Lidar Domain ECU

High Performance ECU with Exceptional Flexibility
TECHNOLOGY & INNOVATION

- High-performance electronic control unit providing a safe computational environment for perception algorithms and sensor fusion systems
- Processes data of different sensor technologies, such as lidar, imaging radar, or camera
- Compatible with both air and liquid cooling solutions thanks to multiple design variants
- Developed in accordance with ISO 26262 to provide a safety classification up to ASIL B(D)
- Supports state of the art cybersecurity mechanisms to prevent unauthorized access
- Provides a large operating window from -40°C up to 80°C for air-cooled variant, with higher temperatures possible for liquid-cooled variant depending on vehicle’s cooling solution
- Features protection against dust and water incursion in accordance with ISO 20653
CUSTOMER VALUE

- Offers quick time to market solution with minimal development effort for OEMs
- Supports sensor systems featuring up to five ibeoNEXT solid state lidar sensors
- Compatible with ibeoNEXT sensor as well as 3rd party sensors with an Ethernet interface
- Enabling technology for sophisticated ADAS and AD functionalities
- Supports simultaneous output of low and high level fusion datasets for distributed vehicle safety concepts
- Allows for addition of CAN FD connectors if required
THE IBEO DIFFERENCE

▶ Helps to reduce development efforts for complete lidar system significantly thanks to market readiness of high performance electronic control unit

▶ Dual design approach offers high flexibility to customers with different cooling solutions

▶ Simplifies vehicle integration of multiple sensor technologies and fusion systems due

IBEONEXT LIDAR SYSTEM

Traffic situation

11.2° optic

60° optic

60° optic

Lidar Domain ECU

Integrated point cloud

Intensity image

3D object tracking

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