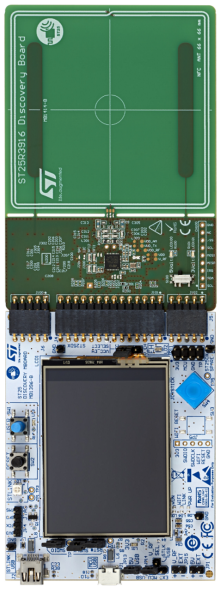
ST25R3916-DISCO

Data brief

Discovery kit for the ST25R3916 high performance NFC universal device and EMVCo reader



Features

- ISO 18092 (NFCIP-1) active and passive initiator and target modes
- NFC Forum NFC-A, NFC-B, NFC-F and NFC-V reader
- ISO 14443A, ISO 14443B and ISO15693 reader
- FeliCa™ reader
- Support of all five NFC Forum tag types in reader mode
- NFC Forum Type 3 tag (NFC-F) host card emulation
- NFC Forum Type 4A tag (NFC-A) host card emulation
- Stream modes to implement other standard and custom protocols
- Integrated capacitive sensing system for low power detection of tag presence
- Integrated inductive sensing system for low power detection of tag presence using phase or amplitude measurement
- High output power
- User selectable and automatic gain control
- Serial peripheral interface (SPI) up to 10 Mb/s
- I2C with up to 400 kbit/s in Fast-mode, 1 Mb/s in Fast-mode Plus
- Automatic antenna tuning (AAT) via variable capacitor

Reference	Order code
ST25R3916-DISCO	ST25R3916-DISCO

1 Description

The ST25R3916-DISCO kit allows the user to evaluate the features and capabilities of the ST25R devices, a series of high performance HF readers.

The ST25R3916-DISCO kit comes with application notes, software applications, drivers, BOM (bill of materials), board schematics, Gerber files and firmware schematics. These documents are downloadable from www.st.com.

The kit is composed of two boards:

1. The MB1396 (ST25_Discovery_Mboard) is a microprocessor motherboard which embeds a 32-bit Arm® Cortex™-M4 CPU with FPU high-performance microcontroller.

Note: Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

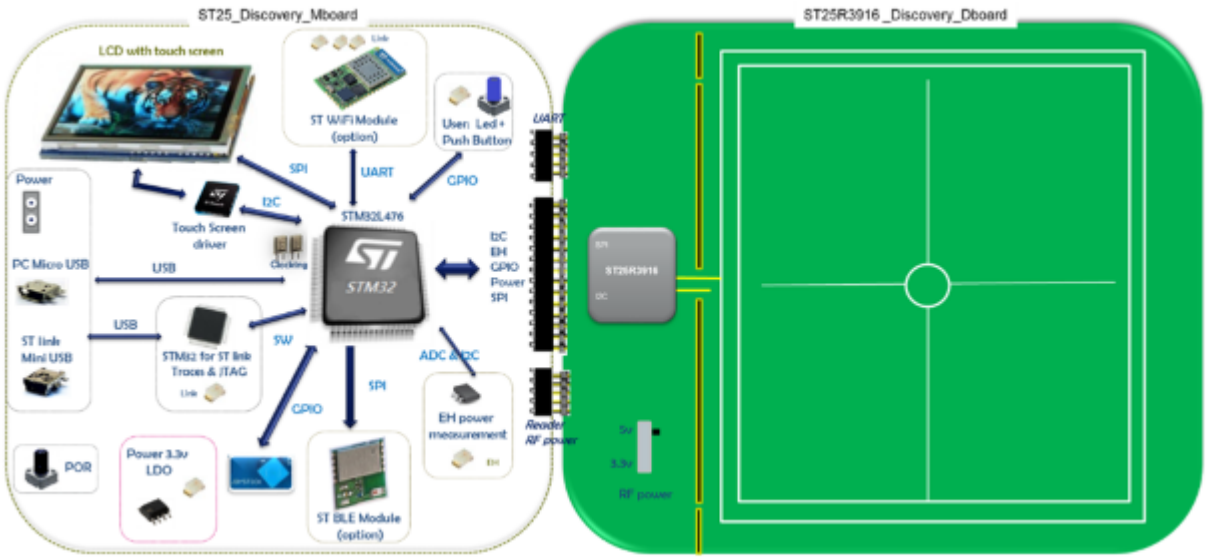
The MB1396 is powered through the USB bus. It is based on an STM32L476 microcontroller and includes:

- An ST-LINK embedded debug tool interface
- A 2.4” TFT LCD with touch screen capability
- LEDs
- Push buttons (reset and user)
- A mini USB debug connector
- A user-dedicated micro USB connector
- Features for ST NFC TAG boards not used with ST25R HF reader series

2. The MB1414 (ST25R3916_Discovery_DB) is a daughter board, which embeds the ST25R3916 a highly integrated HF reader / NFC initiator / NFC target IC and antenna etched on the PCB with its VHBR tuning circuit.

The ST25R3916-DISCO kit (MB1396 and MB1414) schematics, BOM, Gerber files, drivers and firmware sources are downloadable from www.st.com.

Figure 1. Connection scheme and diagram



Revision history

Table 1. **Document revision history**

Date	Version	Changes
07-Jan-2019	1	Initial release.
06-May-2019	2	Updated figure in front page.

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