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Mixed Signals ASICs

Automotive electronic module flexibility is increasingly becoming a key factor to remain competitive in the automotive market allowing the reusage of same product for multiple applications through different SW variants.

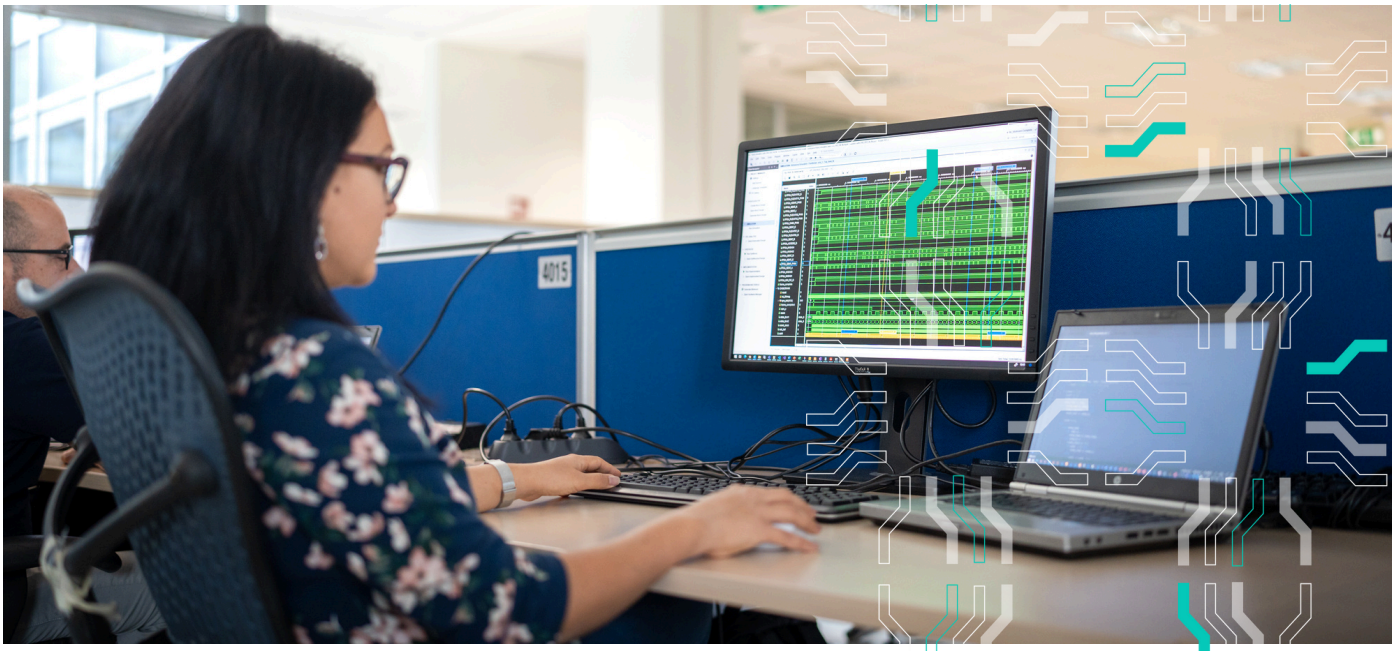
The ASICs have been developed for the automotive market, mainly engine control modules.

Case study 1 – Wide range high accuracy resisting sensor measurement, mixed signal ASIC

This ASIC enables broad usage of temperature sensors (both thermistors and RTD) enlarging portfolio of possible automotive temperature sensors.

Thanks to a unique architecture designed in the chip, sensor resistance can be measured in the range of 20 – 400k ohm with accuracy up to 2%.

All the device features, including the capability to configure digital inputs pass through are completely manageable via software.



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Case study 2 – Flexible Solenoid Valve Driver, mixed signal ASIC
This ASIC enables broad usage of solenoid gasoline, diesel and Port Fuel injectors.
Thanks to its extreme flexibility, SW configuration and programmability, it can drive a wide range of different injectors and solenoid valves, enlarging portfolio of possible actuators and increasing controller flexibility, reusing same HW for different purposes. The device includes enhanced DC-DC converter control for the optimization of external components, such as inductors and power FET.

Both ASICs are currently in use on mass production controllers for passenger cars.