



## **Macronix octaflash UW Series Memory Provides High-Density Flash Solutions for NXP S32Z and S32E Real-Time Processors**

**TAIPEI, Taiwan** – June 28, 2022 -- Macronix International Co., Ltd. (TSE: 2337) today announced that Macronix's MX25UW high efficiency octaflash flash memory family has been selected for NXP® Semiconductor's S32Z and S32E real-time processors for safe integration of real-time applications. The selection marks the companies' next step in deploying Macronix OctaBus Memory technology in NXP's S32 Automotive Platform, whose MCUs and processors are designed to address vehicles' connectivity, security and safety challenges. This development also reflects the growing need for performance, flexibility and temperature tolerance in both processors and flash memory used in demanding automotive applications.

Macronix's MX25UW high efficiency octaflash flash memory family offers devices with densities ranging from 64Mb (8MB) to 2Gb (256MB) in Automotive Grade 1 (-40 °C to +125 °C). It supports built-in error-correction code (ECC) for single-error correcting and double-error detecting (SECCED), and Automotive Safety Integrity Level D (ASIL D)-certified – the highest classification and the most stringent safety level within the ISO 26262 automotive functional safety standard. The memory features a single- or Octal-I/O interface, low power (1.7V to 2V) and Double Transfer Rate (DTR) mode operation for fast data transfer of up to 400 MHz – the fastest serial flash in the industry. The MX25UW flash memory family provides a multiple-bank structure that allows high efficiency operation. It's an ideal solution for over-the-air (OTA) update applications, which are becoming more prevalent in the "connected car" market and enable a fast, efficient method of providing them with up-to-date data.

The NXP S32Z and S32E real-time processors are designed for safe, multi-application integration to support new domain and zonal vehicle E/E architectures and software-defined vehicles. The S32Z processors are ideal for safety processing and domain and zonal control, while the S32E

processors are ideal for electric vehicle (xEV) control and smart actuation. They feature eight split-lock Arm® Cortex®-R52 cores running up to 1 GHz, a Cortex-M33 lock-step pair of cores (system manager) and a DSP/ML processor for advanced predictive control and machine learning applications. They additionally include a CAN communications accelerator (FlexLLCE), integrated Ethernet switch (NETC3) and hardware security engine (HSE) that support public key infrastructure (PKI). The S32Z and S32E processors are certified for ISO/SAE 21434 cyber security and ISO 26262:2018 functional safety. They are AEC-Q100 Automotive Grade 1 compliant, supporting ambient temperatures between -40 °C to +125 °C.

NXP is the world's largest supplier of automotive processors. Macronix is a leading integrated device manufacturer in the non-volatile memory (NVM) market, including flash memory solutions for the automotive market.

“Safety is a top priority in automotive electronic systems that use our S32Z and S32E processors for real-time applications,” said Andy Birnie, NXP Senior Director of Solutions & Applications for Automotive Processors. “Macronix shares that same approach to automotive safety, making the selection of the MX25UW flash memory family for our S32Z and S32E processors straightforward.”

“Macronix has long emphasized quality, reliability and performance in our flash memory solutions, especially for applications such as automotive electronics, we’ve enhanced our product offerings for automotive market by adding safety to the equation,” said Macronix Vice President of Marketing F.L. Ni. “Our MX25UW high efficiency memory, with its ASIL D certification, is the ideal complement to NXP’s S32Z and S32E real-time processors in automotive electronic systems prioritizing the safety of drivers, passengers and the general public.”

The NXP [GreenBox 3](#) hardware platform integrates the S32E288 processor with 32 MB of Macronix MX25UW25645G flash memory for evaluation and is supported by the NXP S32 Flash Tool. For additional information on read-while-write octaflash MX25UW25645G flash memory, please [contact Macronix](#).

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### **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](http://www.macronix.com).