STM32 family delivers Zigbee

Enabling seamless control of IoT devices in smart homes

Discover the power of Zigbee with STM32WB, STM32WBA MCUs!

Seamlessly integrate your devices into a robust and efficient network, unlocking endless possibilities for smart homes, industrial automation, and IoT applications.

Thanks to Zigbee's low-power consumption and reliable communication capabilities, combined with STM32WB, STM32WBA wireless MCUs, developers can enhance device connectivity, improve energy efficiency, and simplify their development.

Zigbee-certified STM32 products allow you to easily deploy Zigbee applications in smart homes and buildings.

#1 GP MCU Worldwide *

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KEY BENEFITS
- Reliable connectivity in challenging environments
- Extended battery life for energy-efficient operation
- Scalable mesh networking for flexible expansion
- Robust security against unauthorized access
- Simplified development for faster time to market
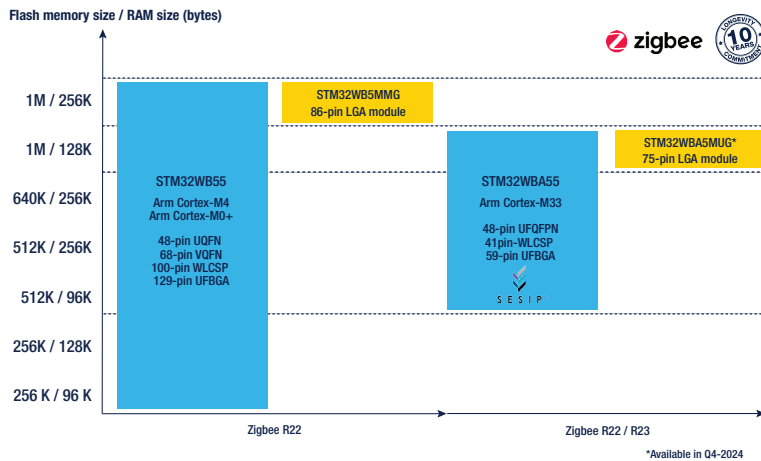
KEY APPLICATIONS
- Home automation
- Industrial control systems
- Building automation
- Medical data collection and monitoring
- HVAC control
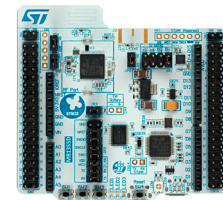- Wireless sensor networks
- Smart energy

*Source: OMDIA CLT March 2022

www.st.com/stm32-zigbee
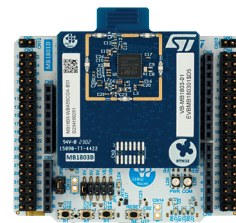
STM32WB, STM32WBA MCUs with Zigbee support

STM32WB and STM32WBA are multiprotocol wireless series giving you flexibility for your Zigbee applications.

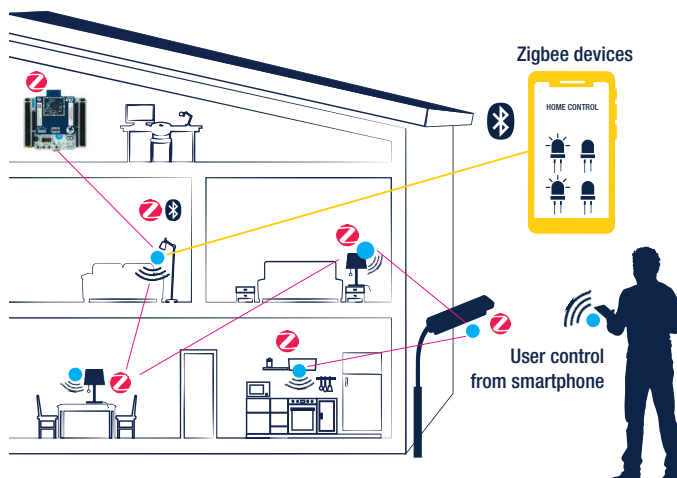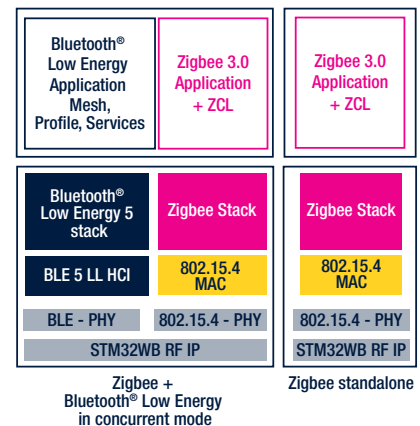**Flash memory size / RAM size (bytes)**

1M / 256K		STM32WB5MMG 86-pin LGA module
1M / 128K		STM32WBA5MUG* 75-pin LGA module
640K / 256K		
512K / 256K	STM32WB55 Arm Cortex-M4 Arm Cortex-M0+ 48-pin UQFN 68-pin VQFN 100-pin WLCSP 129-pin UFBGA	STM32WBA55 Arm Cortex-M33 48-pin UFQFPN 41pin-WLCSP 59-pin UFBGA
512K / 96K		S E S I P
256K / 128K		
256 K / 96 K		
	Zigbee R22	Zigbee R22 / R23

*Available in Q4-2024

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Hardware evaluation

NUCLEO-WB55RG

NUCLEO-WBA55CG

Zigbee Mesh network + Bluetooth® Low Energy concurrent capability

Zigbee devices

HOME CONTROL

User control from smartphone

STM32WB, STM32WBA connectivity stacks and applications

Many integration possibilities available with Zigbee in standalone or in concurrent mode.

Bluetooth® Low Energy Application Mesh, Profile, Services	Zigbee 3.0 Application + ZCL	Zigbee 3.0 Application + ZCL
Bluetooth® Low Energy 5 stack	Zigbee Stack	Zigbee Stack
BLE 5 LL HCI	802.15.4 MAC	802.15.4 MAC
BLE - PHY	802.15.4 - PHY	802.15.4 - PHY
STM32WB RF IP		STM32WB RF IP

Zigbee + Bluetooth® Low Energy in concurrent mode

Zigbee standalone

START DEVELOPING NOW!

STM32CubeWB and STM32CubeWBA firmware packages are available.

STM32Cube ecosystem More than **1 million developers** have chosen STM32Cube, making it the reference in the industry.

STM32 Cube

Discover our wiki site on STM32 connectivity solutions

Discover our Zigbee product webpage

MIX
Paper from responsible sources
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