

## New Bluetooth module from Panasonic Industry offers great performance while minimizing current consumption

*PAN B511-1C is the perfect solution for Matter applications*

MUNICH, FEBRUARY 2025

The newly launched small and cost-effective PAN B511-1C Bluetooth module from Panasonic Industry features great performance and great memory while minimizing current consumption based on the Nordic nRF54L15 single chip controller.

A dedicated number of GPIOs is positioned at the edge of the module, with the rest of the GPIOs located at the bottom pad. In total, the module provides access to all 32 GPIOs of the chip. Despite its hybrid packaging of castellated holes and LGA, the module remains at the small size of a 2-cent coin. This way, it combines the advantages of both worlds without compromising on size and enables one of the best pin-to-size ratios for Bluetooth modules currently on the market. Its edge pins facilitate easier hand-soldering and support the use of inexpensive 2-layer PCB designs and optical inspection methods, eliminating the need for costly X-ray machines. The module also features an embedded microcontroller and ARM Cortex-M33 with a high amount of flash memory of 1.5 MB and a RAM size of 256 kB.

Tomislav Tipura, Product Manager at Panasonic Industry comments: “Our latest PAN B511-1C Bluetooth module features very complex and sophisticated algorithms. We also offer three different spec variants to enable a variety of applications. The modules are for example available with additional integrated slow clock crystal for energy efficient battery powered operation and additional 4 MB Flash Memory for more complex applications. We think our clients will love this module for its versatility and power at a competitive price point”

An output power of 8dbm makes the module ideally suited for the European market. The main target applications are lighting, home appliances, industrial sensors, medical devices, healthcare wearables and energy management devices and solar farms. Furthermore, the PAN B511-1C is ideally suited for Matter applications, as it comes equipped with additional flash memory and is fully compatible with the PAN MAX Service that facilitates the production and launch of Matter production. The module will be available in three distinct spec variants to cater to diverse project needs.

The PAN B511-1C Bluetooth module will be certified for CE RED, FCC, ISED and MIC. Samples are already available now and the start of mass production is scheduled for June 2025.

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For more information on the latest PAN B511-1C Bluetooth module please click [here](#).

## **About Panasonic Industry Europe GmbH**

Panasonic Industry Europe GmbH is part of the global Panasonic Industry organization, one of the eight major operating companies within Panasonic Holding. Panasonic Industry Europe provides products and services for industrial customers all over Europe.

Panasonic Industry Europe is committed to enabling customers to achieve their goals in a broad range of industrial sectors such as mobility, infrastructure, automation, medical, appliances, smart living, and security. With the know-how of devices and solution technologies, cultivated through a global mindset and over a century of tradition, Panasonic Industry collaborates closely with customers to create a sustainable future.

Panasonic Industry Europe's broad and diverse product portfolio encompasses key electronic component sectors including electromechanical and passive components, batteries and other energy products, sensors and wireless connectivity modules, thermal management materials and custom solutions, as well as automation devices & solutions.

More about Panasonic Industry Europe: <http://industry.panasonic.eu>

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Founded in 1918 and today a global leader in developing innovative technologies and solutions for wide-ranging applications in the consumer electronics, housing, automotive, industry, communications, and energy sectors worldwide, the Panasonic Group switched to an operating company system on April 1, 2022, with Panasonic Holdings Corporation serving as a holding company and eight companies positioned under its umbrella.

The Group reported consolidated net sales of Euro 54.12 billion (8,496.4 billion yen) for the year ended March 31, 2024. To learn more about the Panasonic Group, please visit: <https://holdings.panasonic/global/>