Macronix OctaBus™Flash Memory Selected for Renesas VC4 Automotive Computing Development Platform

Macronix OctaBus MX25UW51245G NOR Flash Provides Boot Memory to Renesas R-CAR S4 SoC-based VC4 Vehicle Computer Reference Designs

TAIPEI, Taiwan – 6 July, 2022 -- Macronix International Co., Ltd. (TSE: 2337), a leading integrated device manufacturer in the non-volatile memory (NVM) market, today announced that its MX25UW51245G Serial NOR Flash memory has been selected by Renesas Electronics Corporation for reference designs based on the Vehicle Computer Generation 4 (VC4) chipset. The high-performance MX25UW51245G will provide the VC4 platform, based on Renesas R-Car S4 system on a chip (SoC), with critical memory that enables fast boot-up times in automotive-computing designs.

Fast, reliable flash memory is essential to rapidly booting VC4-based systems, allowing them to adhere to real-time computing requirements. The MX25UW51245G, which can achieve up to 400MB/s read throughput and features low random latency, provides VC4 reference boards the flash storage needed for initial boot of the R-Car S4 SoC.

"Macronix and Renesas continue to enjoy a collaborative relationship, and we're once again joining forces to bring our respective technologies together and empowering designers with advance automotive-electronics solutions," said Macronix Vice President of Marketing F.L. Ni. "The VC4 evaluation platform

featuring our MX25UW51245G will help unleash the power of the R-Car S4 SoC and VC4 in next-generation automotive systems."

"The Renesas VC4 evaluation platform streamlines the development of automotive gateway and zone controller systems that can leverage the performance and safety features in both R-Car S4 SoC and MX25UW51245G," said Takashi Yasumasu, Vice President of Automotive Core Technology Development Division at Renesas.

A core member of Macronix's highly efficient NOR flash memory line featuring its OctaBus™ interface, the MX25UW51245G features 512Mb density, an Automotive Grade 1 temperature range of -40 ^{0}C to +125 ^{0}C and provides functional safety up to Automotive Safety Integrity Level D (ASIL D). The memory's quality and performance are enhanced substantially by Macronix's high efficient technology and know how.

The VC4 system is based on a complete Renesas chipset, the centerpiece of which is the R-Car S4 with 8x Cortex®A55 cores which features 8MB of SRAM, advanced cybersecurity and a rich selection of automotive interfaces. The VC4 provides functional safety up to ASIL D, along with the capability for simulating a wide range of connectivity inside the vehicle thereby allowing developers a rich environment for rapid prototyping. It offers an three-port Gigabit Ethernet switch and an integrated RH850 MCU functionality, which drastically reduces the customer's bill of material.

Macronix and Renesas have a rich history of complementary products and evaluation solutions. Macronix is also a member of Renesas RZ Partner Ecosystem Solutions program and the R-Car Consortium, and a broad range of its flash memory products are represented in several Renesas RZ evaluation boards, including the OctaBus, ArmorFlash™ and e.MMC™ families.

For more information on the Macronix MX25UW51245G, please go to https://www.macronix.com/en-us/products/NOR-Flash/Serial-NOR-Flash/Pages/spec.aspx. For more information on the Renesas Vehicle Computer Generation 4, please go to www.renesas.com/eu/en/application/automotive/gateway-domain-control/vehicle-computer-generation-4#overview.

About Macronix

Macronix, a leading integrated device manufacturer in the non-volatile memory (NVM) market, provides a full range of NOR Flash, NAND Flash, and ROM products. With its world-class R&D and manufacturing capability, Macronix continues to deliver high-quality, innovative and performance-driven products to its customers in the consumer, communication, computing, automotive, networking and other market segments. Find out more at www.macronix.com.

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