CAN Newsletter Online

PROCESSOR

Integrated audio subsystem

STMicroelectronics has introduced the Accordo2 family, a series of processors for car radio and audio display applications. It comes with a CAN micro-controller subsystem.

(Photo: ST)

THE ACCORDO2 FAMILY (STA1095 AND VARIATIONS) offers a range of hardware and software integrations, providing the industry with fast time-to-market solutions. The series offers an integrated audio subsystem, including media decoding, audio routing, sound processing, and analog audio inputs and outputs, as well as an independent secure CAN micro-controller subsystem. Until now, car infotainment manufacturers had to use multiple devices to achieve the same result that a single Accordo2 device delivers today.

In addition to minimizing the customer's bill of materials, the series facilitates faster product development as it comes with a complete turnkey software solution that includes middleware, media players, audio codecs, and sound-effect processing. Moreover, the various members of the family offer application scalability to design a basic car radio all the way up to connected car radio and audio display applications, while reducing engineering costs by reusing the same hardware and software architecture for all use-case scenarios.

"The Accordo2 family offers a platform for customers to develop their own unique products with the lowest bill of materials and in the shortest time," said Antonio Radaelli, Infotainment Business Unit Director, STMicroelectronics. "The hardware and software integration that we have built into Accordo2 unleashes unprecedented levels of creativity for customers because they can cut-and-paste our reference design and then modify it quickly to create their own branded products."

The devices include a 32-bit ARM Cortex R4 core, running at up to 600 MHz to handle media management, connectivity, and audio-decoding functions. The flagship product (STA1095) incorporates an additional ARM Cortex M3 controller dedicated to real-time CAN/vehicle interface processing, as well as a digital signal processor that supports sound-enhancing algorithms as well as echo noise cancellation for Bluetooth hands-free phone calls.

All devices are housed in LFBGA 361-ball (16 mm x 16 mm x 1,7 mm with 0,8 mm pitch) packages. Samples are available now, with volume production scheduled for Q2 2015.