**News Release**

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**Renesas Introduces Low-Power RL78/G15 MCU with**

**the Smallest 8-pin Package Option Available within the RL78 Family**

Lower-pin Package Device Further Expands the RL78 Family with

More Device Selection

**Düsseldorf, 2023 ―** Renesas Electronics Corporation (TSE: 6723), a premier supplier of advanced semiconductor solutions, today introduced a new general-purpose microcontroller (MCU) in the low-power RL78 Family, with small package sizes that target 8-bit MCU applications. The versatile RL78/G15 packs many peripheral functions and 4-8KB of code flash memory in package sizes ranging from 8 to 20 pins, with the smallest 8-pin device measuring only 3 x 3 mm. These features are designed to keep system size small and reduce the cost of end systems, such as industrial, consumer, sensor control, lighting, and inverter applications. In addition, the maximum operating ambient temperature of 125°C facilitates optimal thermal design, covering a wide temperature range and allowing the MCU to be used near heat-generating components such as inverter motors.

“The RL78 family is known for its excellent power efficiency and optimized peripheral functions,” **said Toshihiko Seki, Vice President of Renesas' MCU Device Solution Business Division “**To date, we have shipped over 7.1 billion units in the 11 years since its release, and we are currently shipping 100 million units per month. Renesas will continue to expand cost-effective and easy-to-use 8-bit and 16-bit MCUs that support customers’ requirements."

"We welcome the expansion of Renesas' RL78 family offerings to the extensive low-end MCU market,” **said** **Lotta Frimanson,** **Director of** **Product Management at IAR Systems.** As the only partner supporting the entire RL78 family of MCUs, IAR is committed to providing high-class development solutions that allow engineers worldwide to make the most out of the RL78 MCU’s capabilities and generate fast and compact code for efficient development."

**Key Features of the RL78/G15**

* RL78 16-bit CPU core operating at 16MHz
* Wide operating ambient temperature range of -40°C to 125°C
* Available in 8-pin to 20-pin packages, with the smallest 3 mm x 3mm WDFN package
* All pins can be used for general-purpose I/O, except VDD and VSS power supply pins
* Up to 8 KB of code flash memory, 1 KB of data flash, and 1 KB of SRAM
* Supports operating voltages from 2.4V to 5.5V
* Multiple serial interfaces supported: CSI, UART, Simple I2C, and multi-master I2C
* High-precision oscillator (±1.0%)
* Built-in comparator

**Development Environment**

Similar to other RL78 devices, engineers designing with the new RL78/G15 can use the GUI-based Smart Configurator to easily generate driver code for peripheral functions. Renesas also offers the Fast Prototyping Board (FPB) for evaluation, which comes with Arduino Uno and Pmod™ Type 6A interfaces with access to all pins. In addition, debugging and programming are possible using only a USB cable. Using an Arduino library that can run on the FPB, developers can gain access to development resources of the RL78 as well as the vast resources offered through the Arduino ecosystem, so that they can quickly turn their ideas into a working solution.

**Winning Combinations**

Renesas has developed the [100W USB Power Delivery (PD) Adaptor with Multi-Output](https://www.renesas.com/application/industrial/building-home-automation/100w-usb-power-delivery-pd-adaptor-multi-output?utm_campaign=mcu_rl78g15&utm_source=press_release&utm_medium=press_release&utm_content=rl78g15_wc) solution that can power a variety of systems. This highly efficient power supply includes a high-performance PFC (Power Factor Correction) controller, an AC/DC controller, and a high-performance DC-DC buck device, in addition to the RL78/G15 MCU. This solution enables an all-in-one mobile charger for users to easily charge their notebook, tablet, or mobile phone without worrying about incompatibility, making it an ideal combination for quick chargers, mobile devices, or adapters. This full system solution is part of Renesas’ Winning Combinations, which optimally combine mutually compatible Renesas devices that work together seamlessly to reduce user design risk and shorten time to market. Renesas offers more than 300 other Winning Combinations with a wide range of products from its portfolio. More information is available at: [https://www.renesas.com/win](https://www.renesas.com/winning-combinations?utm_campaign=mcu_rl78g15&utm_source=press_release&utm_medium=press_release&utm_content=wc_lp).

**Availability**The RL78/G15 is available today in volume production. More information on the new product and supporting tools is available at [https://www.renesas.com/rl78g15](https://www.renesas.com/products/microcontrollers-microprocessors/rl78-low-power-8-16-bit-mcus/rl78g15-compact-low-pin-count-microcontrollers-rich-peripheral-functions-general-purpose-applications?utm_campaign=mcu_rl78g15&utm_source=press_release&utm_medium=press_release&utm_content=rl78g15_lp).

**About Renesas Electronics Corporation**

Renesas Electronics Corporation ([TSE: 6723](http://www.jpx.co.jp/english/)) empowers a safer, smarter and more sustainable future where technology helps make our lives easier. A leading [global](https://www.renesas.com/about/company/profile/global.html) provider of microcontrollers, Renesas combines our expertise in embedded processing, analog, power and connectivity to deliver complete semiconductor solutions. These Winning Combinations accelerate time to market for automotive, industrial, infrastructure and IoT applications, enabling billions of connected, intelligent devices that enhance the way people work and live. Learn more at [renesas.com](http://www.renesas.com/). Follow us on [LinkedIn](https://www.linkedin.com/company/renesas/), [Facebook](https://www.facebook.com/RenesasElectronics/), [Twitter](https://twitter.com/renesasglobal), [YouTube](https://www.youtube.com/user/RenesasPresents) and [Instagram](https://www.instagram.com/renesas_global/).

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