STM32 family goes with Matter

For IoT device interoperability in smart homes and buildings

STM32 portfolio supports Matter for interoperable and cloud connected IoT devices

To increase interoperability among wireless devices in smart homes and buildings, the STM32 portfolio includes several MCUs and MPUs that are compatible with the Matter standard.

IoT devices in smart homes and buildings are connected to each other through multiple local networks, and connected to the cloud for data processing and storage. Without a unified language, user experience is not optimal and device management can be complex.

Launched by the Connectivity Standards Alliance (CSA), Matter provides a common standard to simplify and unify IoT connectivity, regardless of the device's platform and brand.

Simplify your design journey with Matter-enabled STM32 products and get ready to deploy Matter applications, such as border routers, Matter end-devices, and Matter to non-Matter bridges!

*Source: OMDIA CLT March 2022

#1 GP MCU Worldwide*

matter

KEY BENEFITS
Application processor with connectivity
- Hosted and standalone solutions
- Multi-protocol support for concurrent mode
- Bluetooth® Low Energy 6.0, OpenThread 1.3 for Matter certification
- Large memory for flexible software management
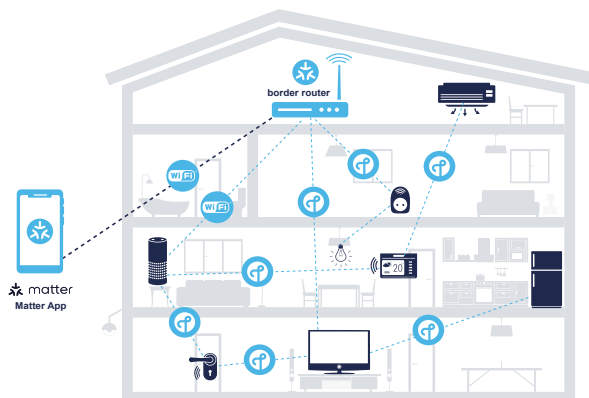- Security features for data and key protection

KEY APPLICATIONS
End devices
- Temperature and pressure monitors
- Door locks
- Lighting
- Media entertainment bridges
- Gateways

www.st.com/stm32-matter

The roles of connected devices in a Matter network

In smart homes, connected devices run based on Wi-Fi, Thread, or Ethernet technologies, and each device has a specific role within the Matter network. These devices can be end devices, routers/bridges, or controllers.
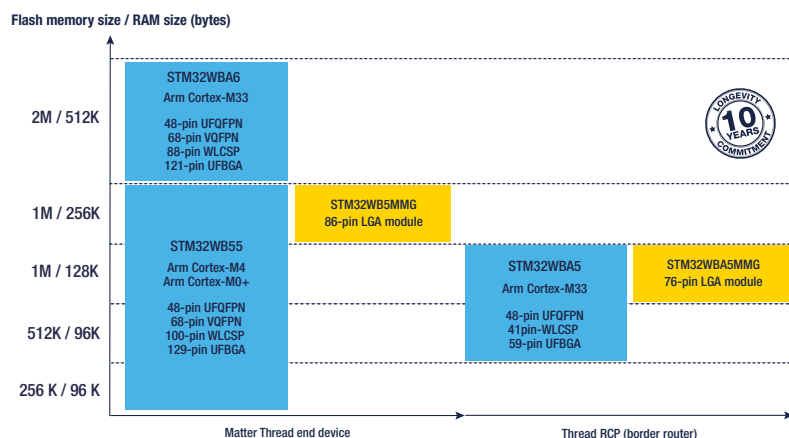

ST portfolio supports multiple Matter devices

Matter device type	Connectivity	Wireless MCUs in standalone	Hosted architecture (MCU/MPU + radio co-processor)
Thread border router	Thread RCP Ethernet	-	STM32H7 + STM32WBA5 STM32H7 + STM32WB STM32MP1 + STM32WBA5 STM32MP1 + STM32WB
Matter Thread end device	Concurrent Dynamic Thread Bluetooth® Low Energy	STM32WB* STM32WBA6	STM32H7 + STM32WBA5 STM32H7 + STM32WB STM32U5 + STM32WBA5 STM32U5 + STM32WB
Matter gateway (ie: Zigbee, LoRa, ...)	Data model bridging Matter to any other technology	-	STM32H7 + STM32WBA5 STM32H7 + STM32WL STM32MP1 + STM32WBA5 STM32MP1 + STM32WL

* OTA on external Flash

STM32WB and STM32WBA MCUs with Matter support

Multiprotocol wireless series giving you flexibility for your applications.

Hardware evaluation boards

NUCLEO-WBA55CG

NUCLEO-WBA65RI

STM32WB5MM-DK

START DEVELOPING NOW WITH X-CUBE-MATTER!

Reduce certification costs: Including BLE 6.0 and Thread 1.3 certifications. Pre-certified Matter SDK and Thread RCP.

Effortless Matter integration: Seamlessly add Matter to your STM32 devices with our regularly updated SDK.

Broad connectivity: Supports Thread, Wi-Fi, and Ethernet for ultimate flexibility.

Packed with features: OTA, provisioning, sleeping devices - it's all here.

Develop anywhere: Linux, Mac, or Windows - choose your platform.

Fast prototyping: Pre-integrated reference boards make development a breeze.

Expert support: Wiki, FAE team, and community - we're with you every step.

X-CUBE-MATTER firmware package

Discover our wiki site on STM32 connectivity solutions

Order code: FL2508STM32MATTER

For more information on ST products and solutions, visit www.st.com