Press release
Communiqué de presse
Comunicato stampa
新闻稿 / 新聞稿
プレスリリース
보도자료

T4491S

STMicroelectronics accelerates development of innovative connected objects with smart STM32 wireless module

Lead customer, I-care Group, uses STM32WB5MMGH6 wireless module in Wi-care intelligent industrial predictive maintenance application

Geneva, October 20, 2022 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, is helping increase industrial productivity and reduce waste and pollution with its smart wireless module. Conceived for Industry 4.0 applications, this module, the STM32WB5MMGH6, simplifies using ST's innovative wireless microcontrollers in powerful use cases like I-care Group's intelligent equipment condition monitoring.

The module provides a complete subsystem for wireless communication using popular standards such as Bluetooth Low Energy, Zigbee, and Thread and comes with free-to-use protocol stacks. Alternatively, developers can use other proprietary protocols, if preferred. The module integrates several essential components including the antenna and its matching circuitry, all   the passives, and timing crystals. Pre-certifications for EMC, Bluetooth LE 5.3, Zigbee 3.0, and OpenThread simplify the mandatory testing and product-level approval processes for users, which saves development costs and accelerates time to market.

Lead customers are already building ST's STM32WB5MMGH6 module into upcoming new products. One example is I-care Group, a global leader in machine health, whose continuous monitoring solutions enhance the maintenance of industrial equipment to ensure optimum performance and avoid unexpected failures and downtime. The Company's Wi-care sensors are a true plug-and-play wireless and continuous asset monitoring system. When combined with I-see, I-care's cloud-based and AI-driven analytical platform, it provides a complete maintenance 4.0 solution, allowing users to visualize equipment status and plan maintenance schedules. With I-care solutions, more than 99% of industrial breakdowns can be avoided, machine downtime is reduced by 10-20%, and maintenance costs are reduced by 35-45%.

Fabrice Brion, CEO of I-care, said, "*I-care has the ambition to become the world leader in prescriptive and predictive maintenance. The swift and successful production and rollout of our market leading Wi-care sensors plays a crucial role in our growth plans. ST's STM32WB5MMGH6 wireless module provides an indispensable part of Wi-care.*"

"*Choosing a wireless module instead of engineering a chip-down solution is the fastest way for developers to complete their projects,*" said Hakim Jaafar, General Manager - BLE/802.15.4 MCU, STMicroelectronics. "*The STM32WB5MMGH6 module, based on our own STM32WB55 wireless MCU and fully supported by ST, now makes this approach faster, easier, and more affordable than ever.*"

The STM32WB5MMGH6TR is in production now and available for new designs, priced from $6 for orders of 10,000 pieces. It is supported by ST's 10-year product longevity commitment, which ensures long-term availability of parts for industrial applications.

Further technical information

The STM32WB55 MCU powering the STM32WB5MMGH6 has an Arm® Cortex®-M4 core for application-level processing and a Cortex-M0+ dedicated to managing the integrated radio, which safeguards real-time performance in both domains.
The MCU contains generous on-chip RAM, which is particularly advantageous when running the Thread protocol. Popular use cases include wireless communication and control of devices such as remote sensors, smart door locks, PC accessories including printers, and infrastructure equipment like network gateways and smart-building controllers. The radio's multi-protocol technology provides flexibility and allows convenient device administration and fleet management.

Product designers working with the STM32WB5MMGH6 module benefit from the extensive STM32 microcontroller development ecosystem that includes free tools like the STM32CubeMX configurator and software like the STM32CubeWB MCU package. This package provides essential embedded-development resources, including production-ready MISRA C and ISO/TS 16949 compliant Hardware Abstraction Layer (HAL) and low-layer APIs, FatFS file system, FreeRTOS, communication-protocol stacks, and code examples.

STM32 is a registered and/or unregistered trademark of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere. STM32 is registered in the US Patent and Trademark Office

About STMicroelectronics

At ST, we are 48,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An independent device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology. ST is committed to becoming carbon neutral by 2027. Further information can be found at www.st.com.

About I-care Group

I-care Group is a world leader in machine health. Their AI- and data-driven solutions can predict industrial failures months or even years before they occur. Thanks to I-care, machines around the world are safer, more productive and more sustainable. Founded in Mons in 2004, the company has close to 700 employees and subsidiaries in 12 countries (Americas, Europe and Asia-Pacific), with customers in more than 55 countries. I-care won the EY Company of the Year Award in 2020 (Belgium).

For Press Information Contact:

STMicroelectronics
Michael Markowitz
Director Technical Media Relations
Tel: +1 781 591 0354
Email: michael.markowitz@st.com

I-care Group
Jochem Binst
Tel: +32 497-425.130
jb@gosselindewalque.com