

## IoT Solutions from Nuvoton

From basic end nodes, to gateways and cloud services, IoT (Internet of Things) applications require control, networking, encryption and other related technologies. Nuvoton has introduced the NuMaker-IoT-M487 platform for IoT applications supporting Amazon FreeRTOS and Amazon Web Services (AWS) as a qualified platform.

### Features

- ◆ Supports Amazon FreeRTOS
- ◆ Qualified platform for Amazon Web Services
- ◆ FreeRTOS LTS libraries supported
- ◆ Wi-Fi Integration
- ◆ FreeRTOS Build Integration
- ◆ FreeRTOS Console



### Nuvoton M487 Ethernet Series

The NuMicro® M487 Ethernet series is a high performance, low power microcontroller powered by the Arm® Cortex®-M4F core with DSP extension. It can run up to 192 MHz with 175 µA/MHz dynamic low power consumption. Up to 2.5 MB Flash memory and up to 160 KB embedded SRAM includes 32 KB cache to speed up external SPI Flash code execution. The factory pre-loaded bootloader delivers Secure Boot functionality to provide the code integrity check in embedded Flash memory and the built-in Secure Protection ROM provides a safe space for saving confidential program or data.

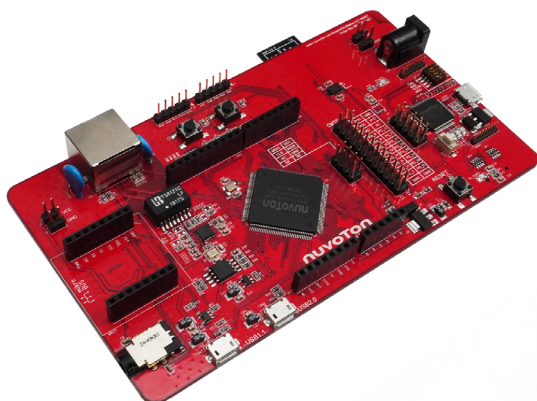
### Key Features of the M487 devices:

- ◆ Arm® Cortex® -M4F, CPU speed up to 192MHz
- ◆ 1.8V to 3.6V operating voltage
- ◆ 175 uA/MHz with dynamic power scaling
- ◆ Up to 2.5 MB zero-wait state Flash memory
- ◆ Up to 160 KB RAM, inc. 32 KB external SPI Flash cache
- ◆ Up to 16-ch, 12-bit ADC
- ◆ Up to 6x UART, 3x I<sup>2</sup>C, 1x QSPI, 4x SPI

### NuMaker-IoT-M487 Development Board

The NuMaker IoT Platform is an IoT application-focused platform specially developed by Nuvoton. It supports Arduino and mikroBUS interfaces, and is ideal for IoT application development and for prototyping designs with sensors and wireless modules. The NuMaker-IoT-M487 also provides Ethernet 10/100 MAC with RMII interface, USB 2.0 FS device/host/OTG, USB 2.0 HS device/host/OTG, and security functions such as tamper detection, symmetric cryptographic accelerator, and secure hash function accelerator.

An Amazon FreeRTOS demo is available to get a simple application connected to AWS in a matter of minutes.



### Applications:

- ◆ Building Automation
- ◆ Industrial Automation
- ◆ HMI
- ◆ Manufacturing
- ◆ Medical Devices
- ◆ Remote Monitoring
- ◆ Security / Access Control