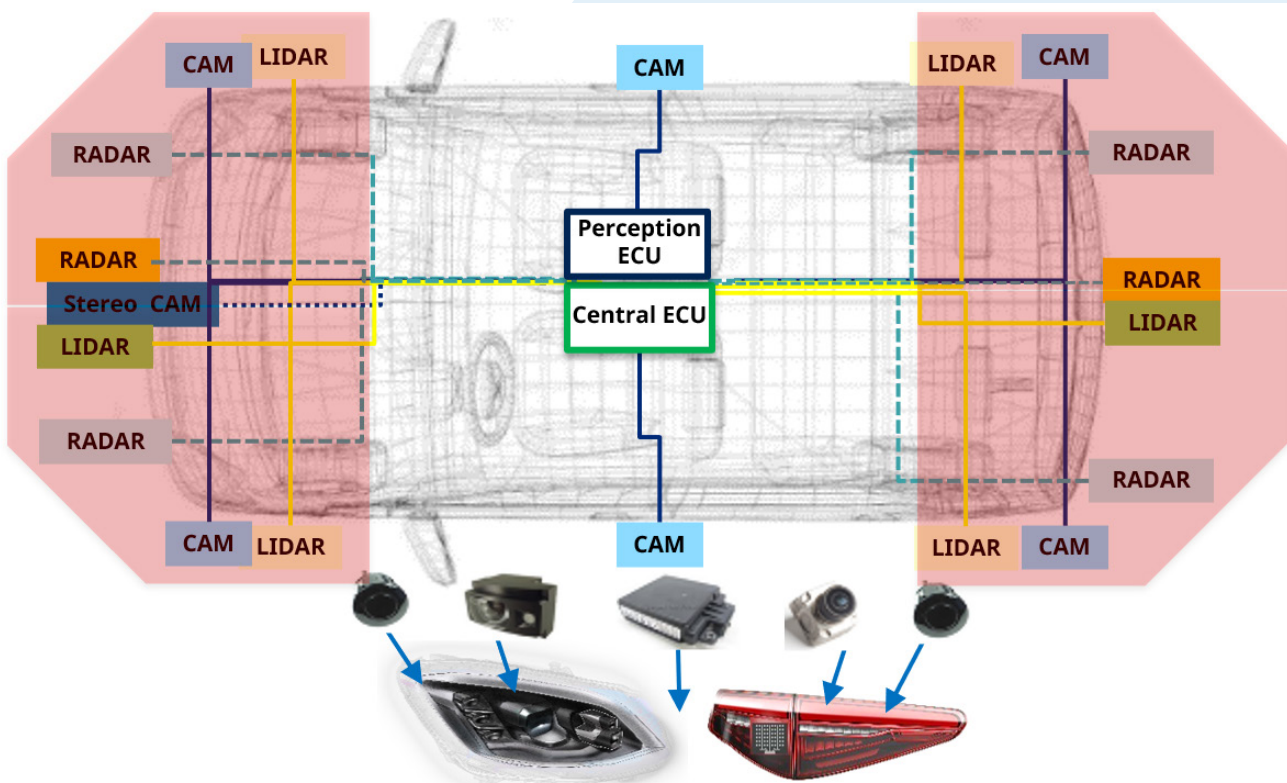
Concept

Sensor integration in lighting products, front, back, grille or roof modules to support future ADAS/AD features.

- Most sensors will move towards the corners to reach the best Field of View (FOV)
- Integration of sensors such as:
 - Radar / Lidar / Camera / FIR camera / LiFi
- Detection / Perception ECU
- Lighting functions in surface, grille & lightbars

Benefits

- ADAS features (level 1-2) require already 4 - 15 sensors (Camera, Radars, ...)
- 20 - 35 sensors will be needed for ADAS level 2+ up to level 5
- SMART CORNER preserves stylistic integrity
- pre-calibrated sensors with simplified vehicle architecture
- Easier manufacturing process which lower the installation costs



SMART CORNER

Sensor integration



Additional advantages of sensor integration into lamps

- Use efficient cleaning and heating system on lens
- Achieve cost savings by shared/no duplication of parts with front and rear lamp (heatsink / housing / etc.)
- Concentrate the sensors in more protected area of the vehicle
- Optimize styling of vehicle front / back
- Show the sensing technology if desired



HL Prototype with integrated Long Range LiDAR



HL Prototype with integrated Front Corner RADAR



RL Prototype with integrated Rear Corner RADAR, hidden behind the lens

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