

Renesas RX Testimonials from Partners and Customers.

Learn more from the experiences of our partners and customers using RX MCU in the following applications:

- [Wireless Connectivity](#)
- [Industrial Automation Functional Safety with Motor Control](#)

Wireless Connectivity



Takahiro Kiji

Senior Product Manager,
Global Marketing Center
[silex technology, Inc.](#)


Congratulations on the 10th Anniversary of RX Family.

Our core technology is wireless, and we provide both hardware and software solutions for wireless connectivity such as wireless LAN modules and networking access points. The first business collaboration with the RX team started when they showed their interests in our 'Absolutely Must Connect Technology' and adopted our wireless LAN module (SX-ULPGN-2000) for the [RX65N Cloud Kit](#).

The demo unit developed with the RX65N Cloud Kit could immediately connect to the cloud, we were able to focus on wireless connectivity development to prove our expertise on 'Absolutely Must Connect wireless even in places where signal reception is poor like exhibition venues. Now, we can prove our strength in wireless technology and the RX65N Cloud Kit's strong processing power through the demonstration of stable connectivity from sensors to the cloud. Visitors at our exhibition were impressed with the stress-free connectivity we had developed.

	<p>With the success story, we look forward to growing our wireless connectivity business with Renesas by enhancing our wireless LAN modules which is imperative to cloud connectivity and working together on RX23W collaboration.</p>
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 <p>Anchunath R Founder/CEO Neona Embedded Labz Pvt. Ltd</p>	<p>Neona is an Independent Design and Services Company with strong expertise in embedded design and service in IoT/Cloud, such as smart home and smart meter solution. In the last 6 months, we are using RX23W with BT5.0 in our Smart Home Automation and Smart Locker project. It's easy to use even for a beginner and it's easy and quick to develop the prototype and first level demo to my client. The Smart Configurator makes it much easier to create sample application for BT5.0, which are ready to build and test with just a simple click in the GUI. It's a breeze to do code modification, as we were able to customize the Cap Touch application for user interface without affecting the rest of the codes. And, the touch calibration works well with the RX Cap Touch Kit.</p> <p>The combination of Cap Touch with BT5.0 and the rest of the major peripheral functions (analog, digital, USB etc) embedded in a single chip is ideal for my development. And, the most beautiful aspect of RX23W is the size. A small BGA package containing many important features helps to save board space too. It would be ideal if it could include a Wi-Fi functionality in the future.</p>
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Industrial Automation Functional Safety with Motor Control



Andy Liu


General Manager,
Industrial Automation BG
[Delta Electronics, Inc.](http://www.deltacorp.com)

Congratulations to the 10th Anniversary of Renesas RX product series!

Delta has been deeply involved in the field of industrial automation for 25 years - having a complete automation product line, including AC motor drives, AC servo drives, programmable logic controllers, human-machine interfaces, machine vision, temperature controllers, etc. In addition to our strong R&D team, we are also grateful to our supplier partners in providing key components with excellent performance, allowing us to provide complete and reliable products and solutions to help customers emerge from the market competition.

Renesas RX product series with its related packages and solutions supporting motor control, industrial network, human-machine interface and functional safety (FuSa) helps Delta in the application of intelligent manufacturing, greatly improving productivity and safety needs. For example, the [RX66T](#) series is equipped with RXv3 third-generation CPU core, controlling up to four motors and other peripherals with a maximum operating frequency of 160 MHz and motor control peripheral modules. The IC built-in protection circuit and FuSa provide new added value for frequency conversion control applications.

	<p>In terms of functional safety, Renesas's FuSa provides a complete solution including SIL3 software packages, hardware evaluation boards, documents, safety certified compilers, and FSoE (Functional Safety over EtherCAT), etc., helping customers to pass the IEC61508 certification in the shortest time.</p> <p>Sending my best greetings to RX product series on their 10th Anniversary! Hope that RX will have more new products launching in the future. Let's continue to cooperate, and jointly create greater value for customers!</p>
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 <p>Taiki Taguchi</p> <p>Air-Conditioning Manufacturing Division Product Development Group Senior Engineer Daikin Industries, Ltd.</p>	<p>Daikin Industries, Ltd., a major air conditioner supplier creates the supporting infrastructures for the society including the working and living environment and contributed to improving the quality of our life.</p> <p>The first model using RX microcontroller was the outdoor unit of the "Ururu Sarara" series (2012 model) home-use air-conditioner with moisture humidification. The deciding factor of RX was the high real-time processing performance. After this product, we developed a basic model with a single microcontroller controlling both the fan and compressor of the outdoor unit without sensors to reduce the size. The RX62T demonstrated its true value with the ability to control two inverters with high real-time processing performance. As a result, we reduced the number of parts such as hall sensors; and achieved in developing smaller PCB board and housing in the industry. During development, a trouble was prolonged, and the prototype was transported from Shiga to Renesas in Tokyo on the Shinkansen line for debugging. It is a memorable experience now, but it was tough then. For all future models developed, RX is used in the outdoor units.</p> <p>We implemented a new control technique of the convertor and the compressor with a single chip that does not require smoothing capacitor in the PFC (Power Factor Correction) control section. In so</p>
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doing, we need to shorten the control cycle of inverters and at the same time, gaining faster access to flash memory. [RX66T](#) is a high performance MCU meeting the criteria and we started to use RX66T in the latest models. In addition, we are working on developing platforms using multiple product series for multiple regions with limited resources. For example, air-conditioners with ventilation are gaining attention as part of the COVID-19 measures, but having a platform is essential to enable such development variations. The RX microcontroller facilitates the development of a platform as it is pin-compatible and upward compatibility in features.

Considering the utilization of environmental data around air conditioners, we expect further improvements in processing performance per frequency and expanding memory sizes for future RX. We believe that Renesas is a partner with whom we can work together to improve the quality of life of society as a whole.