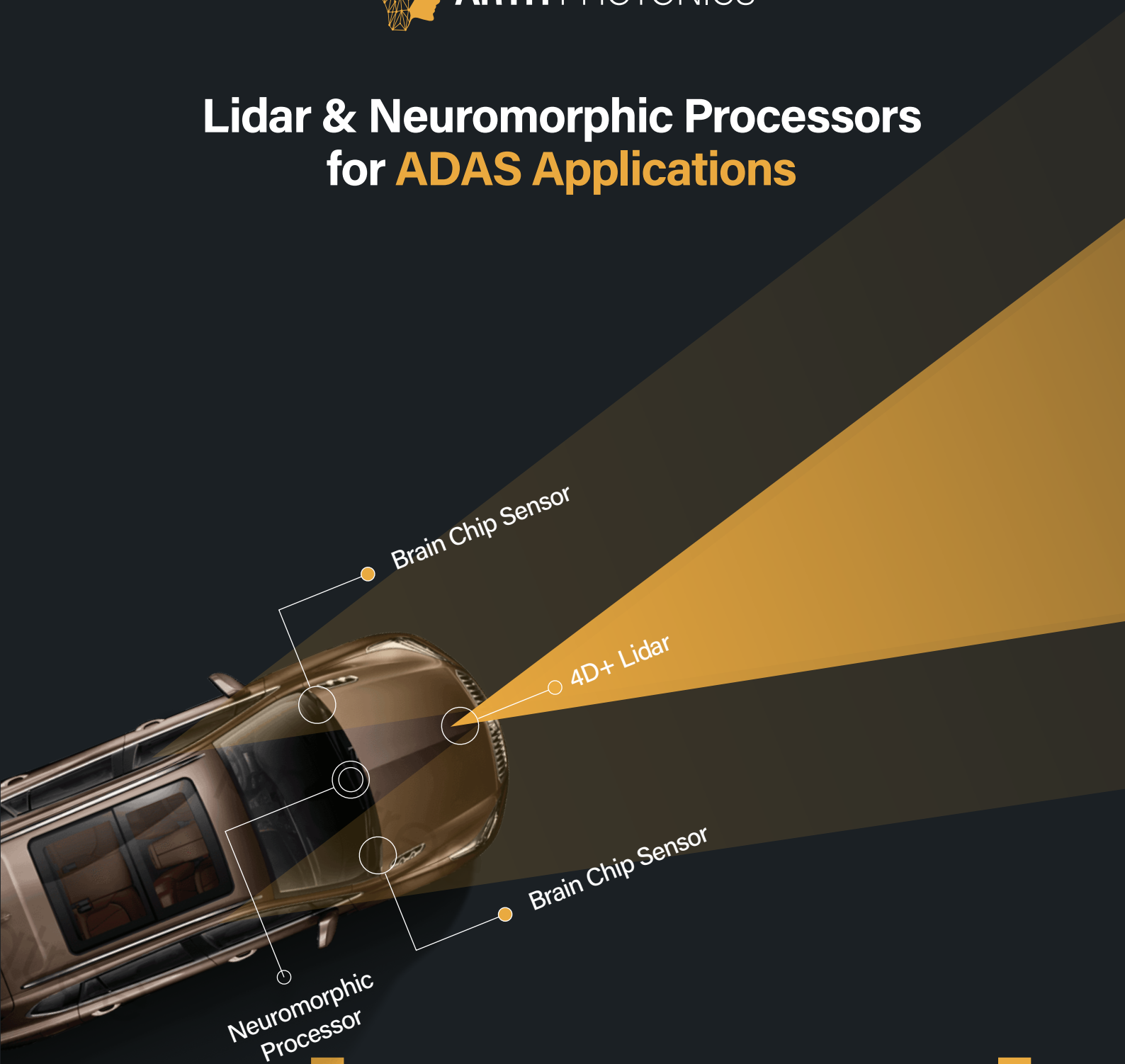
ARTH PHOTONICS

Lidar & Neuromorphic Processors for ADAS Applications



Advanced Technology

ARTH PHOTONICS

4D+ Imaging Lidar With Brain Inspired Neuro Processor

We are introducing one of the cheapest and most advanced an all-Solid-State Coherent Lidar, enabling ultra-high resolution 4D imaging (3D + Velocity) combined with our Event-Based Neuromorphic Vision Sensors and Neuro Signal Fusion techniques with Artificial Intelligence, for real-time object mapping that allows autonomous systems to perceive and react to the world around them accurately and officiently.

- 4D+ Coherent Solid-State Lidar
- Event Readout Based sCMOS Sensor Tracking
- Fast Neuromorphic Processor for Ultra Fast Data Processing
- 4D + Lidar & NMS Sensor Fusion
- Infrared Technology – Immune to Sun Light, Fog, Rain, Can operate 24 x7
- Complete Solid-State Tech – No moving parts
- Eye Safe
- 4D + Lidar
- Low Cost for High Volume Manufacturing
- Complete IP of the Chip/ASIC with us
- Wide FOV (85 x 55 degree)
- High Angular Resolution (0.05 degree)

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4D+ Imaging Lidar With Brain Inspired Neuro Processor

4D+ Lidar Specifications

300m range @10% Reflectivity
- Ranging Capability
- Enables Car with Speed beyond 150 KM/h to generate collision warning in time

85^0 x 55^0 Field of View
- Enables objected detection at high curvatures

1.5 Mpts/s
- Points Rate (Multi Returns)

0.05^0 (H) x 0.05^0 (V)
- Angular Resolution Enables Pedestrian identification at top speed of 150 KM/h

15 W
- Power Consumption

W 120mm x H 120mm x D 40mm
- Dimensions

500g
- Weight

FMCW– Flash
- Technology

Intensity, Distance, Location, Velocity (4D+)
- Output Data products

20 FPS
- For High-speed moving targets Detection and Collision warning generation within 0.5 second

Optics Design | Electronics Design | Mechanical Design | Software Design | Lidar Test Bed

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4D+ Imaging Lidar With Brain Inspired Neuro Processor

Neuro Sensor Specification

300m range
- Enables Car with Speed beyond 150 KM/h to generate collision warning in time

60^0 x 20^0
- Field of View
- Enables objected detection at high curvatures

50 Mevents/sec
- Points Rate (Multi Returns)

0.05^0 (H) x 0.05^0 (V)
- Angular Resolution
- Enables Pedestrian identification at top speed of 150 KM/h

10 W
- Power Consumption

W 100mm x H 100mm x D 30mm
- Dimensions

400g
- Weight

Neuromorphic – EVS
- Technology

AER (Address Event Representation)
- Output Data products
- Data products

1000 FPS
- For High-speed moving targets Detection
- and Collision warning generation within
- 0.5 second

ASIC Design

Photonics ic Design

Semiconductor Packaging

Water test and Characterization

Electro Optical Characterization

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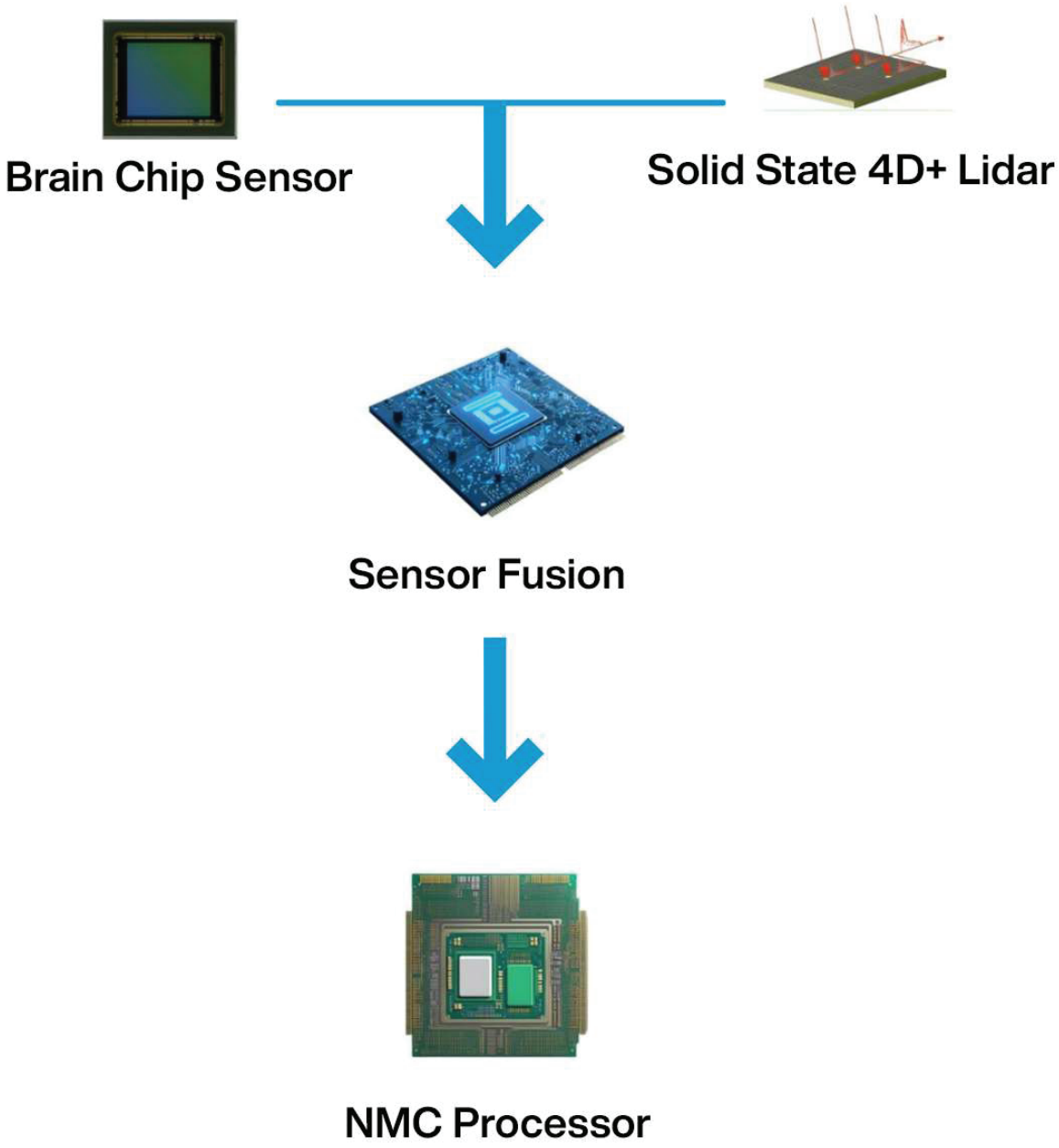
4D+ Imaging Lidar With Brain Inspired Neuro Processor

Advanced Sensor Fusion



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