**News Release**

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**Renesas Electronics Expands RX24T and RX24U Microcontroller Lineup for High-Temperature-Tolerant Motor Control Applications**

*New 32-Bit MCUs Support Circuit Boards in High-Temperature Locations and Compact Circuit Board Design in Space-Constrained Home Appliances and Industrial Machinery*

Düsseldorf, January 31, 2019 – Renesas Electronics Corporation (TSE: 6723), a premier supplier of advanced semiconductor solutions, today announced the expansion of its RX24T and RX24U Groups of 32-bit microcontrollers (MCUs) to include new high-temperature-tolerant models for motor-control applications that require an expanded operating temperature range. The new RX24T G Version and RX24U G Version support operating temperatures ranging from −40°C to +105°C, while maintaining the high speed, high functionality, and energy efficiency of the RX24T and RX24U MCUs.

“Through the IoT, home appliances and industrial machinery are attaining greater functionality based on network connectivity and user interface enhancements and effective use of the limited interior space as well as the higher temperature environments are becoming major issues,” said **Akira Denda, Vice President of Renesas’ Industrial Automation Business Division, Industrial Solution Business Unit**. “The newest members of the RX24T and RX24U Groups provide the excellent function and performance that RX users have come to expect from their MCUs while addressing the heat tolerance requirements to support safe and flexible equipment design.”

As device form factors shrink, the heat challenge is growing for motor-control applications. In industrial machinery and office equipment, as well as home appliances that handle hot air and heated water, circuit boards are increasingly being mounted in high-temperature locations. In the case of home appliances such as dishwashers or induction hotplates in particular, demand for designs with larger interior capacity or heating areas is increasing, which restricts the space available for circuit boards. The resulting shift toward circuit board design with a smaller surface area addresses the space constraints but also reduces the board’s capacity to disperse heat, causing the circuit board itself to become quite hot. To address these application needs, Renesas is adding new high-temperature-tolerant products to its MCU lineup that can operate in high-temperature spaces and on hot circuit boards. The new devices will provide greater flexibility for designers of products that operate in high-temperature environments, enabling the trend toward more compact devices to advance.

Software can be developed using the RX24T and RX24U CPU cards combined with the [24 V Motor Control Evaluation Kit](https://www.renesas.com/eu/en/products/software-tools/boards-and-kits/renesas-solution-starter-kits/24v-motor-control-evaluation-system-for-rx23t.html) which enables developers to create motor control applications in less time.

**About the RX24T and RX24U Groups**

The 32-bit RX24T and RX24U features a maximum operating frequency of 80 MHz. It is equipped with peripheral functions for motor control such as timers, A/D converter, and analog circuits that enable efficient control of two brushless DC motors by a single chip. Renesas has shipped 10 million units of the popular RX24T and RX24U Groups since their launch two years ago. With the addition of the G versions, all 32-bit RX MCU family products for motor-control applications now support operating temperature from −40°C to +105°C, extending the scalability of the RX Family and providing system manufacturers a rich and scalable lineup to choose from.

As part of its ongoing efforts to promote intelligent endpoints in the operational technology (OT) field, Renesas is helping to refine inverter control technology for motors and contributing to the realization of a “smart society.”

**Availability**

The RX24T G Version and RX24U G Version are available now in mass production. The RX24T covers 11 models with pin counts ranging from 64 to 100 pins and memory sizes from 128 KB to 512 KB. The RX24U covers six models with pin counts ranging from 100 to 144 pins and memory sizes from 256 KB to 512 KB. (Availability is subject to change without notice.)

For more information on the new RX24T G Version, visit:

<https://www.renesas.com/products/microcontrollers-microprocessors/rx/rx200/rx24t.html>.

For more information on the new RX24U G Version, visit:

<https://www.renesas.com/products/microcontrollers-microprocessors/rx/rx200/rx24u.html>.

For more information on how the RX24T 32-bit MCU simplifies highly efficient control and sensorless vector control of multiple motors with a single chip, visit:

<https://www.renesas.com/promotions/products-solutions/rx24t.html>

**About Renesas Electronics Corporation**

Renesas Electronics Corporation ([TSE: 6723](http://www.jpx.co.jp/english/)) delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live. A [global](https://www.renesas.com/en-hq/about/company/profile/global.html) leader in microcontrollers, analog, power, and SoC products, Renesas provides comprehensive solutions for a broad range of automotive, industrial, home electronics, office automation, and information communication technology applications that help shape a limitless future. Learn more at [renesas.com](http://www.renesas.com/).

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