

SDV CONCEPT from SECOR fundamentally changes the development and use of chips in vehicles

Gräfelfing, February 17, 2025 - At Embedded World 2025, SECOR is presenting its **SDV CONCEPT (Software Defined Vehicle)**, which could fundamentally change the automotive industry. The startup, which is backed by concentrated vehicle and IT expertise, has developed a standardized semiconductor that can be configured by software and is therefore universally applicable. This means that the chip can be used for various functions in the car - for the window regulator as well as for the engine control.

Only the software determines how the chip is used. This can also be installed over-the-air at a later date to enable new functions. If the performance and working memory in the delivered vehicle are no longer sufficient, the chip can also be easily replaced with a more powerful one thanks to pin compatibility. For manufacturers, SECOR's SDV CONCEPT means cost savings, shorter development times and greater resilience in times of crisis.

More resilience for car manufacturers: with patented SDV CONCEPT

Until now, chips in the automotive industry have been developed individually for a customer and for a specific function. This can lead to problems in production. If a particular semiconductor is not available, the entire production process comes to a standstill. Delivery bottlenecks following the Covid pandemic or the blockade of the Suez Canal by a container ship that was stuck in the middle have shown just how quickly this can happen.

With the patent-pending SDV CONCEPT, SECOR provides OEMs with a solution to be prepared for such crises in the future. As SECOR's chips are standardized and only the software decides which function they are used for, manufacturers reduce their complexity and are much more flexible in production and development.

Rethinking the E/E architecture with a zonal concept

What's more, SECOR is completely rethinking the E/E architecture. Instead of working with a huge number of different Electronic Control Units (ECU) for the various functions in the vehicle - as is usually the case - SECOR is relying on a zonal concept. This means that a central computer communicates with just a few ECUs, which are distributed across different zones in the car and in which the standard chips are installed. "Instead of 150 ECUs as before, you then only have five to ten," says Klaus Jungbauer, Managing Director of SECOR.

More flexibility thanks to modular and standardized software

Vehicle manufacturers are therefore not only more flexible, but also require fewer semiconductors overall. Modular and standardized software packages also speed up the development process up to the start of series production (SOP). And if the OEM notices before the SOP that the performance of the originally planned chip is not sufficient, it can simply be replaced at short notice thanks to pin compatibility. "You can imagine it like a 486 PC from IBM, which you may remember from the past. With these, you could also manually expand the RAM if necessary," explains Managing Director Klaus Jungbauer. This also promotes sustainability, as the vehicle electronics remain up to date even after sales, either through over-the-air software

updates or by simply replacing the chips. The corresponding cars can therefore be used for longer.

More cost-effective, faster and more resilient for the automotive industry

SECOR will have the chips manufactured in several factories on different continents. This will ensure a continuous supply of semiconductors - regardless of geopolitical developments. "With our SECOR SDV CONCEPT, we are making the development and production of vehicles more cost-effective, faster and more resilient," summarizes Jungbauer. "This allows us to be the game changer for the automotive industry."

Premiere presentation at embedded world 2025

SECOR will be presenting its technology to the public for the first time at embedded world 2025 (Hall 2, Stand 637g) in Nuremberg. The various possible applications of the chips will be demonstrated using the example of a vehicle door. SECOR will be represented at the trade fair by its Chips & Library division. The SECOR Group also includes the business unit SECOR Supply Chain Transparency GmbH (www.secor-sct.com), which offers companies from the automotive industry software as a service that can be used to check how resilient their current production is. If necessary, measures can be implemented, such as component allocation with a standardized resilience score.

SECOR is also working together with a development partner. The aim is to jointly develop a SECOR SDV CONCEPT CAR based on the SECOR SDV CONCEPT, which is to be presented in the second half of the year.

About SECOR Chips & Library GmbH

SECOR Chips & Library GmbH (www.secor-cl.com) is part of the SECOR Group GmbH (www.secor.group). The company is engaged in the development, manufacture, trade and distribution of computers, computer systems, hardware and software of all kinds in Germany and abroad. Its particular focus is on the automotive industry. Among other things, SECOR Chips & Library GmbH produces chips and software tailored to the specific needs of automotive companies.

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