

# MEDIOLA OEM SMART HOME 2.0 MODULE

## MULTI STACK TECHNOLOGY

 Made in Germany

Our mediola OEM SH 2.0 module is designed for integration into various categories of RF-based building technology products. It features a flexible architecture based on the innovative, newly developed Multi Stack technology to realize various application scenarios and expansion options. Due to an adapter board, integration is easy even with different product designs. Manufacturers in the industry can use this module to quickly, easily, and cost-effectively adapt their RF-based product lines to the requirements of the new EU cybersecurity regulations and also benefit of the significant market opportunities presented by the new universal Smart Home standard Matter.

For this purpose, the Multi Stack technology in conjunction with the mediola connect protocol ensures that different application and radio levels can be executed simultaneously. This enables products to be controlled across multiple connections (Wi-Fi, Thread, Bluetooth, Sub 1 GHz) at the same time. So you can use classic Sub 1 GHz handheld remote controls as well as the mediola Connect app or a custom OEM app. Via Matter, the products can also be integrated into the leading smart home platforms from Apple, Google, Amazon, Samsung and controlled and automated with their voice assistants and apps.

### 433 / 868 MHz and Matter-ready

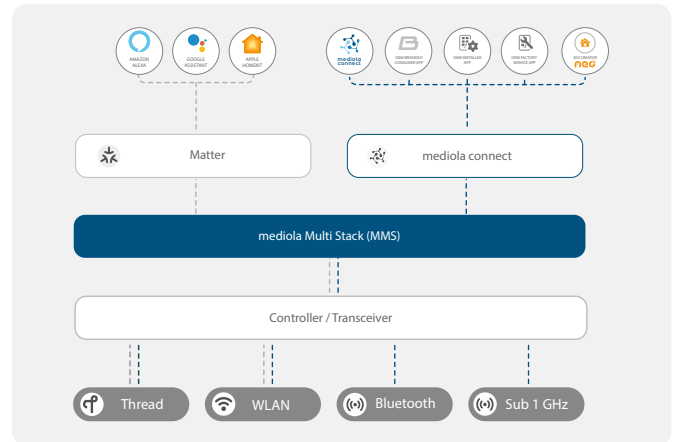
To ensure compliance with the EU cybersecurity regulations coming into force in 2025, we offer our Sub 1 GHz variants with 433 or 868 MHz, which include a Matter upgrade option via software update (Matter-ready).

Depending on requirements, you can choose between Matter-over-WiFi or Matter-over-Thread compatibility. Encrypted RF communication and update capability via Bluetooth can be added as further option via the mediola Sub1-EUPro RF protocol.

### Matter-direct with optional Sub 1 GHz extension

This variant of the module supports Matter directly based on Wi-Fi or Thread. An additional Sub 1 GHz radio transceiver (433 or 868 MHz) can be optionally used to continue using existing radio handheld remote controls with an old Sub 1 GHz radio protocol to control the new Matter devices.

A major advantage, since, for example, Thread does not allow point-to-point control without an additional border router.



### Delegated Regulation (EU) 2022/30 under the Radio Equipment Directive (RED)

Manufacturers must act quickly, as from August 2025, wireless-controlled products must meet specific cybersecurity requirements as a mandatory prerequisite for CE marking. These requirements include, among others:

- Wireless products must include security features that protect against cyberattacks, specifically implementing measures to ensure the confidentiality, integrity, and availability of services and data.  
**(encrypted communication)**
- Security updates and patches must be provided to address known vulnerabilities ensuring the system remains protected against emerging threats.  
**(update capability)**

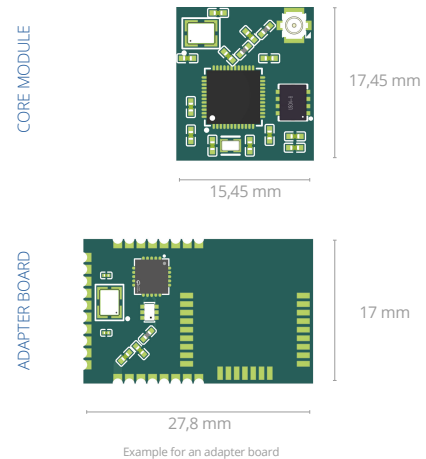
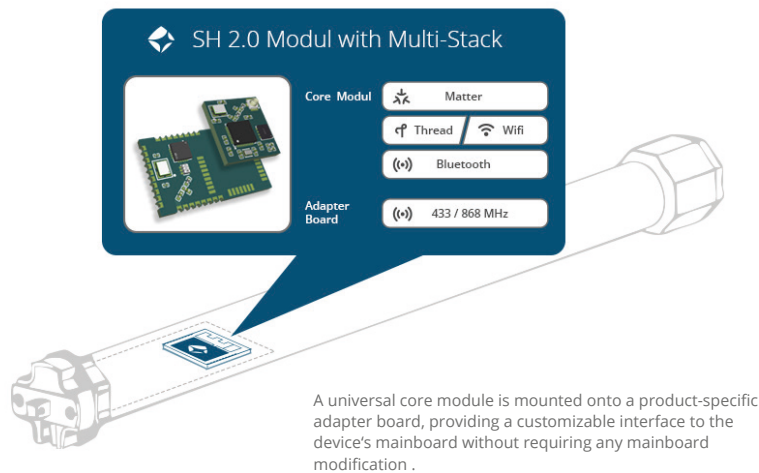
### What is Matter?



Matter is a new technical standard that overcomes the many existing incompatibilities between different brands. For the first time, almost all relevant industry leaders have agreed on a universal language. Thanks to the standardization via Matter, all Matter-enabled devices can be integrated into the global smart home ecosystems of Apple, Google, Amazon, Samsung, etc. (even simultaneously!) and interact there. Thanks to their outstanding capabilities in terms of voice assistants and AI integration, completely new possibilities for efficiency optimization and automation are emerging. With these developments, a disruptive transformation in the building technology industry is being initiated with a quantum leap to Smart Home 2.0.

# MEDIOLA SH 2.0 MODULE WITH MULTI STACK

for building equipment



## SH 2.0 WLAN Core Module

<b>Matter-ready over WiFi &amp; 433/868 MHz</b>	Art.-no.: MSH-2M-WI1, MSH-2M-WI2, MSH-2M-WI3
CPU	RISCV
Wifi	IEEE 802.11 b/g/n
Matter	Matter-ready / Matter-direct
Bluetooth	Bluetooth LE, Bluetooth mesh
Extension (optional)	EUPRO-RF-Protocol with encrypted communication & Update capability via Bluetooth

## SH 2.0 Thread Core Module

<b>Matter-ready over Thread &amp; 433/868 MHz</b>	Art.-no.: MSH-2M-TH1, MSH-2M-TH2, MSH-2M-TH3
CPU   Thread	Cortex-M4   Thread
Matter	Matter-ready / Matter-direct
Bluetooth	Bluetooth LE, Bluetooth mesh
Extension (optional)	EUPRO-RF-Protocol with encrypted communication & Update capability via Bluetooth

## SH 2.0 Adapter Board

<b>required for WLAN- or Thread-Core Module - for flexible integration into various hardware designs</b>	
Interface options	UART, SPI, I <sup>2</sup> C, ...
Extension (optional)	RF-Transceiver for 433 or 868 MHz

## CONTROL / INTERFACE FOR SH 2.0 MODULE WITH MULTI STACK

APP / CLOUD/ API		
Setup, configuration, usage commissioning/ Bluetooth control	mediola connect App for iOS and Android (included, free)	mediola OEM-App for iOS and Android (optional according to style guide)
Cloud-Service (optional)	—	Remote access via OEM-Cloud
API		enables integration into the OEM's own (existing) app

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