

CAN Newsletter Online

AUTOMOTIVE MCUS

With up to 20 CAN FD interfaces

ST Microelectronics launched the scalable Stellar SR6 P and SR6 G micro-controller unit (MCU) series for modern road-car projects.



Stellar SR6 MCUs address safety critical applications up to ISO 26262 ASIL-D (Source: ST Microelectronics)

The MCUs, targeting production in 2024, are suited to domain and zone controllers that simplify vehicle wiring, enable migration to software-defined platforms, and increase system reliability, said the company. The hardware-based virtualization enables running of multiple independent applications on one physical MCU. Based on six Arm Cortex-R52 cores, the units address safety critical applications up to ISO 26262 ASIL-D (automotive safety integrity level). Over-the-air (OTA) reprogramming with sizeable memory savings is possible.

Stellar SR6 P series is designed for drivetrain and electrification systems, delivering real-time performance and determinism. Beside others, the units provide eleven CAN and one time-triggered CAN (TTCAN) interfaces. CAN FD compliant with ISO 11898:2016 is supported. Stellar SR6 G series features accelerators for secure data routing via CAN, LIN, and Ethernet networks. The low-power modes support low quiescent currents and a monitoring sub-system. 19 CAN and one TTCAN interfaces support CAN FD. Further, the MCUs include three Arm Cortex-M4 cores with a floating-point arithmetic unit and DSP (digital signal processing) extensions. A hardware security module protects connectivity to in-vehicle networks (CAN FD, [LIN](#), Ethernet). Dedicated encryption accelerators for Macsec (media access control security protocol), IPsec (IP security protocol suite), and CAN authentication are available.

Recently, ST Microelectronics announced its collaboration with Arrival, a global company creating electric vehicles (EVs). The goal is to provide semiconductor technologies and products including secure automotive micro-controllers for Arrival's modular ECU (electronic control unit) platform, as well as power- and battery-management components for vehicle electrification.

[of](#)