

# From L2 to L5 Autonomy, the Road Ahead is Safe with Arbe

Arbe is redefining safety for next generation vehicles with Phoenix, the world's first ultra high-resolution 4D imaging radar product family.

Phoenix delivers unparalleled radar performance to enable superior decision making capabilities. Generating a detailed image, Phoenix allows for the identification and tracking of objects in range, azimuth, elevation and velocity dimensions, to long ranges while applying post-processing and SLAM.



## Delivering Unprecedented Road Safety

With a wide field of view and long, mid and short-range detection, Phoenix detects hundreds of objects in real time, differentiating threats from false alarms no matter their speed or lack thereof, elevation, proximity, size, or surrounding weather and lighting conditions.

Complemented with a second layer of processing and SLAM, Phoenix tracks and classifies objects and localizes the vehicle.



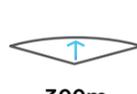
## Our Radar Solution



**1° Azimuth  
2° Elevation**  
Ultra high resolution



**100° Azimuth  
30° Elevation**  
Wide field of view



**300m**  
Long range



**30 FPS**  
Real time



**7.5cm-60cm**  
High range accuracy



**0.1 m/s**  
Doppler resolution



**≈0**  
Minimal false alarms



**100s**  
objects identified

## From standard maneuvering to high-risk engagement, the road ahead is safe with Arbe.

With wide dynamic range and unparalleled stationary object detection capabilities, Phoenix identifies, assesses and responds to challenging, yet common, driving scenarios with real-time threat detection, reliable free-space mapping, advanced path planning, and rigorous safety functionality.

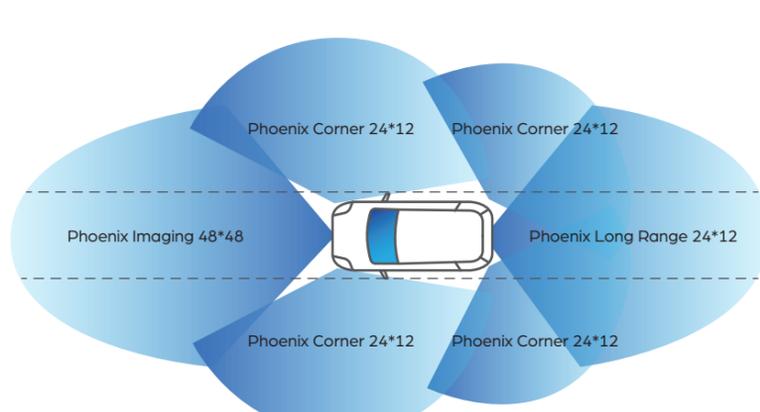
## Proprietary Chipset Technology

Arbe's patented advanced FMCW radar, with a virtual array of thousands of channels, consists of proprietary transmitter, receiver & dedicated processor chips, leveraging the cutting edge 22nm RF CMOS process, for size, cost and power optimization. Our patented signal processing solution reduces required computational power and achieves breakthrough performance.



## Modular & Scalable

From L2 to L5, Arbe's feature-rich imaging radar is modular and can scale from long-range front-end, mid-range rear, to corner, allowing OEMs the freedom to define resolution, range, field of view, and functionality to fit design specifications and cost requirements. Compatible with standard radar solutions in both size and weight, Phoenix integrates seamlessly into any vehicle design.



## About Us

A technology-first company, Arbe is powered by an elite team of semiconductor engineers, radar specialists and data scientists who bring highly specialized skills to the forefront of the autonomous driving industry.

Arbe has developed the first sensing technology trusted to handle real-world driving situations including the common and the exceptional, establishing the 'missing link' in the evolution towards level 3 and higher autonomous driving.

**arbe**  
A radar for the road ahead

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