

NEC Electronics America Announces Sample Shipments of Four New Single-Chip IO-Link Solutions

Provides Extensive Product Range with a Choice of Memory Variants

SANTA CLARA, Calif., March 12, 2010—NEC Electronics America, Inc. today announced the availability of four new single-chip IO-Link solutions for IO-Link slave applications. The new IO-Link solutions combine NEC Electronics' All Flash™ 78K0R 16-bit microcontroller (MCU) and an IO-Link transceiver with an integrated IO-Link slave protocol stack in a single package. The MCUs come in four flash memory sizes: the μ PD78F8040 MCU with 32 kilobytes (KB), μ PD78F8041 MCU with 64 KB, μ PD78F8042 MCU with 96 KB, and μ PD78F8043 MCU with 128 KB of flash memory.

IO-Link is an industrial standard ideal for industrial automation systems that enables intelligent communication between sensors/actuators and the host devices at the control level. By adopting NEC Electronics' new products, IO-Link system designers can easily implement communications and control of sensors/actuators to realize IO-Link slave applications. One key advantage of using the IO-Link slave protocol stack offered with NEC Electronics' solutions is that minor upgrades can be included if the IO-Link specification is enhanced, significantly reducing development time and effort. Alternatively, designers can opt to develop and maintain their own software stacks. The NEC Electronics IO-Link MCU/transceiver solution integrates significant analog components that enable system designers to eliminate additional external components and develop a complete IO-Link slave product at low cost.

NEC Electronics' IO-Link MCU/transceiver solution comes in an 8 millimeter (mm) x 8mm 56-pin QFN package making it easy to switch to a larger memory if more software is needed. The different memory sizes allow developers to use a common circuit-board layout for multiple designs even though different amounts of software may be required. For example, a 32KB device can easily be replaced by a 128KB device without having to redesign the PCB.

The IO-Link market is now beginning to show real promise, and NEC Electronics is working with several companies that are adopting IO-Link solutions, some of whom are already engaged in development projects. NEC Electronics is well placed to enable system designers to quickly and easily achieve differentiated designs using NEC Electronics' single-chip IO-Link solution.

Pricing and Availability

Samples of NEC Electronics' new single-chip IO-Link solutions are available now, and distribution suggested resale pricing begins at \$6.70 in volumes of 10,000 for the 32KB

flash version. Mass production of the new devices is slated to begin in April 2010. (Pricing and availability are subject to change without notice.)

More information about NEC Electronics' solutions for the industrial automation market can be found at <http://www.am.necel.com/iolink>.

About NEC Electronics America, Inc.

NEC Electronics America, Inc., headquartered in Santa Clara, California, is a wholly owned subsidiary of NEC Electronics Corporation (TSE: 6723), a leading provider of semiconductor products encompassing advanced technology solutions for the broadband and communications markets; system solutions for the mobile, PC, automotive and digital consumer markets; and multi-market solutions for a wide range of consumer applications. NEC Electronics America offers local manufacturing in Roseville, California, and the global manufacturing capabilities of its parent company. In the Americas, NEC Electronics America markets and sells industrial-type active-matrix LCD modules from NEC LCD Technologies, Ltd., a global leader in innovative display technologies. More information about the products offered by NEC Electronics America can be found at <http://www.am.necel.com>.

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