STM32 family goes with Matter

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matter

Smart home & building unified connectivity standard

STM32

STM32 portfolio supports Matter for interoperable and secure IoT devices

To increase interoperability among smart home and building devices, the STM32 portfolio is fully compatible with Matter.

Smart home and building applications involve multiple IoT objects, all connected to each others through local networks, as well as to the Cloud for data processing and storage.

Launched by the Connectivity Standards Alliance (CSA), Matter unifies IoT connectivity, regardless of the device's platform and brand.

Simplify your design journey with STM32 Matter-enabled products: STM32WB, GP MCUs and MPUs. STM32WB series comes with Bluetooth LE and OpenThread.

KEY BENEFITS
Application processor with connectivity
- Hosted and standalone solutions
- Multi-protocol support for concurrent mode
- Bluetooth LE 5.3, OpenThread 1.3 for Matter certification
- Large memory for flexible software management
- Security features for data and key protection

KEY APPLICATIONS
End devices
- Sensors - temperature, presence, etc.
- Door Locks
- Lighting
- Media intertainment Bridges
- Gateways

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ST portfolio supports all kind of Matter devices

Matter device type	Connectivity	Wireless MCUs in standalone	Hosted architecture (MCU/MPU + radio co-processor)
Matter to Thread Bridge	Thread RCP Ethernet	-	STM32H7 + STM32WB STM32MP1 + STM32WB
Matter Thread End Device	Concurrent Dynamic Thread - Bluetooth LE	STM32WB*	STM32H7 + STM32WB STM32U5 + STM32WB STM32MP1 + STM32WB
Matter non-Matter Bridge	Any**	-	STM32H7 + STM32WB STM32MP1 + STM32WB STM32H7 + STM32WL STM32MP1 + STM32WL

*OTA on external Flash
**data model bridging Matter to any other technology

Design with STM32WB
Multi-protocol MCUs

The STM32WB series offers a dual core architecture: the arm® Cortex®-M0+ core manages connectivity, while the Cortex-M4 core is dedicated to the application. Coming with peripherals like Quad-SPI, Touch sense, LCD driver —among others— the STM32WB series comes in various package options, to fit your end-device requirements
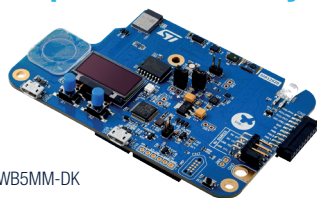
Speed up your development
STM32Cube ecosystem

STM32Cube is the most widely used ecosystem in the industry. It ensures the smooth integration of STM32 MCUs, from configuration up to radio testing, all free of charge. Examples are provided, as well as radio stacks with the STM32CubeWB firmware package. Finally, ST will release a software development kit that will leverage the STM32Cube ecosystem to simplify the development of your matter-enabled applications. Meanwhile, a preview version is available through STM32 Hotspot GitHub for early development.

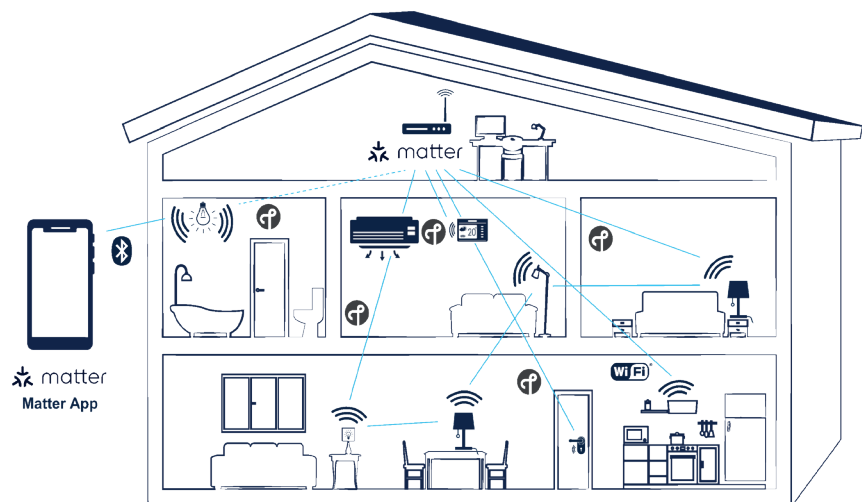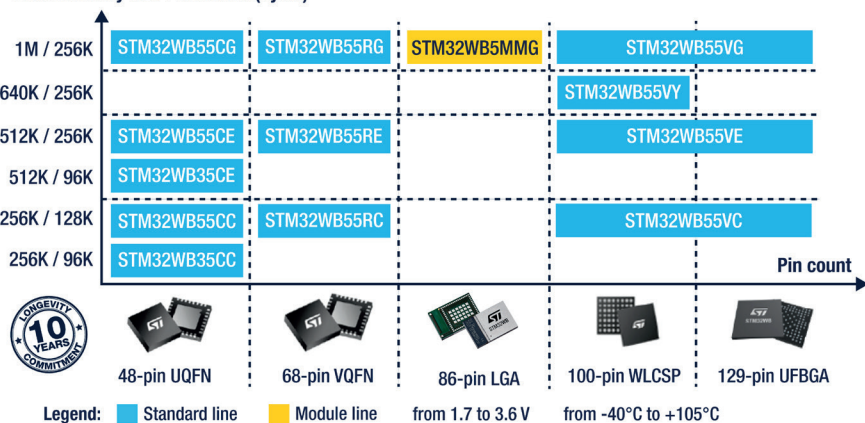## STM32WB HW evaluation development discovery

STM32WB5MM-DK

STM32WB portfolio

Flash memory size / RAM size (bytes)

1M / 256K	STM32WB55CG	STM32WB55RG	STM32WB5MMG	STM32WB55VG
640K / 256K				STM32WB55VY
512K / 256K	STM32WB55CE	STM32WB55RE		STM32WB55VE
512K / 96K	STM32WB35CE			
256K / 128K	STM32WB55CC	STM32WB55RC		STM32WB55VC
256K / 96K	STM32WB35CC			

Pin count →

10 YEARS LONGEVITY COMMITMENT

| 48-pin UQFN | 68-pin VQFN | 86-pin LGA from 1.7 to 3.6 V | 100-pin WLCSP from -40°C to +105°C | 129-pin UFBGA |

Legend: ▇ Standard line ▇ Module line

matter

Matter App

WiFi

MIX
Paper from responsible sources
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