

NEC Electronics Introduces New Motor Control Microcontrollers

DUESSELDORF, Germany and KAWASAKI, Japan, February 8, 2006 — NEC Electronics Corporation today announced the extension of its lineup of 8-bit and 32-bit All Flash™ microcontrollers (MCUs), with four new devices optimized for motor control applications. The 32-bit V850ES/IE2 series and 8-bit UPD78F0711/ UPD78F0712 are designed to help reduce vibration and noise in household appliances such as air conditioners, refrigerators, and washing machines that utilize inverter controllers.

The 32-bit V850ES/IE2 devices are based on NEC Electronics' high performance V850ES™ CPU, delivering speeds up to 20 megahertz (MHz), delivering precise motor control functions to help reduce vibration and noise. This results in reduced power consumption, lower electricity costs for consumers, and minimized environmental impact. The series includes power on clear (POC) reset circuits, and low voltage indicators (LVI). Devices are available in configurations of 64 and 128 kilobytes (KB) of embedded flash memory.

The 8-bit UPD78F0711 and UPD78F0712 devices utilize NEC Electronics' efficient and economical 78K0™ CPU core, and are available in configurations of 8KB and 16KB of flash memory, based on SuperFlash® technology licensed from Silicon Storage Technology, Inc. Pin counts and pricing for UPD78F0711 and UPD78F0712 devices have been significantly reduced compared to the NEC Electronics' previous generation of UPD78F0714 device.

All of the new 8-bit and 32-bit MCUs include hardware optimized for inverter control, such as multi-function timers, high speed A/D converters, and overcurrent protection circuits. In addition to the standard "120-degree" control methods, the devices also offer "180-degree" control, which is gaining popularity in recent years because of its greater precision. Separation of system control functions and optimization of MCU design specifically for motor control enhances performance, contributing to the development of household appliances that consume less power and help lower utility bills.

The inclusion of embedded flash memory in all four products allows system developers to program software even after production reduces development times, and also makes it possible to adjust software in the event of changes in product specifications. Moreover, the devices are compatible with legacy products, enabling efficient use/reuse of existing legacy software resources. Software is compatible with previous similar mask ROM devices, making it possible to develop systems using existing software resources.

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Motor control devices are becoming increasingly important as home appliance manufacturers compete to deliver low-cost products that help keep electricity costs low for consumers. NEC Electronics' 8- and 32-bit solutions in this arena are designed to help system developers meet this need and the company plans to continue expanding its motor control offerings in the future.

For more information about NEC Electronics' motor control microcontrollers, please visit <http://www.eu.necel.com/motorcontrol>

Availability

Samples of the μ PD78F0711/712 and V850ES/IE2 microcontrollers are available now. All four devices are expected to enter volume production in June 2006, reaching a combined total of approximately 800,000 units per month by fiscal year 2007. Availability is subject to change without notice.

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About NEC Electronics

NEC Electronics Corporation (TSE: 6723) specializes in semiconductor products encompassing advanced technology solutions for the high-end computing and broadband networking markets, system solutions for the mobile handsets, PC peripherals, automotive and digital consumer markets, and multi-market solutions for a wide range of customer applications. NEC Electronics Corporation has 26 subsidiaries worldwide including NEC Electronics America, Inc. (www.am.necel.com) and NEC Electronics (Europe) GmbH (www.eu.necel.com). For additional information about NEC Electronics worldwide, visit www.necel.com.

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