

Discovery kit for the M24SR series Dynamic NFC/RFID tag

Data brief

Features

- Ready-to-use printed circuit board (PCB) including:
 - M24SR64-Y Dynamic NFC/RFID tag
 - 31 mm x 30 mm 13.56 MHz double layer inductive antenna etched on the PCB (ANT14)
 - STM32F103RGT6 64LQFP 32-bit microcontroller, with 1Mbytes of Flash memory
 - LCD Color Screen (320*200 pixels)
 - Different color LEDs
 - USB microB connector for board powering

- JTAG connector for microcontroller firmware upgrade and debug
- Joystick for menu selection
- M24SR-DISCO-PREM specific features:
 - Bluetooth module with audio outputs connected to Jack 3.5
 - Headset

Table 1. Device summary

Reference	Order code
M24SR-DISCOVERY	M24SR-DISCO-STD M24SR-DISCO-PREM

Figure 1. M24SR Discovery board (top side, Premium edition)

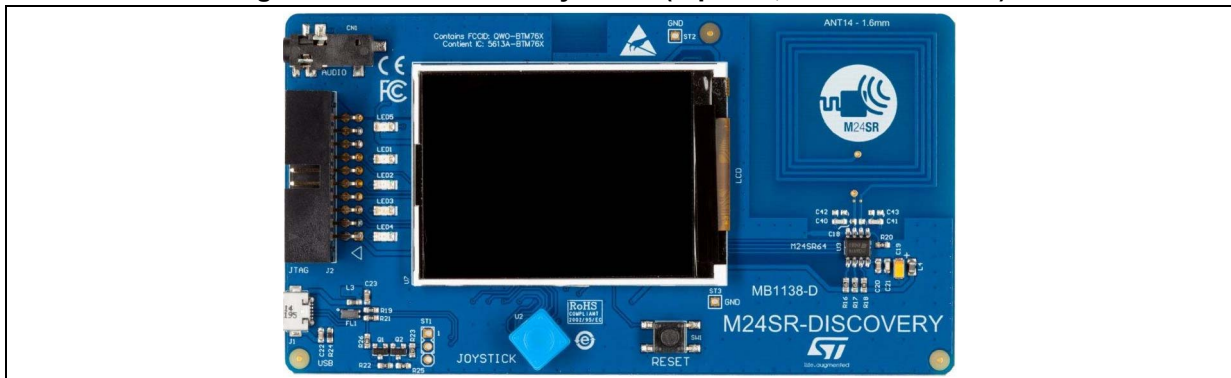
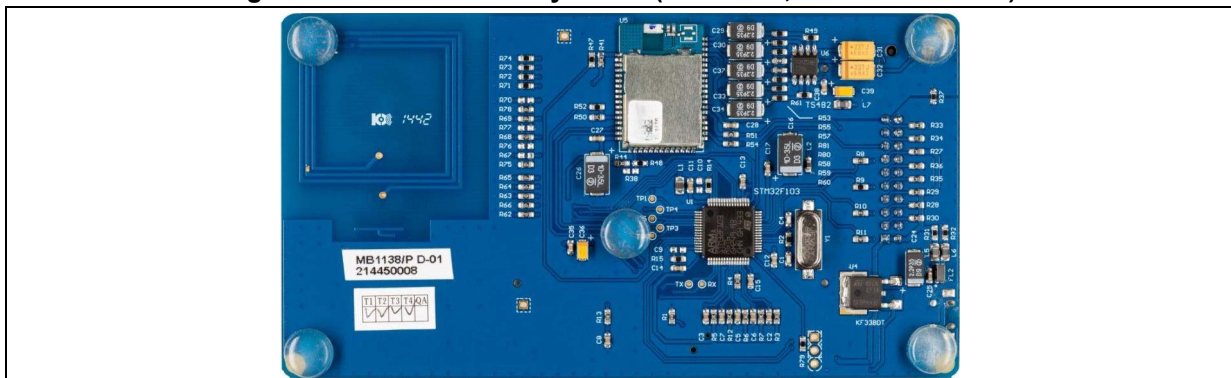


Figure 2. M24SR Discovery board (back side, Premium edition)



Description

The M24SR-DISCOVERY is a demonstration kit to evaluate the features and capabilities of the M24SR series and is based on the M24SR64 device. Two versions of this kit are available: the Standard Edition and the Premium Edition.

The Premium Edition includes all of the Standard edition features, plus a headset and a Bluetooth module to demonstrate the convenience to pair it with a smartphone via NFC.

The M24SR64 device is a dynamic NFC/RFID tag IC with a dual interface. It embeds a 64 Kbits EEPROM memory. It can be operated from an I²C interface or by a 13.56 MHz RFID reader or an NFC phone.

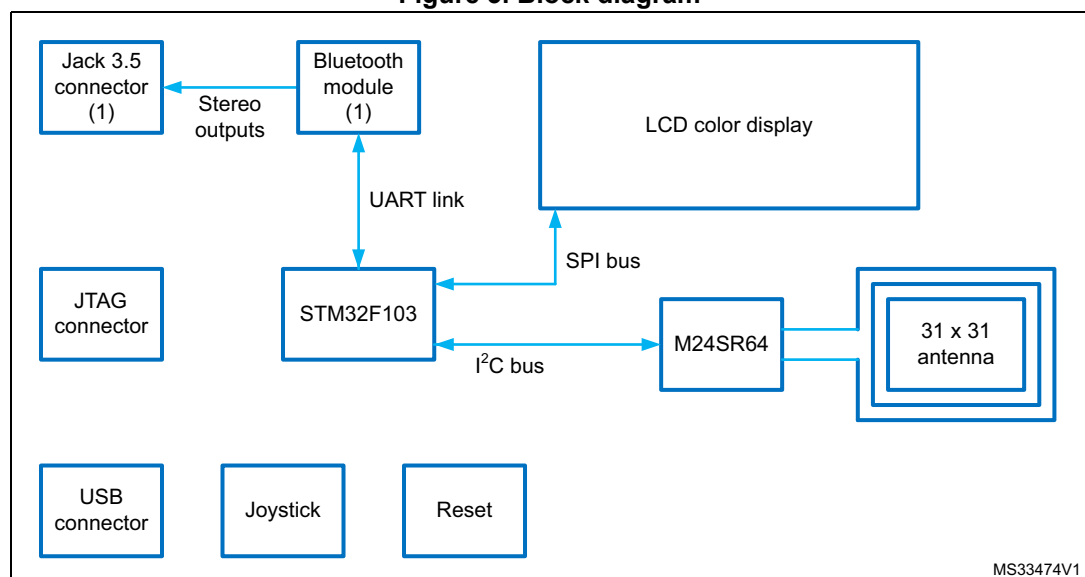
The I²C interface uses a two-wire serial interface, consisting of a bidirectional data line and a clock line. It behaves as a slave with respect to the I²C protocol.

The RF protocol is compatible with ISO/IEC 14443 Type A and NFC Forum Type 4 Tag.

The board is powered through the USB bus. It also includes a microcontroller STM32F103 to drive the EEPROM via I²C and the LCD screen via SPI bus.

The M24SR-DISCOVERY (MB1138) schematics, BOM, gerber files, drivers and firmware can be downloaded from www.st.com.

Figure 3. Block diagram



1. Available only on premium edition.

1 Revision history

Table 2. Document revision history

Date	Revision	Changes
06-Jan-2014	1	Initial release.
11-Feb-2014	2	Introduced M24SR-DISCO-PREM features with specific bullet in Section : Features .
08-May-2015	3	Updated Figure 1: M24SR Discovery board (top side, Premium edition) Updated Figure 2: M24SR Discovery board (back side, Premium edition)

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2015 STMicroelectronics – All rights reserved

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [RFID Transponder Tools](#) category:

Click to view products by [STMicroelectronics](#) manufacturer:

Other Similar products are found below :

[SP-MX-08-HF-M2](#) [V700-A43 10M](#) [WF-SM-30](#) [V700-A44 20M](#) [V680-A81](#) [V680-A60 2M](#) [WS02-CFSC1-EV3](#) [V680-A60 5M](#) [V680-HAM91](#) [V680-A60 10M](#) [V700-A46 50M](#) [V680S-HMD66-ETN](#) [MEDP-MF-RFID-R10](#) [ST25-TAG-BAG-U](#) [MIKROE-3644](#) [MIKROE-2395](#) [1482](#) [MIKROE-2462](#) [2800](#) [2802](#) [X-NUCLEO-NFC05A1](#) [359](#) [360](#) [361](#) [362](#) [363](#) [365](#) [3781](#) [789](#) [884](#) [4032](#) [4034](#) [4043](#) [4429](#) [4701](#) [AS3980-QF_DK_ST](#) [AS3930](#) [DEMOSYSTEM](#) [AS3953-DK-TAGS](#) [ATARFID-EK1](#) [ATARFID-EK2](#) [EVB90109](#) [MIKROE-3659](#) [MIKROE-3971](#) [MIKROE-4208](#) [MIKROE-1434](#) [MIKROE-1475](#) [MIKROE-1726](#) [MIKROE-262](#) [MIKROE-4309](#) [13429-6001](#)