

EMVCo reference design for the ST25R3916B high performance NFC universal device

Features



- Based on the ST25R3916B NFC reader for payment, consumer and industrial applications, in QFN32, 5 mm x 5 mm package
- ISO 14443A and ISO 14443B protocols supported
- Dynamic power output (DPO) and active wave shaping (AWS)
- User selectable and automatic gain control
- 51 mm x 27 mm, four turns antenna etched on the PCB
- STM32L476 32-bit microcontroller with 1 Mbyte embedded Flash memory, with integrated ST-LINK/V2 for programming and debugging
- Micro-USB connector for communication with the host PC and board supply
- Comprehensive device test environment (DTE) for controlling the EMVCo Level 1 firmware
- EMVCo 3.1a L1 compliant

Product status link

[ST25R3916B-EMVCO](#)

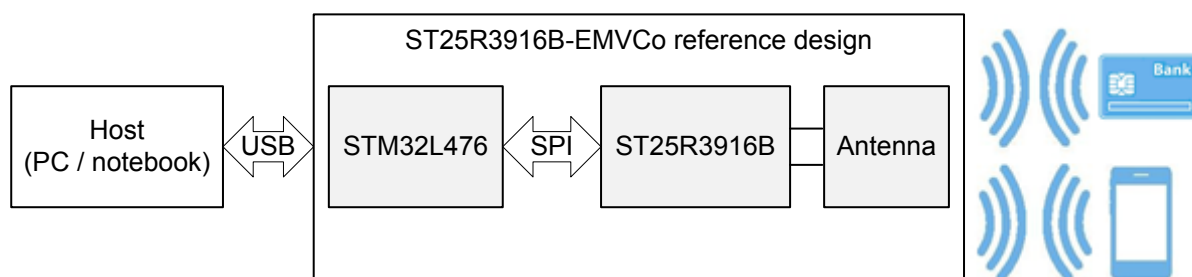
1 Description

The ST25R3916B-EMVCO kit is a reference design representing the contactless part of a payment terminal, including the example code for the EMVCo level 1 stack.

The board is equipped with a small (51 mm x 27 mm) four turns RF antenna, with the option to connect customer made antennas.

The STM32L476 (packaged in a 100-pin LQFP) serves as host controller for the ST25R3916B and the connected peripherals.

Figure 1. Functional block diagram



Revision history

Table 1. Document revision history

| Date | Version | Changes |
|-------------|---------|------------------|
| 19-Jul-2022 | 1 | Initial release. |



Contents

| | | |
|----------|-------------------------------|----------|
| 1 | Description | 2 |
| | Revision history | 3 |
| | List of tables | 5 |
| | List of figures..... | 6 |



List of tables

Table 1.

Document revision history

3

List of figures

| | | |
|-----------|------------------------------------|---|
| Figure 1. | Functional block diagram | 2 |
|-----------|------------------------------------|---|

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