



NEW ELECTRONICS PLATFORM

“German engineering meets Silicon Valley” – a fitting slogan to describe the partnership that Audi has been nurturing with the Nvidia Corporation since 2005. This partnership quickly moved the brand with the four rings into a leading position in automotive infotainment. Nvidia technology enabled such innovations as the world’s first integration of Google Earth navigation and the elegant graphics featured in many models.

In 2012, Audi will become the first carmaker to use Nvidia’s Tegra processor, currently the most advanced mobile processor in the world. Designed as a multicore processor, it generates extremely high-resolution graphics in breathtaking speed while also accelerating the playback of many current audio and video formats. Yet the Tegra chip consumes significantly less energy than previous multimedia processors – so it blends in perfectly with Audi’s philosophy of efficiency.

The Tegra chip equips Audi’s MMI systems for the future. It can display models of entire cities in three-dimensional renderings – drivers see a photographically realistic representation of the road along which they are currently driving. It is also a perfect partner for the electric drives of the future and their charge and energy management displays.

Progress in communication technology is moving at a much faster pace than the product cycles in the automobile industry. Audi’s response to this challenge is the modular infotainment platform (MIP), which will debut in 2012. Its central element is a modular computer powered by the MMX board in the MMI system (MMX: Multi-Media eXtension), at the core of which is the Tegra chip from Nvidia. The modular approach enables the hardware to be easily upgraded in short cycles, keeping the system current at all times.

When it established e.solutions GmbH in mid-2009, Audi separated the development of hardware from the development of software. The company is a joint venture of Audi Electronics Venture GmbH, a wholly-owned subsidiary of AUDI AG, and Elektrobit Automotive GmbH, a division of the large Finnish IT company Elektrobit.

More than 100 specialists at the company’s facilities in Ingolstadt and Erlangen are working to develop new modular infotainment solutions. e.solutions GmbH buys function software, for example for navigation or telephony, on the global market and integrates it into its proprietary software suite, which features a consistent and modularly replaceable user interface. This software solution runs on the new Tegra chip from Nvidia.

The newly established company’s activities are focused for now on the deployment of the software in Audi models, but it will later be used throughout the Volkswagen Group. The software suite is also designed to run on other hardware platforms, however, so it could develop into an attractive proposition for the entire automotive industry.

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