



Kaspersky  
integrates  
KasperskyOS-  
powered solution in  
AVL SFR electronic  
control unit

# Safe & Secure electronic control units

kaspersky

 KasperskyOS

AVL 

# Cybersecurity done right

“When it comes to cars with autonomous driving features, the safety of drivers, passengers and pedestrians is top priority. The integrated KasperskyOS security module blocks attempts to intercept system control via undeclared code functions or malicious third-party applications. Partnering with AVL SFR has been a pleasure, and we’re proud to have collaborated on creating a system that ensures both functional and cyber security.”

**Grigory Sizov,**  
Head of KasperskyOS Business Development

“The complex functions performed by high-performance controllers like Ajunic must be protected at the operating system level. The integration with KasperskyOS ensures a proper level of trust in the security, availability, confidentiality and reliability of control channels.”

**Dirk Geyer,**  
Head of Segment Safety & Security,  
AVL Software & Functions GmbH

Modern vehicles are essentially smart computers on wheels. They help drivers park, maintain a safe distance in traffic, plan routes based on road congestion, communicate with road infrastructure, and so much more.

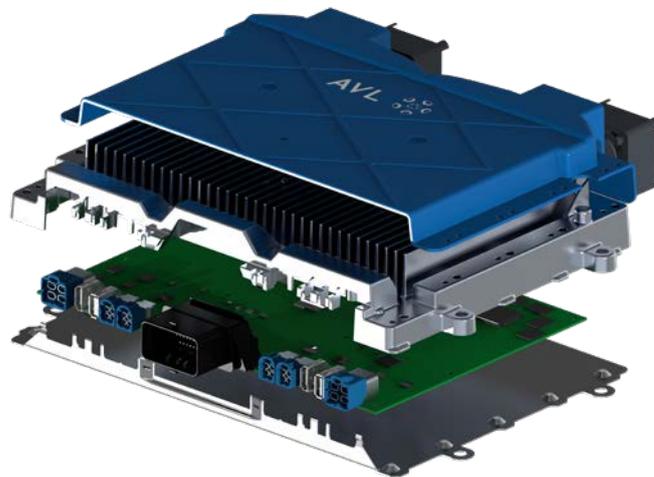
But for a car to be truly smart, its digital systems need a good “brain,” or electronic control unit (ECU). The safety and comfort of passengers and everyone else on the road depends on how reliable these ECUs are.

To truly protect complex automotive systems, security needs to be considered throughout the whole lifecycle of a vehicle. Protecting these systems against cyberattacks from day one is more reliable than patching vulnerabilities once they are discovered in off-the-shelf software.

## KasperskyOS and AVL SFR integration

In summer 2020, Kaspersky integrated [Kaspersky Automotive Adaptive Platform](#), a secure automotive platform powered by KasperskyOS, in a high-performance control unit called Ajunic, which, for example, can be used for advanced driver assistance systems (ADAS). The units are developed by AVL Software and Functions GmbH (AVL SFR), a German developer and supplier of software, systems and electronic components for smart transport.

Ajunic is a flexible, customizable platform for both prototyping and batch production. It is lauded for its high performance and broad range of options for connecting various devices (camera, lidar, sensors) to the secure high-performance controller. This ECU includes powerful microcontrollers equipped with eight-core ARM processors and accelerators for processing video streams and neural network operation.



Ajunic ECU by AVL SFR

Ajunic is designed in accordance with the international standards of Functional Safety (ISO 26262), Cybersecurity (ISO 21434), and Information Security (ISO 27001), as well as the AUTOSAR international automotive consortium Adaptive Platform requirements. According to the ASIL (Automotive Safety Integrity Level) automobile risk classification system, Ajunic is intended for certification at the highest level of functional safety (ASIL D). It is built using only qualified automotive components and is resistant to external factors, including temperature changes or vehicle vibration on the road.

The KasperskyOS technologies integrated in Ajunic protect interactions between ADAS components and prevent cybercriminals from interfering with their operation. By keeping processes fully isolated, the failure or compromise of one process will not affect any others. The flexible Kaspersky Security System blocks potentially dangerous actions by default even before they are performed.

The Ajunic platform with integrated Kaspersky Automotive Adaptive Platform software can be used in various scenarios. It can operate as a stand-alone ADAS module and independent source of data about the environment (Dynamic Ground Truth) thanks to its ability to process data from cameras and other sensors, internal/external storage, data transmission inside the vehicle via CAN and Ethernet, various buses (CSI-2/RGMII/SPI) and power supply management.

## **Automotive SDK**

In 2020, Kaspersky joined the AUTOSAR consortium and started developing its own solution, Kaspersky Automotive Adaptive Platform. Applications on this platform comply with the AUTOSAR Adaptive Platform standard. It's used as a base for creating secure and reliable solutions for various electronic units in smart cars, including telecommunications, driver assistance systems and autopilot systems (HAD/ADAS), digital cockpit electronics assemblies, etc.

Kaspersky Automotive Adaptive Platform is designed in accordance with leading industry standards, including ISO 26262 and ASPICE.



**KasperskyOS**

**Learn more on [os.kaspersky.com](https://os.kaspersky.com)**



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