Freescale and Philips collaborate to accelerate availability of compatible FlexRay products

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Aiding the drive toward a common standard for next-generation in-vehicle networks, Freescale Semiconductor and Royal Philips Electronics have agreed to share their FlexRay technologies.
This agreement will support the development, availability and compatibility of semiconductor-based FlexRay products from Philips and Freescale and bring the automotive industry another step closer to introducing FlexRay networks into the vehicle. FlexRay will enable next-generation, high-bandwidth control applications, including powertrain and body systems – ultimately targeting by-wire solutions for active chassis management, braking systems and steering.

“Combining the capabilities of Philips and Freescale will enable us to drive forward the introduction of highly reliable FlexRay networks,” said Harry Inia, general manager Automotive Business Line and vice president Philips Semiconductors. “This is a major step toward introducing advanced control applications requiring high bandwidth into vehicles, allowing for more flexibility and design freedom for the car manufacturer, as well as greater safety, less fuel consumption and more convenience options for the driver.”

Philips and Freescale – founding members of the FlexRay Consortium – have extensive experience in developing silicon for FlexRay and other automotive communications protocols, such as controller area network (CAN) and local interconnect network (LIN). The companies will now

combine their in-vehicle networking expertise and use a common FlexRay protocol engine design and a common System C-based reference software model to ensure interoperability of their FlexRay devices.

This cooperation reflects the drive from both companies to offer FlexRay developers the first full solutions, from network simulation tools to silicon products, compliant with version 2.1 of the FlexRay protocol specification.

“Freescale and Philips today have the only commercially available standalone FlexRay devices in the automotive industry,” said Paul Grimme, senior vice president and general manager of Freescale's automotive business. “This agreement brings together both companies’ years of experience in providing silicon products based on FlexRay standards and increases customer choice. We intend to translate the results of our collaboration into products this year, when we embed the 2.1-compliant hardware implementation onto our existing microcontroller families for automotive.”

Components from Philips and Freescale are already used extensively in the development of FlexRay solutions throughout the automotive industry. Freescale intends to include the FlexRay protocol engine design on products throughout its automotive portfolio, including the S12X, 56F8xxx, MPC55xx and MAC7x00 families. Philips intends to integrate the FlexRay protocol engine design throughout its ARM®-based automotive microcontroller portfolio, including the ARM7™ SJA20xx and the ARM9™ SJA25xx families.

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