Features

- Ready-to-use printed circuit board:
  - RX95HF-VMD5 13.56 MHz RF transceiver for NFC A type 4 or ISO18092 tag emulation
  - STM32F103RFT6 64LQFP 32-bit microcontroller, with 768 Kbytes of Flash memory
  - 47 x 34 mm 13.56 MHz inductive antenna etched on PCB and associated circuitry
  - USB miniB connector for board powering
  - LED indicating the presence of an RF field
  - Joystick for menu selection
  - JTAG connector for microcontroller firmware upgrade and debug
  - LCD screen (board MB895)
- USB cable: Type A / mini B
- Associated Firmware and Android application
  - On-board firmware for NFC 14443A Tag emulator (NDEF, URL)
  - Android application for smartphone used as an NFC PCD (firmware uploader)

Figure 1. EVAL-RX95HF RF transceiver board alone

Figure 2. EVAL-RX95HF RF transceiver board with LCD screen plugged
Description

The EVAL-RX95HF is an evaluation kit for RX95HF NFC transceiver. This component is a 13.56 MHz near field communication transceiver for tag emulation and could be used with an NFC Reader (NFC smartphone, CR95HF) to exchange NDEF messages (URI, VCARD, URL) or establish a Proprietary Data exchange protocol communication. The communication protocol is based on ISO/IEC 14443 Type A.

The EVAL-RX95HF is powered through the USB bus. It includes an RX95HF transceiver for tag emulation, a 47 x 34 mm 13.56 MHz inductive etched antenna and its associated tuning components. The RX95HF communicates with the STM32F103RF 32-bit MCU via the SPI bus.

**Figure 3. Functional block diagram**

The EVAL-RX95HF is delivered with the following firmware and software which can be downloaded from http://www.st.com and Google Play:

- STM32 EVAL-RX95HF-application-firmware: on-board demonstration firmware
- Android application RX95HF_application for firmware upgrade

A complete description of the firmware and Android application can be found in application notes posted on ST web site.
Revision history

Table 1. Document revision history

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<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
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<tbody>
<tr>
<td>31-Oct-2013</td>
<td>1</td>
<td>Initial release.</td>
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