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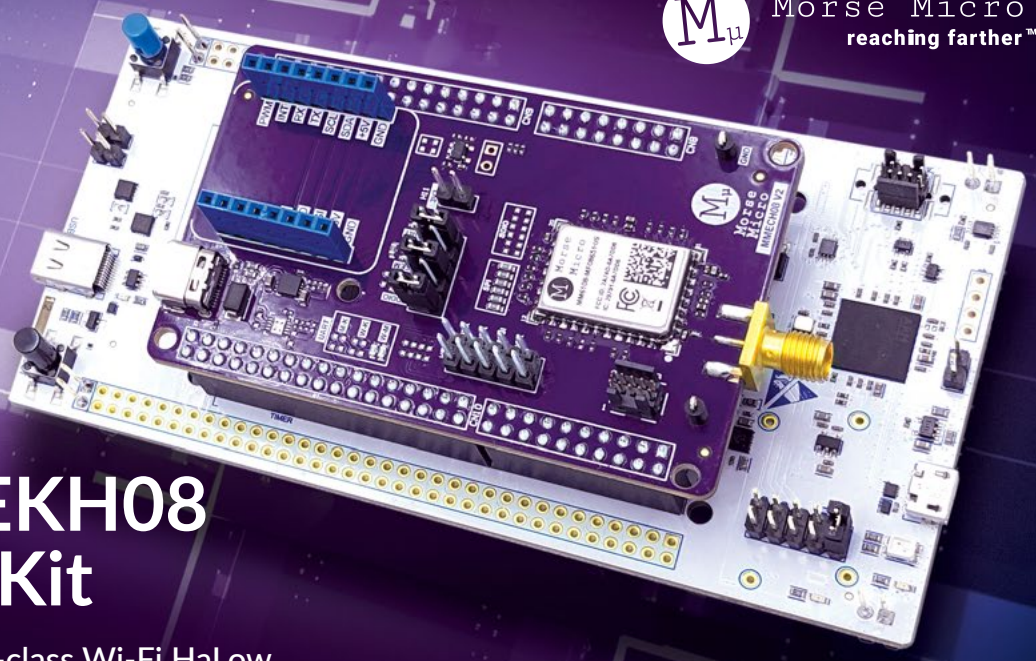


PRODUCT BRIEF

# MM6108-EKH08 Evaluation Kit

Industry-Leading, Best-in-class Wi-Fi HaLow Development Platform Supporting SMPS

## Overview

The MM6108-EKH08-05US-02 evaluation kit is a fully integrated Wi-Fi HaLow® development platform that supports an STMicro development board. This powerful collaboration provides an affordable and flexible way for developers to test Wi-Fi HaLow while delivering superior RF performance and compliance.

The MM6108-EKH08-05US-02 development platform has been designed for Wi-Fi HaLow connectivity in compliance with the IEEE 802.11ah standard. It supports data rates up to 32.5 Mbps with programmable operation between 850 MHz and 950 MHz. The development platform offers several power consumption features including internal or external switched-mode power supply (SMPS) to reduce power consumption in run mode.

### Evaluation Kit

Designed for developers seeking to validate Wi-Fi HaLow use cases for IoT environments, this kit includes the Morse Micro MM6108 SoC as well as the STMicro STM32 NUCLEO-U575ZI-Q board.

Total kit contents include:

- Wi-Fi HaLow shield (p/n: MMECH08) with MM6108 module (p/n: MM6108-MF08651-US)
- STM32 NUCLEO-U575ZI-Q board
- USB cable
- Antenna

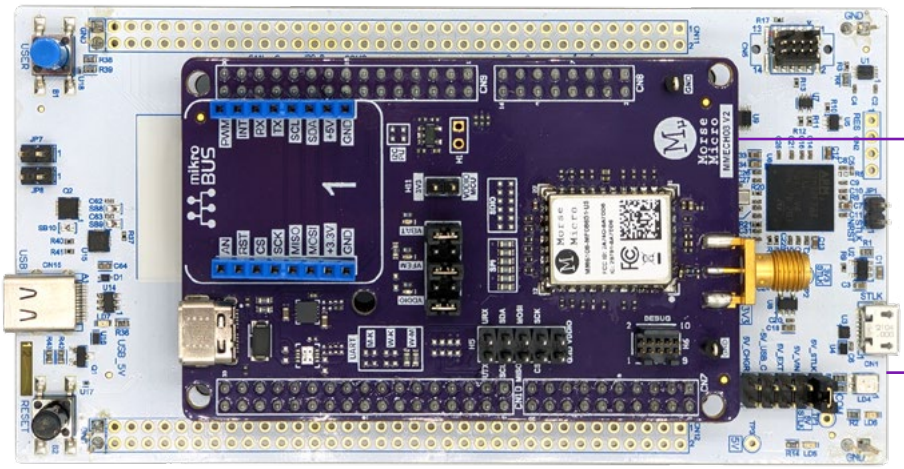
## Features

- Several board connectors including ST morpho, SWD & ST Zip (inc. ARDUINO® Uno V3)
- External or internal SMPS to generate Vcore logic supply
- Supports data rates up to 32.5 Mbps
- Supports a range of integrated development environments (IDEs) e.g. IAR Embedded Workbench® & MDK-ARM
- Flexible power-supply options: ST-LINK USB VBUS, USB connector, or external sources
- Programmable operation in the sub-1 GHz rage (license exempt from RF bands worldwide)
- On-board ST-LINK/V2-1 debugger/programmer with USB re-enumeration
- WPA3 security

## Applications

- Cloud connectivity
- Machine performance monitors and sensors
- Connected vehicles
- Environmental monitoring
- Utility smart meter and intelligent grid
- Industrial automation controls
- Industrial, agricultural and commercial management
- Connected manufacturing
- Smart city networks
- Public safety monitoring
- Logistics and tracking
- Connected healthcare and wearables
- Smart home automation and connected appliances

## Kit Contents



Morse Micro MMECH08 Board

STMicro STM32 NUCLEO-U575ZI-Q Board

## Wi-Fi HaLow Modulation and Coding Scheme

| MCS index | Modulation scheme | Coding rate | PHY rate (kbps) per BW | | | |
|---|---|---|---|---|---|---|
| | | | 1 MHz | 2 MHz | 4 MHz | 8 MHz |
| 10 | BPSK | 1/2 x 2 | 167 | | N/A | |
| 0 | BPSK | 1/2 | 333 | 722 | 1500 | 3250 |
| 1 | QPSK | 1/2 | 667 | 1444 | 3000 | 6500 |
| 2 | QPSK | 3/4 | 1000 | 2167 | 4500 | 9750 |
| 3 | 16-QAM | 1/2 | 1333 | 2889 | 6000 | 13000 |
| 4 | 16-QAM | 3/4 | 2000 | 4333 | 9000 | 19500 |
| 5 | 64-QAM | 2/3 | 2667 | 5778 | 12000 | 26000 |
| 6 | 64-QAM | 3/4 | 3000 | 6500 | 13500 | 29250 |
| 7 | 64-QAM | 5/6 | 3333 | 7222 | 15000 | 32500 |

For more product information: **www.morsemicro.com**



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