



# ST67W611M1

## First ST Wi-Fi 6 network coprocessor modules



### Unlock your IoT design potential and enable secure direct cloud connectivity with multiprotocol modules

STMicroelectronics unveils its first Wi-Fi 6 modules in a new series, born from a strategic collaboration with Qualcomm Technologies.

The ST67W611M1 modules will give STM32 developers the opportunity to build IoT devices leveraging multiple protocols without requiring expertise in RF technology.

The new modules promise to be a game-changing solution for developers. They will enhance connectivity, security, and design scalability, while offering a seamless design experience thanks to a full integration into the STM32 ecosystem.

#### KEY FEATURES AND BENEFITS

##### Wireless connectivity

- Wi-Fi 6 / Bluetooth® Low Energy 5.3 / Thread combo
- Supports Matter protocol over Wi-Fi for future-proof connectivity
- Up to 20 dBm output power
- MCS9, HE20 / HE40
- 2 Mbps for Bluetooth® Low Energy

##### Integration

- Embedded 4 Mbytes of flash memory with OTA capability
- Embedded 40 MHz crystal
- Antenna integration

##### Advanced hardware security

- Integrated hardware cryptographic acceleration
- Security services (secure boot, secure debug, and more)
- PSA Certified Level One

## Trusted solution for IoT devices

### Ready to use

The self-contained and certified Wi-Fi 6/Bluetooth® Low Energy/Thread network coprocessor plug-in modules will address next-gen industrial and consumer IoT devices, reducing software development effort and minimizing lifecycle risks. Preloaded to support Wi-Fi 6 and Bluetooth® Low Energy commissioning thanks to an AT-command set, the modules feature a

simple host MCU or MPU serial driver. Perfectly compatible with STM32 MCU and MPU series as host devices, they provide customers that are already using STM32 platforms with a fast go-to-market solution.

### Optimized efforts and costs

These certified modules ensure regulatory compliance and support both Wi-Fi and Bluetooth® Low Energy. Additionally, they offer hardware scalability and software design, flexibility based on the host capabilities, with embedded flash memory reducing

constraints on the host device. By using a certified module that requires no RF expertise, developers can reduce their design cycle and save regulatory costs, leading to faster time-to-market and maximized cost effectiveness.

Furthermore, developers can benefit from a seamless integration in the STM32 ecosystem.

## STM32Cube ecosystem simplifies your design journey

### Software

The software support for the modules includes:

- STM32CubeMX for code generation for the host STM32 MCU or MPU.
- The X-CUBE-ST67W61 package supported in STM32CubeMX with dedicated Wi-Fi and Bluetooth® Low Energy drivers and examples.
- STM32CubeIDE for host MCU or MPU development.

Additionally, toolsets from ST and Qualcomm Technologies will provide advanced QoL features for comprehensive development and debugging.

### Hardware

Users will be able to start prototyping with X-NUCLEO-67W611M1 Nucleo expansion board, providing a robust and integrated development environment.



## ST wireless solutions for IoT applications worldwide

<p>Mid range (m)</p>	<p>2.4 GHz 40 Mb/s</p>		<p>ST67W6</p>
<p>Short range (m)</p>	<p>2.4 GHz 2 Mb/s</p>		<p>STM32WB STM32WBA</p>
<p>Long range (km)</p>	<p>400 &amp; 900 MHz 100-1000 kb/s</p>		<p>STM32WLx</p>



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