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Winbond introduces the next generation 8Mb Serial Flash for edge devices in space constrained IoT applications

Taichung, Taiwan - 2023-06-15 – Winbond Electronics Corporation, a leading global supplier of semiconductor memory solutions, today announced the 8Mb 3V NOR W25Q80RV, the first of a new family of high performance, small form factor serial flash devices with higher read performance addressing the requirement of connected edge devices used in industrial and consumer applications.

This 8Mb density Serial Flash produced in Winbond's own 12-inch wafer fabrication facility is manufactured using the latest generation of 58nm technology and is significantly smaller in size compared to its predecessor which was built using 90nm technology. The KGD (Known Good Die) and WLCSP (Wafer Level Chip Scale Package) versions of this latest device are ideal for use in variety of small-form-factor IoT devices.

"The Internet of Things is expanding to 50 billion connected devices by 2023," said Alan Niebel, president of WebFeet Research, an independent market-research firm. "Winbond's 3V 8Mb Serial Flash is suitable for both automotive and IoT segments. Overall, IoT is poised to grow in this new connected world with all shipments of Serial Flash totaling 12.9B units worldwide by 2027".

The company has been supporting the requirements of customers using the 8Mb Serial Flash with the existing generation of W25QxxDV series for several years in applications including instrumentation, networking, PC, printer, automotive and gaming. Now the time has come to support these applications to include new use-cases such as wireless connectivity with KGD and WLCSP solutions in advanced technology and with smaller lead frame packages.







Winbond is a high-volume provider of KGD solutions for more than 10 years. KGDs are fully baked and tested to have the same reliability level as packaged products. They are ideal for stacking with MCUs or SoCs requiring high-speed flash access. With faster read speed to enhance system performance, faster programing for efficient manufacturing and firmware OTA (Over-the-Air) update coupled with the smaller form factor aspect of SIP (system-in-package), this new 8Mb flash provides greater value for a variety of embedded systems.

The W25Q80RV supports all popular single/dual/quad/QPI commands and read modes. It is ideal for executing code (XIP) directly from flash as well as code shadowing to RAM. This device operates on a single 2.7V to 3.6V power supply with power-down current down to 1 μ A. The flash is organized as small 4KB sectors which allow for greater flexibility and storage efficiency in applications that require code, data and parameter storage. SPI clock frequencies of up to 133MHz Single Data Rate and 66MHz Double Data Rate are supported. The Read Command Bypass Mode allows faster memory access for true XIP (execute in place) operation.

"Winbond is proud and committed to innovate and differentiate by designing our Serial Flash KGD and WLCSP solutions for use in specialized applications requiring smallform-factor and non-volatile storage for MCUs and SoCs," said Jackson Huang, Flash Product Marketing Vice President, Winbond. "We continue to work closely with customers and add value for their next-generation embedded solutions."

Availability and Pricing

W25Q80RV is available now. This will be followed by other densities in the family. Fore more information availability and pricing please visit email:

sales.europe@macnica.com.







Contact: Press Macnica ATD Europe GmbH Josef Sigl Tel. +49-89-899143-11 Email: <u>sales.europe@macnica.com</u>

Sales Macnica ATD Europe GmbH

Tel. +49-84188198-102 Email: <u>sales.europe@macnica.com</u>

About Winbond

Winbond Electronics Corporation is a total memory solution provider. The Company provides customer-driven memory solutions backed by the expert capabilities of product design, R&D, manufacturing, and sales services.

Winbond's product portfolio, consisting of Specialty DRAM, Mobile DRAM, Code Storage Flash, and TrustME® Secure Flash, is widely used by tier-1 customers in communication, consumer electronics, automotive and industrial, and computer peripheral markets.

Winbond is headquartered in Central Taiwan Science Park (CTSP), and it has subsidiaries in the USA, Japan, Israel, China and Hong Kong, and Germany.

Based on Taichung and Kaohsiung 12-inch fabs in Taiwan, Winbond keeps pace to develop in-house technologies to provide high-quality memory IC products. <u>www.winbond.com</u>.

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About Macnica ATD Europe GmbH, (former Macnica GmbH)

Macnica's ATD Europe GmbH, (former Macnica GmbH), was originally established in the UK in 2006, and moved to Germany in July 2008, to increase efficacy of its service for European customers.

By it's acquisition of the Munich based company Scantec Mikroelektronik in 2014 Macnica Europe formed a powerful semiconductor distribution with headquarter in Ingolstadt and offices in Munich, Regensburg, Milton Keynes (UK) and Warsaw offering an attractive and competitive portfolio of highly sophisticated devices.

Macnica provides end to end support from design-in to production through its global service network to its customers, regardless of the final destination of the product shipment to customers' manufacturing locations.







About Macnica ATD Europe S.A.S.

Founded in 1990 as ATD Electronique, Macnica ATD Europe headquarter offers innovative components dedicated to imaging applications for the European market. Its product portfolio includes: image sensors (CCD, CMOS, InGaAs, Thermal etc.), optics, interface circuits, FPGA & IPs, imaging processors, cables and OLED microdisplays.

It also covers development tools and design services enabling fast and efficient realization of new high-performance camera systems for markets such as machine vision, medical, life sciences, surveillance, automotive and others. After the acquisition of the company by Macnica Inc. as of October 1, 2020 the company operates under the name Macnica ATD Europe.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 85 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 3,900 and its consolidated revenue for fiscal 2021 was approximately US\$ 7.6 B.

Macnica is famous for having an excellent engineering team of more than 900 application support engineers, IC designers and software developers with strong focus on providing technical support for its customers including custom design services. Macnica is continuing to extend its presence globally by having successful partners in strategic areas in the electronics market.



