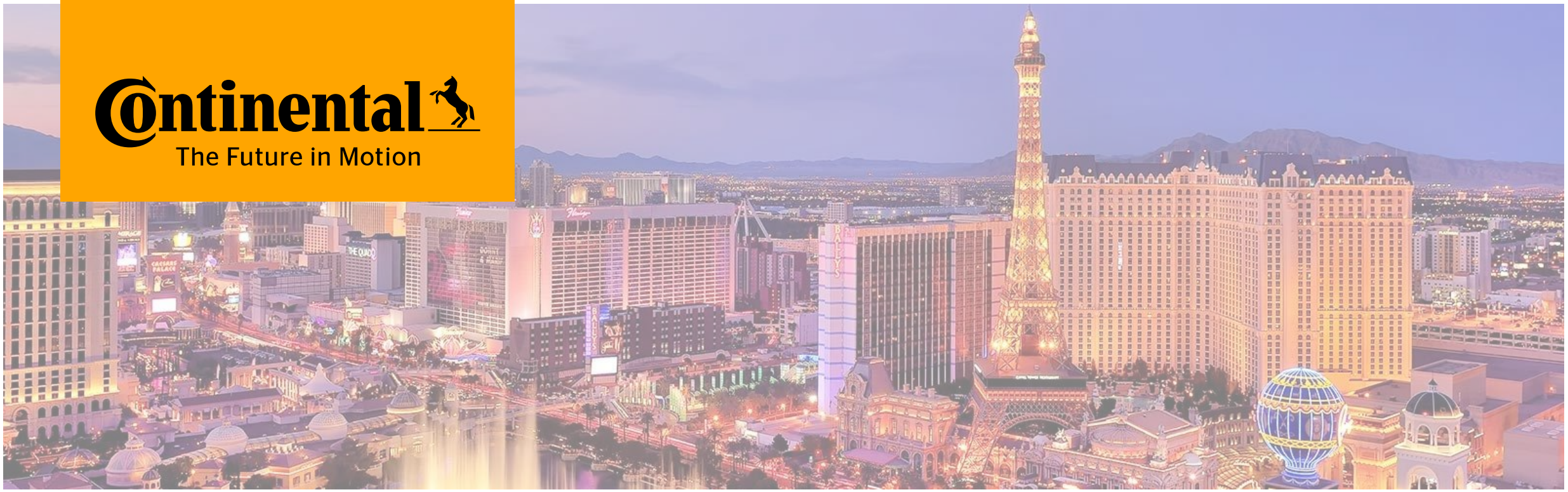
Continental
The Future in Motion



Post CES 2023

Technology One Pagers

CES

Curved Ultrawide Display

SOP: 2025

Benefits & Features

- **OEM / Customer Benefit**
  - **World's first curved pillar-to-pillar display with shy control surface**
  - 129 cm display area providing infinite space for a **seamless user experience**
  - **Innovative interaction concept** with shy control surface
  - Premium design creating a **living room on wheels**
- **Technical Solution**
  - **47.5' single panel TFT display**
  - **Shy control display** with active haptic feedback
  - **Local dimming** for highest image quality and energy efficiency

Functions

- **Demo Use Cases**
  - Seamless visual experience for driver and passenger (1 display instead of 3)
  - Control concept for curved P2P display with remote control screen
  - Touch Control for Driver and Co-Driver

Technical Information

- Curved ultrawide 8K TFT Display with local dimming (>3000 LEDs)
- Shy Control Panel
  12.3" TFT Display (1920*720)
  with local dimming (>300 LEDs)
  incl. capacitive multi-touch and active haptic feedback

Picture

Infinite space for new experiences.

Business Area

User Experience

Driver Identification Display

SOP: 2025

Benefits & Features

- **OEM / Customer Benefit**
  - **World's first display with secure authentication**
  - Convenient, touchless solution for **driver identification and mobile payment**
  - Secure & fast **biometric face identification**
  - Seamless **invisible display integration** of camera increases user acceptance
- **Technical Solution**
  - **Spoofing detection** by liveness check with beam profile analysis
  - **No additional sensor** (e.g. fingerprint) needed

Functions

- **Demo Use Cases**
  - Secure face authentication of driver incl. spoofing detection
  - Driver monitoring features (drowsiness & distraction detection)
  - Object detection

Technical Information

- 1MP NIR-camera (1280 x 800) + NIR flash
- Beam profile analysis based on NIR VCSEL
- Performs from darkness to bright sunlight
- Fulfills requirements for iBeta Level 2 certification

Picture

Securing it's you.

Business Area

User Experience

High Resolution 3D Display

SOP: 2025

Benefits & Features

- **OEM / Customer Benefit**
  - **5K high resolution 3D display**
  - **Natural 3D effect for all passengers**
  - **Adding depth** to the digital world
- **Technical Solution**
  - **3D Lightfield display developed in cooperation with Leia Inc.**
  - **Ultra large eye-box**

Functions

- **Demo Use Cases**
  - Welcome scenario, 2 themes
  - Driver information
  - Adaptive navigation view
  - Variable 3D depth adjustment

Technical Information

- 12.3” display, 5k native resolution
- Lightfield backlight w/ 13 views (horizontal) w/o headtracking
- 3D brightness 1000 cd/m²

Picture

Enabling the metaverse in your car.

Business Area

User Experience

V2X Collective Perception

SOP: 2024/2025

Benefits & Features

- Most effective technology to save non-line-of-sight (NLOS) Vulnerable Road Users (VRUs)
  - V2X with CPM addresses 3X more vehicle-versus-VRU crashes compared to Basic V2X
  - When used with ADAS and Basic V2X, CPM can address up to 90% of all vehicle vs. VRU crashes (which are more than 600,000 fatalities per year globally)
- Additionally protects crashes with non-connected (non-V2X) vehicles, which will remain the majority of vehicles on the roads for 10+ years
  - Therefore, CPM provides much earlier life-saving benefits than only Basic V2X
- Works with 2 vehicles, or 1 vehicle plus infrastructure (does not require 2 vehicles to provide benefits)
- Effective on both open roads and at intersections
- Much lower data cost than raw sensor sharing
- Enables USP benefits for multiple Continental products (Telematics, Intelligent Infrastructure, ADAS, and backend systems)

Functions

- "Seeing through the eyes of others"
  - Enables efficient, low-data-rate sensor data sharing vehicle-to-vehicle (V2V) and infrastructure-to-vehicle (I2V)
  - Greatly improves environmental awareness by allowing a vehicle to see more than only with its own ADAS line-of-sight (LOS) sensors
- Extends ADAS safety use cases by adding NLOS sensor capability

Technical Information

- Global Standards-based (ETSI, SAE, China), but with differentiation by Continental-owned IP for processing of the V2X CPM data
  - China standard exists; ETSI/SAE in approval stages now
- Software Solution running on Continental Telematics HW (TCU or IAM), Continental HPC, and/or Continental Infrastructure
  - Adds to existing Conti V2X SW
  - SW can also be marketed separately

Saving Lives with V2X CPM

Business Area

Architecture and Networking,

Product Line 2 Telematics

Continental Advanced Antenna

SOP: In Production

Benefits & Features

Cost attractive customized solutions

- Continental Advanced Antenna technologies offers flexible high customized solutions for all customer's antenna needs.

Valuable Partnership

- With its many years of expertise, the Continental Advanced Antenna design team can integrate an antenna everywhere in the car minimizing the tedious compromise between esthetic needs and technical performances

Decades of proven expertise

- Continental with the acquisition of Kathrein brought home almost a century of history in antenna design

Functions

Exterior & Interior Antennas

- Meeting esthetic & environmental requirements and providing high technical performances

Hidden Antennas in functional parts (e.g. side mirrors)

- Ensuring high performances and no disturbances with the part core functionality

Car body integrated Antennas (e.g. bumpers)

- Ensuring high performances without affecting car body integrity

Technical Information

Scalable & highly integrated solutions for:

- MIMO 5G
- HP GNSS
- V2X
- WiFi/BT
- Cameras
- SDARS
- RKE

Pictures

Business Area

Architecture and Networking

Autonomous conductive charging device (ACD)

SOP: 2025

Benefits & Features

- Hybrid and Electric Vehicles
- Passenger cars and light commerical vehicles
- Use in public and private areas
- Connection and Charging are carried out automatically
- Precise parking not necessary
- 360˚ Self-centering conductive connector
- Ground unit is a plug & play installation
- Vehicle and Ground Unit are dirt, water and touch protected until contact established

Functions

- By enabling automatic, high voltage battery charging for electric and hybrid vehicles, the conductive charging robot ensures a more convenient, highly reliable and efficient solution for both public or private use.
- The plug & play charging system comprises two components;
  - the vehicle unit (located on the underbody of the vehicle)
  - the ground unit (located on floor at the intended charging location i.e. garage or public parking space etc.).
- Both units are protected from dirt and water to automotive standards, ensuring safe and reliable operation at all times.
- As the vehicle approaches the ground unit, a display inside the vehicle ensures that the vehicle is positioned within a 15cm radius of the ground unit.
- Once parked, the 2 systems automatically connect, and charging is commenced with no user action required.

Technical Information

- Vehicle Unit Dimensions – 226....375 x 203 x 39 mm
- Vehicle Unit Mass - ~2kg
- Ground Unit Dimensions – 795 x 440x 68 ...77mm
- Working Area – 300mm Diameter
- Charging Power – 22kW AC, DC Preparation
- Vehicle Unit Interface – HV powerline, 12V power supply, CAN to the vehicle, Bluetooth and Ultra Wide Band to the Ground Unit
- Ground Unit – Connection to wallbox via country specific connector (power and communication) according to IEC standard or fixed installation

Picture

Business Area

Safety and Motion,

Continental Engineering Services

Child Presence Detection using Ultra-Wideband

SOP: 2025

Benefits & Features

- EU NCAP and US regulation activities are driving for new child safety requirements in the vehicle by 2025
- Continental is the worldwide pioneer bringing ultra-wideband digital car access CoSmA into the automotive world
- Extending the ultra-wideband technology with sensing features enables child presence detection
- Integrated in the OEM car architecture the system allows a precise detection of an occupant e.g., child in the cabin.
- Scalable solution enables significant cost savings on OEM side by avoiding additional Radar hardware components specifically dedicated for CPD

Functions

- Classification based on **respiration rate and micro motion detection**

Technical Information

- Detection and classifier algorithm

Picture

Business Area

Architecture and Networking,
Product Line Access Solutions

HRL131 High Performance LiDAR
Enabling L2+ to L5 Autonomous Vehicles

SOP: 2025

Benefits & Features

- **Single box, dual receiver**, high-performance **long**- & mid-range LiDAR for L2+ – L5 autonomous driving and active safety features
- Use Case **configurable scan patterns**; possible on-the-fly
- **Small, Patented MEMS** (Partnered with AEYE) mirror design providing solid-state robustness and reliability using AEye IP
- Performance adjustable frame-to-frame FoV
- Output: Point Cloud & Intensity data and Object List
- **1550nm fiber laser** with pixel level control
- **LiDOME cover with built-in heaters** & blockage detection
- **Gigabit Ethernet** (IEEE 802.3)

Functions

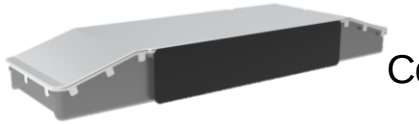
- **Highway / Cruising chauffeur, dense urban environments**
- **Flexible mounting locations**: Grille or Roof
- **Mechanical**
  - LiDOME with integrated heater
  - **IP6K9K** packaging of sensor
- Solid performance under adverse weather and road conditions (direct sun, night, rain, fog, snow, dust, smoke)
- B-samples (compact design) available today

Technical Information

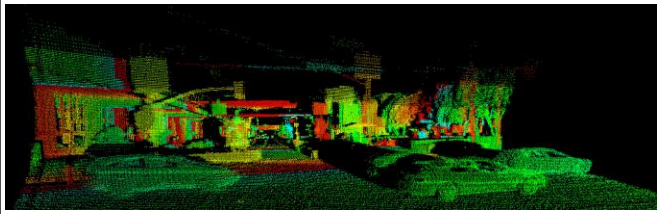
- Range: > **500m** (330m @ 10% reflectivity)
- SW Configurable Fields of View (H x V) with dual receivers:
  - **Wide Peripheral: 125° x 25°**
  - **Ultra-long-range ROI*: 25°x8°**
- Resolution:
  - ROI*: **0.05° x 0.075°** with Max Resolution
  - Peripheral: 0.4° x 0.4°
- Frame rate: **10 ~ 20Hz** (typical)
- Integrated IMU
- **Class 1 eye-safe sensor** IEC 60825 (Ed. 3)
- Operating temp: -40 °C to +85°C

Picture

B-Sample



Concept



Business Area

Autonomous Mobility,

Product Line LiDAR

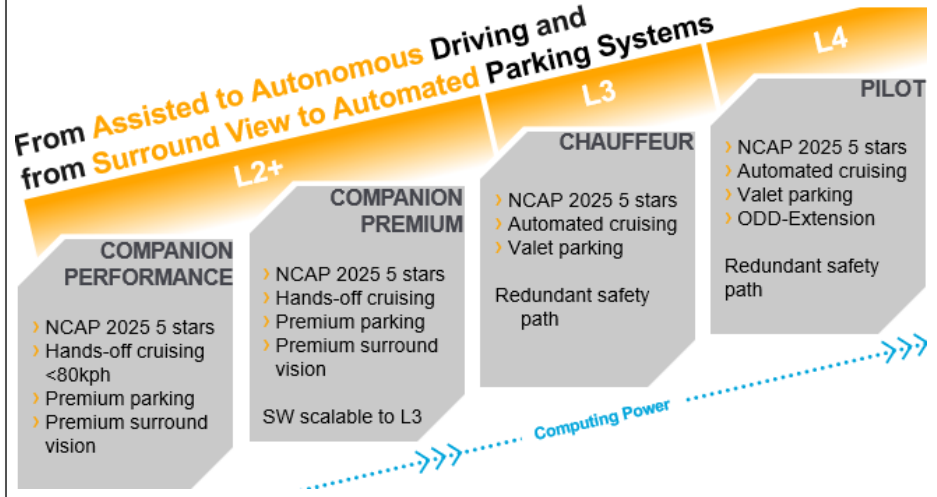
Companion Premium Full Automated Driving Stack

Benefits & Features

- Continental with 20+ years full-stack supplier of driving systems including software and sensor products
- Ambarella with 18+ years of power efficient vision processing & 25+ years of Autonomous Driving (AD) algorithms
- Joining forces to provide full-stack solution scalable from low-end to premium ADAS and AD applications for passenger cars and for trucks

- Robust Autonomous Driving experience from CV3-AD's higher performance
- Battery, weight, & packaging savings for EV due to simplified cooling methods and smaller ECU or HPC footprint

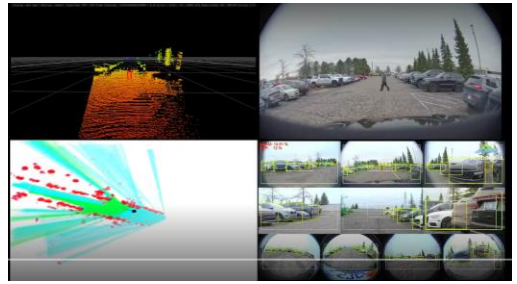
Functions



Technical information

- Scalability: Ambarella with most scalable SoC platform vs. competition
- High performance and power efficiency compared to SoC competitors in the AD market
- Full Continental AD scalable system availability based on any combination of Continental sensor hardware & processing, perception, and driving functions

Exhibit + Demo Vehicle



Business Area

Autonomous Mobility

Zonal Architecture
x-Domain Zone Control Units (ZCU)

SOP: 2023

Benefits & Features

- **Zonal architectures consolidate vehicle functions in physical zones** allowing an overall reduction of the vehicle's architecture/network complexity and costs
- The ZCU **supports the separation of HW and SW and optimizes the E/E architecture complexity and costs** (for example the length of the cable harness is reduced) and **minimizes CO2 emissions**
- Scalable **Smart Power Distribution**
- **Communication gateway** (Ethernet, CAN/FD, LIN, ...)
- Full support of **security & safety measures** (ASIL)
- Supply of **infrastructure functions** (power/health **management, time synchronous networking**, etc.)
- Modular and **scalable platform concept** to meet the wide range of specific customer requirements and address various vehicle variants
- Together with the High-Performance Computers our **ZCUs build the required Hardware fundament for the software-defined vehicle**

Functions

- The zonal architectures **enable a domain independent zonal management of vehicle functions for new server-based vehicle architectures**
- The ZCU is located in the physical location of the vehicle to **consolidate inputs/outputs** from the various sensors and actuators and other ECUs
- The ZCU is also **the host for real-time critical functions** in a server-zone architecture
- **Power management** can be integrated into the ZCU

Technical Information

- Backbone including scalable µC strategy, power supply and communication interfaces
- Ethernet interface (PHY, Switch) to server/s (High Performance Computer/s) CAN (FD)/LIN for zonal network
- ZCU support TSN, UDS master (in the zone)
- Standardized E/E and software modules
- Smart fusing / switching up to 40A

Picture

Business Area

Architecture and Networking

Function as a Product (FaaP)

SOP: 2024

Benefits & Features

- Continental offers functions full stack – from high-level applications down to real-time and safety critical software
- OEM can choose from a full range of solutions in our functions catalog
- Shorter time to market with reusable assets allowing the OEM to focus on differentiating features
- Independent sourcing of hardware and software supplier possible (system / hardware design consulting service available)
- OTA upgrade and update possibility after SOP
- Cloud functions enable the use of new technologies / functions not limited by the hardware in the vehicle
- Full cyber security and FSM (Functional Safety Management) automotive compliant solutions
- Easily configured and managed across vehicle lines
- Continental provides integration, collaboration and consulting services enabling long term support and maintenance

With our Function as a Product solutions, Continental enables OEMs to develop solutions faster to the market and be more cost-efficient.

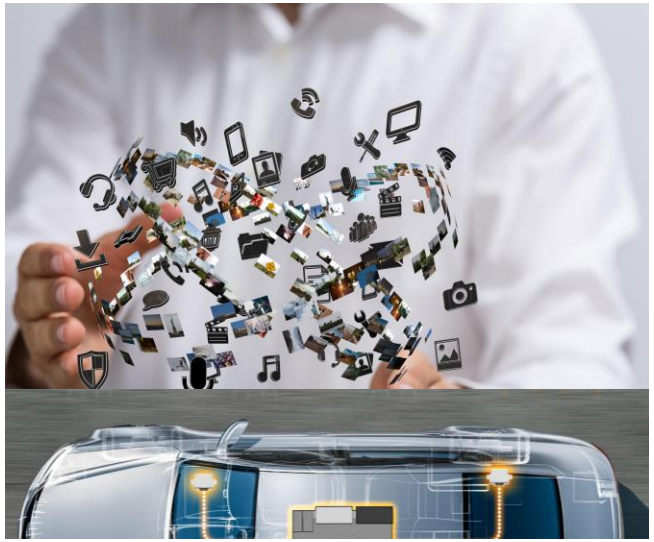
Functions

- With Continental's "Function as a Product" portfolio we offer a full range of body & actuator functions as fast and cost-efficient off shelf solutions, which are ready to be integrated in x-Domain products.
- Based on our long history of supplying body electronics, our new hardware decoupled function applications bring the software defined vehicles to live.
- All Services can be offered as Full-Service-Package incl. Software, Hardware and Cloud

Technical Information

- Sensor and Actuator x-Domain turnkey solutions
- Full Scale Function Library available
- Modular and scalable solutions
  - Integration Service (horizontal and vertical)
  - Calibration Service
  - Homologation Service

Picture



Business Area

Architecture and Networking

Holistic Motion Control System

SOP: 2024+

Benefits & Features

There's an ongoing transformation towards:

- Skateboard chassis
- SW-defined Vehicle
- Server-based architectures
- Centralized orchestration of vehicle motion
- Increasing levels of Automated Driving

Our Roadmap enables the OEM's to realize those benefits & features with...

- Holistic Motion Software as a unified interface, actuator agnostic and decoupling the driving function from the specific actuator and vehicle setup
- Powerful Master Controller and cross- domain High-Performance Computer solutions as function host for various E/E architectures
- By-wire technology for more design freedom in new chassis architectures
- Adaptive Suspension to increase vehicle dynamics and comfort and reduction of fuel/energy consumption and CO2 emissions

Functions

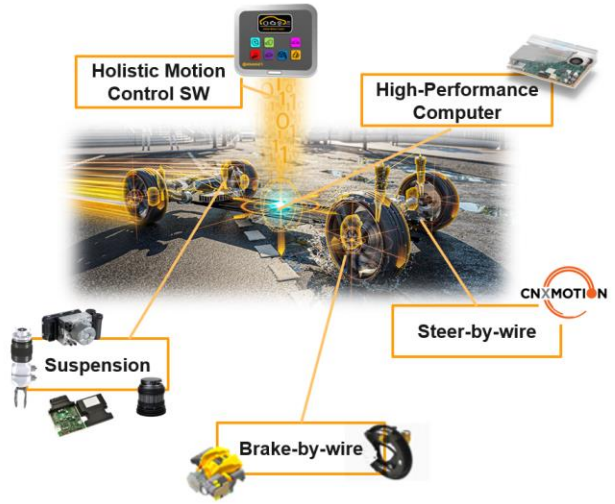
Continental offers full system solutions and individual HW & SW components as "*One Stop Shop*!"

- Holistic Motion Control Software
- High-performance Computer
- True Brake-by-Wire capabilities
- True Brake-by-Wire capabilities
- Suspension solutions

Technical Information

- Scalable host independent Application Holistic Motion Control SW
- Orchestrating all vehicle motion actuators enabling their redundancy
- Various High-Performance Computer hosts for Motion Control, depending on computing power and E/E architecture.
- Smart Brake w/ Electronic Brake Pedal & Fluid less & Support green brake calipers
- Steering control with enhanced Driver and Machine interface & leveraging infinitely Variable Steer Ratio to improve vehicle dynamic functions
- Smart Air Suspension system w/ Scalable Chassis Actuator Drive

Picture



Shaping Driving Emotions

Business Area

Safety and Motion

Electric Corner Module

SOP: 2028+

Benefits & Features

- Plug & play module for reduced vehicle assembly and service effort, e.g. no fill & bleed process
- Reduced R&D investments for manufacturers of purpose-built vehicles thanks to ready-to-use approach
- A compact and highly integrated chassis and propulsion system
- Scalable and modular construction kit for all wheel components: propulsion, dry brake system, suspension, electric steering, rim and tire
- Highly efficient propulsion without transmission
- Requires less electronic control units and wiring
- Increased vehicle uptime
- Supports automated driving architectures
- Offers possibility of ground level access for delivery vehicles
- Allows maximizing usable volume for given vehicle footprint
- Vehicle weight monitoring

Functions

- Integrated control functions for highly efficient propulsion and chassis control
- Silent single wheel torque control
- Slip control including blending
- Active leveling for load compensation and easy access
- Vehicle mass calculation based on air spring pressure
- Tire pressure monitoring

Technical Information

- Power electronic integrated together with control electronic: inverter for electric drive and power electronic for actuators integrated and commonly cooled
- In-wheel electric motor
- Dry electro-mechanical by-wire brake system
- Active suspension

Picture

Enabling Tomorrow's Solutions

Business Area

Safety and Motion,

Strategy & Future Solutions

Sensors for EV

SOP CSM 2022
SOP eRPS 2025
SOP BID 2025

Benefits & Features

- Current Sensor Module (CSM)
  - Two physical independent measurement methods (shunt and hall sensor-based) in one housing
  - Combines signal availability, robustness and accuracy
  - Supports ASIL D on system level
- Battery Impact Detection (BID)
  - Driver can be warned, or service can be informed
  - Passive battery protection can be reduced significantly by active underbody protection
  - System can react on heavy impacts
- e-Motor Rotor Position Sensor (eRPS)
  - Reduced weight and size
  - Low power consumption
  - Easy and cost-efficient assembly due to included sealing

Functions

- Current Sensor Module (CSM)
  Used in electric or hybrid vehicles, measures current and temperature and delivers them to the battery management system to ensure the longevity of the battery
- Battery Impact Detection (BID)
  Detects impacts on the lower part of the battery / vehicle and can sense exact location and strength of the impact
- e-Motor Rotor Position Sensor (eRPS)
  Measures the angular position of the rotor shaft in synchronous electric motors for an efficient torque control

Technical Information

- Current Sensor Module (CSM)
  - Analog and digital output (CAN)
  - ± 2.000 A / shunt-channel 1% accuracy, hall-channel 3% accuracy
- Battery Impact Detection (BID)
  - Widely used and fully qualified components, PSI5 Interface
- e-Motor Rotor Position Sensor (eRPS)
  - Up to 30.000 RPM
  - IP6K9K (proof against dust and powerful hot water jets)

Picture

We make your EV sound and safe

Business Area

Safety and Motion

CAEdge: Continental Automotive Edge Framework with Elektrobit Software - Create. Develop. Explore.

SOP: 2022

Benefits & Features

OEM / Customer Benefit:

- **CAEdge enables faster development** of and deployment of distributed functions for Scalable Vehicle Computing Platforms across the IoT mobility ecosystem (Vehicle/HPC, Cloud, Mobile...)
- **CAEdge provides interchangeable building blocks** with pre-defined, easy-to-adapt interfaces across the stack covering hardware, software, tooling and the cloud.
- **OEMs can offer better customer experience** by flexibly updating software through OTA updates, bringing new features to drivers over the complete lifecycle of the vehicle
- **Customers can start immediately** using the cloud, HPC Development Kit without production hardware. All you need is an account.

Technical Solutions

- **Modular and scalable compute platform** providing a stable environment for all domain HPC software development
- **Automotive grade designed building blocks** and system capabilities providing a clear path to production
- **Cohesive, integrated tool framework** for user friendly and fast SW development and operations
- **Non-differentiating automotive-grade Operating System** and middleware from Elektrobit, enabling easy function development
- **Cloud as scalable extension** of embedded and on-prem resources providing unlimited potentials for services and functions

Functions

- The software-defined-vehicle: Deployment of function from marketplace and selecting user specific configuration for the vehicle (OTA Update to HPC)
- Involvement of the Developer Workbench - Function Deployment
- Highlighting Modular and scalable compute platform
- Virtual Development (CI/CD)

Technical Information

- **New Version of HPC** with x-domain SoM
- **Workbench** for efficient function development and deployment
- Ecosystem of **cloud & HPC** – with EB corbos Adaptive Autosar, Linux & Hypervisor, EB tresos AutoCore & Safety OS and EB cadian OTA
- **Monitoring** of SOM/SOC performance

Picture

Scalable Compute Platform (HPC 2.0, HDK)

CAEdge Demonstrator

Business Area

Automotive Software and Central Technologies, Architecture & Software, E/E Architecture; Elektrobit

Elektrobit: EB zoneo. Master in-vehicle network challenges.

SOP: 2023

Benefits & Features

- Automotive in-vehicle communication demo will showcase network features from the EB zoneo product line to improve overall network performance.
- Car makers and Tier 1 suppliers can achieve new functionalities without extra resource consumption on the microcontrollers or SoCs while simultaneously reducing integration efforts and time to market.
- Intelligent off-the-shelf products and pre-integrated cybersecurity options such as the intrusion detection prevention system (IDPS with Argus Cyber Security) make it possible.

Functions

- Six use cases:
- IP routing in a switch, Health check, IDPS, IP routing in hardware, Protocol tunneling, VM arbitration. These network features show the direct impact on the CPU load, with improvements in processing time and network startup.

Technical Information

- Demo shows benefits of usage:
  - EB zoneo SwitchCore and SwitchCore Shield (highly optimized firmware for switches)
  - EB zoneo VSwitch (virtual switch for MCU with extra virtualization and QoS features)
  - Various extensions to the COM Stack of the Classic ASR to include HW accelerators for performance improvements

Picture

Business Area

Automotive Software and Central Technologies, Architecture & Software, Elektrobit

Future Brake System
Evolution towards “New Brake System Architecture”

Benefits & Features

- Enables Brake-by-wire functionality for large BEV
- Zero Drag → increases range & lowers emissions
- Park Brake Redundancy included
- Automated Driving SAE Level ≥3 possible
- Manufacturing & packaging advantage
- Only electrical connectors, no more hoses

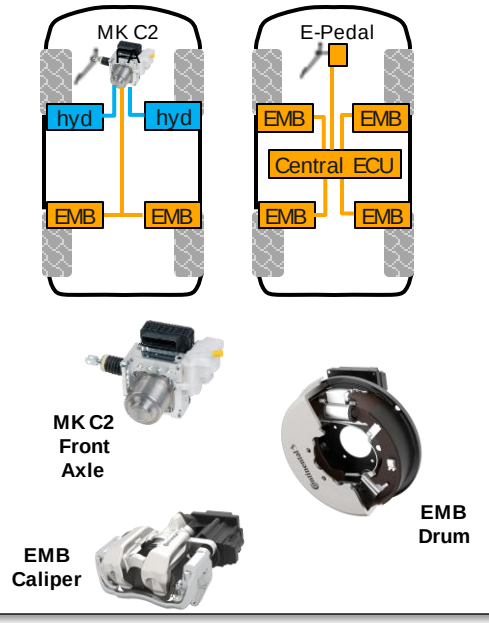
Functions

- Brake-by-wire for large electric vehicle
- Use standard size one-box Front Axle
- Combine with eDB independent service brake and redundant electric parking brake (gear lock removal)
- Safe introduction of dry-brake technology
- Zero drag – increased air gap
- Weight reduction

Technical Information

- FBS 2.0: Electro-Mechanical brakes on Rear Axle, hydraulic brake system for Front Axle
- FBS 3.0: Full dry brake system – E-Pedal + 4x Electro-mechanical brakes

Picture



Business Area

Safety and Motion

Connected Vehicle Safety Driving Simulator

SOP: 2023

Benefits & Features

- Get behind the wheel and experience 4 driving scenarios that produce some of the most catastrophic and frequent accidents, injuries and fatalities to drivers, passengers and vulnerable road users, but safely in a driving simulator!
  - The Wrong Way Driver Detection System uses automotive radar sensors, novel detection algorithms and cloud communications to detect and warn nearby drivers of a wrong way driver in their path.
  - The Intelligent Intersection uses radar and cameras, fused into a perception model of the intersection to broadcast V2X messages about every traffic participant it sees to receiving vehicles to prevent accidents.
  - When the sensing of a vehicle can be shared with other vehicles over V2X networks, drivers can virtually see around corners and through other vehicles to improve driving safety and efficiency. Vehicles can also react directly on the sensing of other vehicles and automatically initiate safety manuevers and braking to improve safety.

Functions

- Using the sensors and perception algorithms on both infrastructure and vehicles paired with connected vehicle technology we're able to demonstrate how different types of connectivity, sensing and intelligence can warn drivers of safety risks just-in-time to avoid catastrophy.

Technical Information

- Connected vehicle technology V2X / C-V2X, Cellular data and cloud
- Infrastructure sensing and perception with radar and camera fusion
- On vehicle sensing and perception
- V2X standards such as SDSM (Sensor Data Sharing Message), CPM (Collective Perception Message), BSM (Basic Safety Message)

Picture

Experience dangerous driving situations where connected infrastructure and vehicle technology can work in harmony to save lives

Business Area

Safety and Motion, Passive Safety & Sensorics, Electronic Chassis & Components

SW Products for HPC System Architectures

Benefits & Features

- **Low Speed Maneuvering**, **Safety**, **Cruising**, and **Visualization** functions offered as a bundle or individually
- **HW-agnostic** system or software solution
- **Scalable** and **modular** concept for driver assistance systems in compact, mid-sized and premium vehicles
- Overall **architecture complexity reduction** and **space savings**
- **Configurable** and **upgradable** to new customer functionality with **OTA**
- **Flexible** and **scalable** concept for highly integrated **cross-domain HPC solutions**
- Available **SW Products**:

Cruising	Cruising Entry (ACC, LCF)	Cruising Base (L2,semi-auto.lane)	Cruising Performance (L2-L2P , <80 kph)	Cruising Premium & AD
Safety	Safety (NCAP 3*)	Safety (NCAP 5*)	Safety Performance (NCAP Full Score)	AD Safety Path Driver Monitoring
Parking	Parking Entry (Semi automated)	Parking Base (Automated)	Parking Performance	Valet Parking
Human Vision	Rear Vision	Surround Vision	Surround Vision Performance	Transparent Trailer

Functions

- SurroundView
- Use case specific views
- Automated View Change
- Adaptive 3D Bowl
- Advanced Park Distance Warning
- Transparent Vehicle

Technical Information

- Mid sized SUV, VW Touareg
- GPU performance: 50 GFLOPS min
- 4x satellite cameras 2.5 Mpix, 195° HFoV
- 12x ultrasonic sensors

Demo Vehicle

Business Area

Autonomous Mobility

Digital Access Solution CoSmA

Smart Device based vehicle access using Ultra-Wideband

SOP: 2021

Benefits & Features

Convenient car access, meeting user's digital lifestyles

- Digital User Experience with same convenience as the classical car key
- Multiple smart devices (e.g., smartphone, watch)
- Hands-free access
- Remote Keyless Entry (RKE)
- Enhanced anti-theft protection
- Tailgate "auto-drop" intention detection

End to End Digital Key Management

- Digital Key storage and management via apple wallet
- Key sharing & revocation

A proven partner

- Continental is one of the first to introduce an UWB based Hands-free access system in the market in 2021

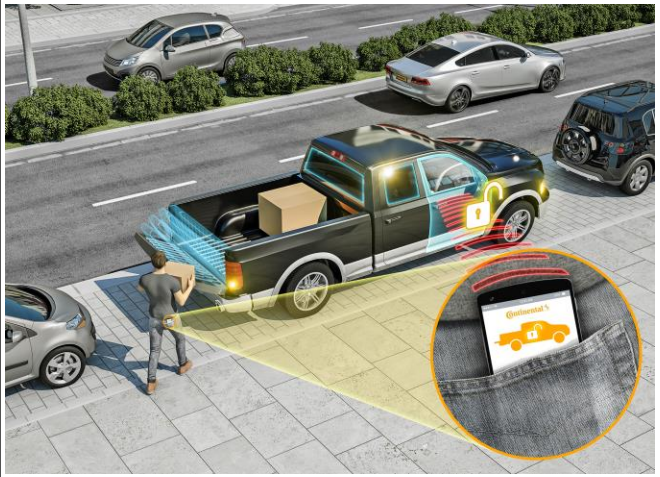
Functions

- Realtime precise positioning calculation (inside / outside vehicle fulfilling Thatcham)
- Full system solution expertise including CCC compliance
- Continental KeyCore2 Virtual key management backend offers fully secured integrated end to end key solution

Technical Information

- UWB/Bluetooth® Low Energy Combo transceivers inside and outside of the vehicle
- Advanced detection algorithm
- Zone & localization output via graphical user interface (GUI) shown via tablet

Picture



Business Area

Architecture and Networking,
Product Line Access Solutions

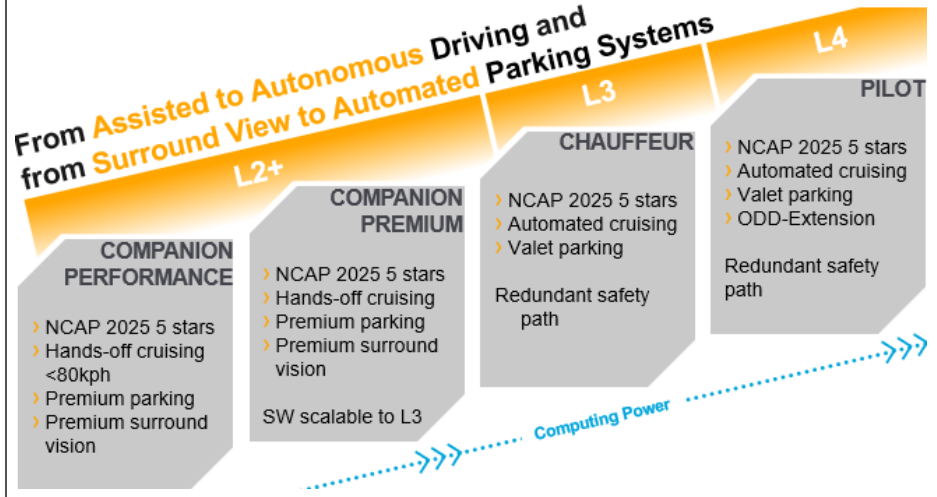
Companion Premium Full Automated Driving Stack

Benefits & Features

- Continental with 20+ years full-stack supplier of driving systems including software and sensor products
- Ambarella with 18+ years of power efficient vision processing & 25+ years of Autonomous Driving (AD) algorithms
- Joining forces to provide full-stack solution scalable from low-end to premium ADAS and AD applications for passenger cars and for trucks

- Robust Autonomous Driving experience from CV3-AD's higher performance
- Battery, weight, & packaging savings for EV due to simplified cooling methods and smaller ECU or HPC footprint

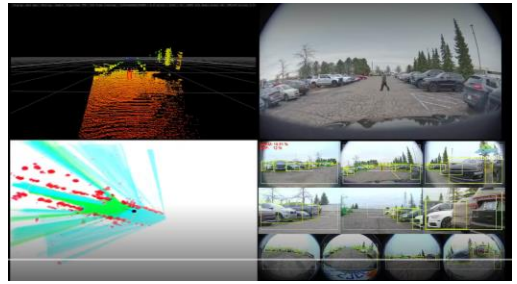
Functions



Technical information

- Scalability: Ambarella with most scalable SoC platform vs. competition
- High performance and power efficiency compared to SoC competitors in the AD market
- Full Continental AD scalable system availability based on any combination of Continental sensor hardware & processing, perception, and driving functions

Exhibit + Demo Vehicle



Business Area

Autonomous Mobility

Autonomous Technology Truck

Benefits & Features

- Continental's Class 8 Development Truck is where cross domain concepts are tested in the real-world
- Continental Sensor Array (CoSAr), with its integrated and pre-calibrated camera, radar, and LiDAR sensors, makes it easy to add sensors for automated driving, scalable up to L4
- Continental Smartphone Access for Commercial Vehicles (CoSmA) can automatically and securely authorize any driver to unlock doors and drive, while also providing vehicle advance wakeup functions upon approach

Functions

- Realtime camera and LiDAR visualizations from CoSAr bar
- Smartphone-based key enables driver proximity monitoring and automated access management

Technical Information

- HRL131 – High resolution, ultra-long range MEMS-based scanning LiDAR
- 2x FSC231 – Forward facing satellite camera
- Ultra-wideband digital key for fleets provides an extremely simple access solution, using only the minimum number of tranceivers

Picture

Business Area

Smart Mobility & Autonomous Mobility