



# M5STACK

## Unit NFC

# 1. Description

The Unit NFC is a high-performance universal NFC peripheral. It features the built-in ST25R3916 chip, utilizes an I2C communication interface, and supports multiple operating modes: reader/writer, card emulation, and active/passive peer-to-peer. It is compatible with NFC-A/B (supporting ISO 14443A/B), NFC-F (FeliCam), and NFC-V (ISO 15693) for reader/writer functionality, as well as NFC-A/NFC-F card emulation. Based on the AFE and frame system, it offers special streaming and transparent modes, enabling the implementation of other custom protocols in reader or card emulation modes. Integrated technologies such as Dynamic Power Output (DPO), Active Wave Shaping (AWS), and Noise Suppression Receiver (NSR) provide excellent anti-interference capabilities and performance. It is suitable for applications such as identity recognition and pairing, as well as universal handheld or desktop reader/writer devices.



## 2. Specifications

| Specification           | Parameters                                                       |
|-------------------------|------------------------------------------------------------------|
| NFC Chip                | ST25R3916                                                        |
| Communication Interface | I2C                                                              |
| Protocol Support        | NFC-A/B (ISO 14443A/B),<br>NFC-F (FeliCam),<br>NFC-V (ISO 15693) |
| Operating Frequency     | 13.56 MHz                                                        |
| Operating Modes         | Reader/writer, Card Emulation, Active & Passive Peer-to-Peer     |
| Frequency Range For CE  | 13.56MHz                                                         |
| Maximum EIRP For CE     | 11.17(dBμA/m) @3m                                                |
| Hardware version NO.    | V1.0                                                             |
| Software version NO.    | V1.0                                                             |



## 3. Quick Start

### 3.1 NFC Test

Connect the Unit NFC to the main testing control device Basic with the conversion board, and burn the test firmware program for testing.



## 4. FCC Warning

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does -cause harmful interference to radio or television reception, which can be determined by

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turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna. — Increase the separation between the equipment and receiver. — Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.