

## Renesas RA Partner Ecosystem Quote Sheet

### arm PELION

Arm Pelion IoT Platform is a flexible, secure, and efficient foundation for connectivity, device, and data management. It accelerates time to value for IoT deployments, enabling organizations to easily connect trusted IoT devices on global networks, seamlessly manage them and extract real-time data to drive competitive advantage.



AMI addresses intelligent man machine interface to realize natural communication between humans and machines using its unique voice recognition technology called AmiVoice. AMI's AmiVoice operates on the cloud as well as offline on PCs and smartphones.

***"By combining Renesas RA microcontrollers with our AmiVoice, I foresee an increase in demand for offline voice recognition. Also, I believe voice communication will expand into areas not previously possible. Our solution realizes high recognition accuracy using RA MCUs, which allow us to easily program various voice commands into the MCU's large memory."***

***– Takao Kobayashi of AMI***



AltoBeam is a fabless semiconductor design company that focuses on the development of ICs for digital wireless communications, providing customers with cost-effective Wi-Fi chips.

***"We are pleased to partner with Renesas to integrate AltoBeam's ATBM6031 Wi-Fi chip driver into the RA Family of 32-bit MCUs. We are committed to working with Renesas to provide IoT total solutions that offer a low investment cost and short development cycle."***

***– Li Nan, Marketing Director of AltoBeam***



BFG Engineering is a development house focused on hardware & software design targeted at advanced control for electric drives, small machinery automation, and control of industrial processes.

***“BFG is pleased to be an RA Family member and ecosystem partner delivering professional motor control solutions and creating value for the embedded MCU market. We have maintained a successful long-term partnership with Renesas as one of its Platinum Partners, building system solutions to meet the needs and demands of a wide variety of customers. We are now delivering hardware and software algorithms for RA MCUs that are based on the Flexible Software Package (FSP). BFG’s ready to use RA solutions are available today to quick start project R&D, boost ROI, and accelerate time-to-production.***



CapExt simulation software allows engineers to make better PCBs, and get it right the first time. Reduce your prototyping and engineering costs with CapExt. It’s easy to use, accurate and fast capacitance extractor/simulator for PCBs and touch screens. You can simulate any layout from Gerbers or DXF files.

***“The partnership between CapExt and Renesas ensures that Renesas customers can achieve the best possible HMI performance. I’m convinced that the touch controller in the RA Series of MCUs combined with our software for touch simulations will save countless engineer-hours, while also guaranteeing the best field performance possible. With our easy to use capacitance and resistance simulator, Renesas customers can test several virtual prototypes from their own Gerber files in just a few minutes. This saves potential months of prototyping by easily optimizing the layout for noise immunity and water resistance.”***

– Torbjørn Viksand of CapExt AS



Clarinox licenses Bluetooth, Bluetooth Low Energy and Wi-Fi protocol stacks for the Renesas RA6 Series and RA8 Series of 32-bit MCUs. The award-winning design of ClarinoxBlue and ClarinoxWiFi, coupled with the innovative ClariFi debugger and reference applications, simplifies product development and ongoing product maintenance.

***“Clarinox is pleased to partner with Renesas to meet the increasing demand for complex connectivity in embedded designs. Combining the Renesas RA MCUs performance, rich I/O support and enhanced security features with the Clarinox BT/BLE/Wi-Fi protocol stacks and ClariFi debugger enables faster and more secure wireless development. In addition, Clarinox’s support for many RTOS/OS and wireless chipsets provides excellent flexibility for developers, giving them an out of box experience with their choice of RTOS and wireless hardware. The reduction in development time facilitates faster time to market for Renesas customers.”***

–Trish Messiter, CEO of Clarinox



create. software.



**CS-Lab** is one of the leading German providers of software solutions for the industrial and building automation markets. Their focus is on development and programming applications for Windows, Linux and Embedded. MBS, a DIN EN ISO 17025 accredited and internationally recognized BACnet Testing Laboratory, is able to ensure even better independence in the commercialization of the BACnet stack.

*“The BACnet Stack RA offers users an all-round carefree experience to develop BACnet-standard-compliant applications. Implementations for a wide range of operating systems are available, from older Windows systems to various Linux variants. Many details are processed automatically so that users no longer have to worry about them. The time saved in the development process may be in this case several months. With the BACnet Stack, CS-Lab is continuing the proven functionality and reliability of the MBS software.”*

– Christian Klinger, CEO of the CS-Lab GmbH



**Cyberon Corporation** is a leading embedded speech solution provider and supported by experts experienced in Speech Recognition and Text-to-Speech technologies.

*“We are thrilled to work with Renesas and their new RA MCU Family. Combining Renesas RA MCUs and Cyberon’s speech solution allows us to explore more markets and provide users a convenient, natural and reliable user experience. Cyberon’s speech recognition SDK is widely adopted on a range of applications. The SDK provides local speech recognition without a network connection and its low resource requirements makes it ideal for simple devices.*

– Alex Liou, Vice President of Cyberon Corporation



**Cypherbridge Systems** delivers secure IoT solutions from concept to production for device platforms and up to the cloud.

*“We are excited to announce our expanded partnership with Renesas. The RA MCUs bring new mid-range IoT solutions to market, with competitive value points and a long-term roadmap. The Renesas RA Family and Flexible Software Package has everything needed to securely go to cloud, enabling new business value and services that accelerate time-to-solution. Integrating the Cypherbridge SDKPac and*

***uLoadXL secure boot loader solutions with the RA FSP platform delivers a family of SDKs and Toolkits tailored to meet a wide range of IoT applications.”***

**– Steve DeLaney of Cypherbridge Systems**



***DSP Concepts*** is the audio platform powering more than 40M of the world’s best consumer and automotive brands like GoPro, Braun, Tesla, and Porsche. [Audio Weaver](#) gives product makers access to more than 400 battle-tested modules through a drag and drop graphical user interface for agile audio development, along with plug-and-play support for [TalkTo™](#), an audio front end that enables voice-control in noisy and unpredictable environments.

***“TalkTo is an incredibly flexible audio front-end that eliminates noise in loud surroundings for high performance voice control. We’re excited to bring TalkTo to Renesas’ RA Microcontrollers. Our partnership allows us to further proliferate near- to mid-field Voice UI in a variety of IoT devices, such as smart appliances, smart security systems, and more.”***

**– Chin Beckmann, CEO of DSP Concepts**



**EPS Global** is one of the world's largest programming and secure provisioning service providers now supporting the RA Family of MCUs. Customers can seamlessly access an EPS Global network of secure programming centers in the Americas, EMEA, Asia, and India to service low-volume prototype quantities up to high-volume IC programming at competitive price points.

***“While the IoT has many benefits, the reality is the proliferation of connected devices that make up the IoT ecosystem has introduced risk directly into the physical world. To protect IoT devices, security must be built in from the initial application design and throughout the supply chain. Our vision at EPS is to enable security on our partners’ devices by offering simple, cost-effective provisioning-as-a-service through our global network of programming centers. Our partnership with Renesas and its RA Family of 32-bit MCUs means we can leverage their award-winning security platforms, along with our own in-house production technology, and deliver real value to customers.”***

**– Colin Lynch, CEO of EPS Global**



**GT&T, visibility at your touch.** GT&T is a turnkey solutions provider with hardware and software development capabilities for public transit, telematics, waste collection and event management, along with a portfolio of ERP, mobile, telemetry and sensor solutions.

**"GTT is delighted to offer the Fleet Tracker blueprint based on the Renesas RA Family. The Renesas RA MCUs along with accompanying support from various Renesas technologies and a broad distributor network enabled the speedy time-to-market development of the Fleet Tracker solution. Renesas' MCU leadership and technology expertise allows customers to develop a customized end-to-end product with minimal investment and risk. GT&T is ready to assist customers in meeting their specific needs and realize their product roadmap."**

– Lee Boon Peng, CTO of GT&T Engineering

## **HEX-Five Security**

**Hex Five®** is the creator of MultiZone® Security, the quick and safe way to add security and separation to Renesas Cortex-M devices. MultiZone can retrofit existing Cortex-M applications: if you don't have TrustZone, or if you require finer granularity than one secure world, you can take advantage of high-security separation without the need for hardware and software redesign.

***"Securing Cortex-M applications is particularly challenging as these devices typically lack hardware security mechanisms like TrustZone. In the past, to comply with security regulations, developers had no choice but to upgrade hardware and firmware - resulting in lengthy and costly system redesigns. Today, Renesas customer have a new option: MultiZone Security offers a convenient alternative path to a hardware upgrade. MultiZone can retrofit existing Cortex-M applications: if you don't have TrustZone, or if you require finer granularity than one secure world, you can take advantage of high-security hardware separation without the need for a system redesign."***

– Cesare Garlati, Founder Hex Five Security



**IAR Systems** supplies future-proof software tools and services for embedded development, enabling companies worldwide to create the products of today and the innovations of tomorrow.

***“To help our customers meet their increasing security requirements, we focus on easing security implementation, both in existing and new designs. By supporting both the RA and RX families, we deliver a security solution that enables developers to leverage their security investment across several architectures without the need for extensive redesign or rework.”***

**– Clive Watts, Director of Product Management, Embedded Security Solutions at IAR Systems**



**Pachira** is a leading provider of intelligent financial services and intelligent automobile services with a commitment to providing customers with complete AI technical consulting and intelligent voice solution services. Pachira provides the full-stack solution for user speech interactions, from devices to the cloud, including speech technologies (ASR, TTS, NR/AEC, Wake-up etc.), natural language processing, and speech analytics.

***“Pachira is honored to partner with Renesas to combine our speech technology with the RA Family of MCUs. Our differentiated technology provides customers with a reliable, efficient and powerful Artificial Intelligence of Things total solution. Together with Renesas, we are delivering user friendly HMI interfaces for smart home appliances, vehicles, speakers, and more.”***

**– Jerry L., Sales Director of Pachira**



**Qeexo** is a machine learning company that recently launched its Qeexo AutoML platform, providing an intuitive UI that allows users to collect, clean, and visualize data, and build multiple machine learning models for comparison. A selected model can be deployed to target embedded hardware with just one click. The automated platform greatly improves ML engineering efficiency and allows for rapid iterations from prototype to production.

***“Our Qeexo AutoML platform can automatically build ‘TinyML’ solutions—which is the lightweight machine learning that makes devices smarter—for a myriad of use cases including predictive maintenance and gesture/motion recognition. With high performance and low power, Renesas’ RA MCUs and the RA Ready Sensor Module is a great platform for running optimized machine learning models built with Qeexo AutoML.”***

**– Sang Won Lee, CEO of Qeexo**



Qt® from The Qt Company is the world's leading independent graphics toolkit and application framework for building GUI applications on embedded devices. Qt helps customers deliver smartphone-like UI/UX with its designer and developer tools, which support collaborative product development.

*"The Renesas RA Family with strong embedded security and ultra-low power operation complements Qt's libraries and tools for creating HMI for IoT endpoints such as consumer appliances, industrial equipment, building automation. We are happy to be part of the RA Ecosystem family"*

*– Aurindam Jana, Head of MCU Software Tools*



RELOC provides a full spectrum of engineering services to build a connected world today filled with cutting-edge and robust IoT consumer products and secure industrial M2M applications.

*"The design of secure and robust IoT products call for versatile MCU devices and production-ready software platforms that support wireless connectivity. The new Renesas RA Family of Arm Cortex-M microcontrollers leverages the FreeRTOS and middleware stacks to meet the performance and flexibility needs of IoT embedded applications. RELOC is pleased to enrich the Renesas RA offering, adding wireless connectivity to its solid technology foundation. By integrating our Wi-Fi software solutions with Renesas Flexible Software Package, we provide customers with a complete device-to-cloud reference design that significantly reduces time-to-market."*

*– Andrea Ricci, CEO of RELOC srl*



[Sensory](#) Inc. creates a safer and superior UX through vision and voice technologies. Sensory's technologies are widely deployed in consumer electronics applications including mobile phones, automotive, wearables, toys, IoT and various home electronics. Sensory's product line includes [TrulyHandsfree](#)™ voice control, [TrulySecure](#) biometric authentication, and [TrulyNatural](#) large vocabulary natural language embedded speech recognition.

*"Sensory continues to advance its state-of-the-art on-device AI, and we are proud to showcase our TrulyHandsFree wake word and command technology in a partner solution set with DSP Concepts' TalkTo on the Renesas RA series MCUs."*

*– Todd Mozer, President and CEO of Sensory*



**Silex**, when it must connect. Silex Technology America, Inc. (STA) is a wholly owned subsidiary of Silex Technology Inc. (STI), an OEM supplier of leading-edge network technology that enables devices to have wired and wireless connectivity.

“We are thrilled that our Wi-Fi IoT module has been selected by Renesas as the trusted connectivity solution for the RA Family. Renesas has integrated the Silex SX-ULPGN-2000 driver into the RA platform to enable Wi-Fi connectivity out of the box. We are committed to working closely with Renesas by providing our secure and robust IoT connectivity and premium customer support experience to our mutual global customers moving forward.”

– **Keith Sugawara, CEO and President of Silex Technology America.**



## SMARTAXIOM

**SmartAxiom** software manages and secures IoT devices through a patented, lite blockchain technology running among devices at the edge of the Internet and enabling them to defend themselves. Its peer-to-peer distributed ledgers improve security, latency, reliability and manageability. Now deployed on Renesas MCUs and MPUs, SmartAxiom has uniquely created the first true endpoint-to-cloud blockchain solution.

**“Security experts care a lot about ‘defense in depth’ and the excellent security features built into the Renesas RA MCU and RZ MPU families such as secure boot and crypto engine, which make a great foundation for SmartAxiom’s endpoint-to-cloud IoT management and security solution. They also have impressive power capabilities at an excellent price point to enable compelling solutions for our joint customers in smart buildings, industrial automation and logistics.”**

– **Trent Poltronetti, VP Sales and Marketing at SmartAxiom**



**TES Electronic Solutions GmbH** is an innovative technology and design services company offering embedded hard and software IP for a vast range of customers in global markets such as industrial, automotive and consumer electronics. Key capabilities include software, graphics, RF & antenna, mixed signal, digital and FPGA designs.



*“Renesas and TES Electronic Solutions have been close partners for many years. We are proud to empower the RA MCU family with our D/AVE 2D graphics accelerator hardware IP, and now our GULIANI software is ready to get the most out of it. GULIANI gets your stylish and intuitive GUI out the door fast, first-time right and with the business model that suits your needs. Our engineers can also design your GUI for you, often a particularly cost-effective way forward.”*

*– Joachim Huepper, Design Center Manager at TES Electronic Solutions*



Techno Mathematical Co., Ltd. (TMC) is developing and selling application systems, single function LSIs and International standard compliant sound/graphic processing hardware and software based on its own unique algorithm called DMNA.

*“Our ZoomVoice software can emphasize the sound from the target direction and suppress ambient noise. By combining Renesas’ new RA Series microcontrollers with ZoomVoice, we see significant improvement in voice recognition accuracy. The RA MCUs’ use of high-speed memory and peripherals plays a key role improving ZoomVoice performance.”*

*– Nobuki Kajino, Sales Director at TMC*



Veridify Security provides fast, small footprint, ultra-low-energy, and quantum-resistant security solutions, including authentication, secure boot, and ownership management for low-resource devices at the edge of the IoT.

*“We are happy to show the power and scalability of device-level security management on the Renesas RA Family of MCUs. Our new DOME™ platform gives RA MCU users zero-touch onboarding, a lifetime blockchain pedigree for every microcontroller, in-field ownership management functions, and secure firmware updates that are simple, cost-effective and fast. We are proud to be a Renesas partner and congratulate them on the launch of the new RA Family. We look forward to continuing our collaborative work focused on delivering innovating IoT security solutions to their global customer base.”*

*- Louis Parks, CEO at Veridify Security*



wolfSSL is a lightweight TLS/Crypto Library providing complimentary technologies such as FIPS, SSH, MQTT, and Secure Boot. wolfSSL is fully RA Ready and leverages the crypto-based hardware blocks in the RA MCUs' Secure Crypto Engine. Working with wolfSSL, Renesas RA customers can expect to shorten their time to market while using the best-of-breed crypto provided by wolfSSL.

***“IoT Security can be difficult to implement, let alone understand, which is why wolfSSL is thrilled to expand our rich partnership with Renesas and provide stronger embedded security with the RA Ready solution. This out of the box solution enables fast time to market, provides superior IoT Security and support for the vast Arm ecosystem, and efficiently handles modern TLS/Crypto stacks (TLS 1.3 Support) with industry standard support such as MISRA C, FIPS, DO-178. We are pleased to bring our best of breed TLS/Crypto Libraries to the RA MCU families via the RA Ready Program.”***

***- Larry Stefonic, wolfSSL Founder & CEO***