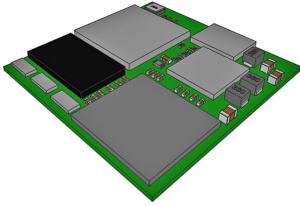


System-in-packages for industrial controls and IoT

Aries Embedded presents the embedded boards MSRZG2UL and MSRZFive, two system-in-packages (SiP) based on Renesas' single-core microprocessors RZ/G2UL and RZ/Five which come both with CAN (FD) interfaces.



MSRZ system-in-packages from Aries Embedded with Renesas RZ/G2UL or RZ/Five for industrial use (Source: Aries Embedded)

The RZ/G2UL microprocessor includes a Cortex-A55 (1 GHz) CPU (central processing unit) and a CortexM33 coprocessor, while the RZ/Five has a RISC-V CPU core (AX45MP Single) running at 1 GHz. "Renesas' CPUs offer numerous interfaces and are therefore the ideal basis for our new system-on-modules for industrial gateway devices," explained Andreas Widder, Managing Director of Aries Embedded. "The new MSRZ SiPs are used in industrial controllers, IoT (Internet of Things) devices and other embedded systems with simple GUI (graphical user interface) functions."

CAN (FD) interfaces

In the smallest size, "S", the MSRZ SiP SoMs (system-on-modules) concentrate extensive functionality on boards measuring 30mm x 30 mm each. The modules conform to the SGET OSM standard and offer an LCD controller. They support 512 MiB to 4 GiB of DDR4 RAM and 4 GiB of eMMC Nand flash. Both, the MSRZG2UL and MSRZFive provide several interfaces including two CAN (FD). The temperature range is -25 °C to +85 °C and -40 °C to +85 °C for industrial environments.

Renesas' RZ/G2UL and RZ/Five microprocessors feature two CAN (FD) interfaces each which are ISO 11898-1 (2003) and ISO 11898-1 (CD2014) compliant. Up to 128 (64 x 2-channel) receive message buffer are shared among the two channels. 16 transmit message buffers per channel are implemented.

As a result of the cooperation, Aries Embedded has been incorporated to Renesas' Preferred Partner Program. "In our partnership with Renesas, we bundle our know-how to further optimize service for our customers in the field of industrial electronics," added Andreas Widder. The MSRZG2UL and MSRZFive SiPs will be available as samples from the third quarter of 2022. Series production will start in the fourth quarter of 2022.

The company will present both system-in-packages publicly for the first time at Embedded World, stand 108 in hall 5 in Nuremberg, Germany, from June 21 to June 23, 2022.



[CW](#)

Andreas Widder is Managing Director of Aries Embedded (Source: Aries Embedded)