# **Press Release**

No.: REN0544(A)

# **Renesas Electronics Europe and port GmbH Launch PROFINET, Ethernet/IP and CANopen Multi-Protocol Solutions for the Renesas RX64M 32-Bit Microcontroller Group**

**Düsseldorf / Halle a.d. Saale, 13 October 2014** – ***Renesas Electronics Europe***, a premier provider of advanced semiconductor solutions, and its Alliance Partner ***port GmbH*** today announced efficient multi-protocol connectivity solutions for PROFINET (CCA / CCB RT1), Ethernet/IP and CANopen stacks, as well as the associated design tools for the RX64M. The RX64M is Renesas’ 32-bit high-performance microcontroller group. Working with its Alliance Partner port GmbH, Renesas has ported the widely adopted PROFINET, Ethernet/IP and CANopen software stack to its latest RX controller.

The RX64M provides a universal platform for implementing leading field bus and communication technologies. It offers generous RAM of up to 512 KB, up to 4 MB of embedded flash, up to three controller area network (CAN) interface channels and two integrated Ethernet MACs. The new multi-protocol solution now expands the stacks available for the RX64M group with the addition of CANopen, PROFINET (CCA/CCB RT1) and Ethernet/IP. Solutions for EtherCAT and POWERLINK are also available as an on-demand option. The solution ensures that the Renesas RX64M product group is tailored to applications in the manufacturing, automation and process industries. The multi-protocol approach enables the RX64M group to cover all the major global communication technologies.

The new RX64M group comprises 112 products that all include high-speed flash memory clocked at 120 MHz. They are based on the new RXv2 CPU core, which is a trendsetter in its class with its 4.25 CoreMark/MHz performance. Along with its high level of real-time processing power, the RX64M also includes up to 4 MB flash and 512 KB RAM, which are required for today’s industrial electronic and network devices. Using these new MCUs, system developers can now quickly develop extremely powerful industrial applications with low power consumption and a wide range of communication functions.

“The evolution and connectivity of industrial equipment in manufacturing and building automation have prompted significant growth in products that include comprehensive communications technologies,” explains Bernd Westhoff, RX Product Manager at Renesas Electronics Europe. “Our RX64M products are a response to this trend, as well as to the need for a large memory capacity to support Ethernet, CAN, USB and many other communications functions. Together with our Alliance Partner, port GmbH, we can provide customers with the necessary software stacks for CANopen, PROFINET and Ethernet/IP implementations, as well as the peace of mind of professional support.”

The 32-bit RX64M MCU components have a maximum clock speed of 120 MHz. Combined with the extended CPU core architecture, they produce total computing power of over 240 DMIPS when executing code from integrated zero-wait state flash memory. The MCUs also provide significantly better processing performance for computing operations, due to their integrated 32-bit multiplier, a single-precision floating-point unit (FPU), and an extended 32-bit barrel shifter.

The stacks and drivers provided by port GmbH meet stringent and highly efficient coding and documentation standards, which were developed by port itself. These standards ensure that CANopen only needs a very small amount of memory while enabling high execution speeds and easy-to-read code. The company also offers active support for device certification (PNO, EPSG, CiA etc.). Customers can ensure they always receive stack and driver versions that comply with the most recent standards.

## Design tools from port

The design tools from port GmbH – CANopen, EtherCAT, PROFINET, and POWERLINK – help engineers develop their applications quickly and cost-effectively. They automatically generate an object dictionary and an initialisation function in C code, an electronic datasheet, and project documentation. In addition, the tools also simplify the configuration of the libraries and the driver packages. A trial version can be downloaded free of charge at [www.port.de](http://www.port.de).

The stacks and drivers for PROFINET, CANopen, and Ethernet/IP are available with immediate effect. Solutions for POWERLINK and EtherCAT are also available as an on-demand option. Further information is available from Renesas Electronics Europe sales offices and from port GmbH.

**About port**

port is known as one of the leading providers for communication technologies. Starting with CANopen in 1990 port the portfolio now contains all major protocol of the Industrial Ethernet world such as PROFINET, EtherNet/IP, EtherCAT and POWERLINKl. Besides the standard activities like licensing protocol stacks, training and implementation port also offers customer specific engineering services and manufacturing services for electronic devices and systems.

**About Renesas Electronics Europe**

Renesas Electronics is the world's number one supplier of microcontrollers and a premier supplier of advanced semiconductor solutions, including system-on-chip and a wide range of discrete analogue and power devices. Established in 2010, Renesas Electronics combines the collective semiconductor expertise of Hitachi, Mitsubishi Electric and NEC Electronics, encapsulating more than 200 years’ experience.

Renesas’ products are the result of decades of research and investment into semiconductor technology and customer solutions. Today, they provide pioneering platforms for the advancement of the Smart Society, embedding intelligence, connectivity, safety and security in solutions for cars, homes, buildings and factories. In Europe, Renesas complements its cutting-edge technology with resources that foster customer proximity and span the entire product lifecycle. These include the European Technology Centre, which designs innovative solutions specifically for Europe, and the European Quality Centre in Düsseldorf, which provides technical support to customers throughout the region. Renesas also operates an effective ecosystem, comprising the industry's largest local support network and an extensive network of over 800 hardware and software alliance partners.

Headquartered in Japan, Renesas Electronics has subsidiaries in 20 countries worldwide. More information is available at [www.renesas.eu](http://www.renesas.eu)

Renesas Electronics Europe on <http://twitter.com/Renesas_Europe>,

<http://facebook.com/RenesasEurope> and <http://youtube.com/RenesasPresents>

**Remarks**

All product names and service names that appear in this press release are all trademarks or registered trademarks of their respective owners.

**Company contact for reader and customer inquiries:**

Dietmar R. Franke

Port GmbH / Regensburgerstarße 7b / 06132 Halle a.d. Saale / Germany

Tel : +49-345-777550  
E-Mail: [drf@port.de](mailto:drf@port.de)

Web: www.port.de