eGM-NFC-S68 NFC Reader Brief

1. INTRODUCTION

RF frequency 13.56Mhz eGM-NFC-S68 is a good functionality NFC module which is produced by EGIGATEK. It contains STM32F401 MCU and NFC transceiver ST95HF chip in it. AT command layer is provided in firmware and user can send/receive the AT command on UART for running NFC functionality.

2. FEATURES

General features

eGM-NFC-S68 operating modes supported:
- Reader/Writer
- Peer-to-peer communication (optional)
- Card emulation (SWP-UICC/eSE based)

Hardware features

- 3.3V power supply
- Cotex-M3 STM32F401 core for embedded firmware
- UART interface provided for AT command
- External antenna provided (optional)
- SWP interface provided for external SWP-SIM
- Peripherals provided for user 2nd development:
- 1 UART, 1 I2C, 1 SPI, 1 USB OTG, 1 SDIO, GPIOs.
- Reset pin provided
- SWD debug interface provided
- 1 LED for status indication
- Compact size : 20.0 x12.0 x1.9mm

Software features

- High quality commercial NFC stack in firmware
- NFC-Forum specification compliant: ISO14443 A/B, ISO14443 – 4, Felica, ISO15693, NDEF
- AT command set supported to operate NFC.
- Trace output provided
- FW download supported
- FW library can be provided for user 2nd development if requested

RF communications

- ISO/IEC 14443 A&B in both PICC (Public Information Coordination Centre) and PCD(Personal Communications Device) modes
- ISO/IEC 15693 in VCD (Vicinity Coupling Device) mode
- ISO/IEC 18092 (NFCIP-1)
- NFC Forum tags types 1 to 4 supported (Topaz®, MIFARE® Ultralight, Jewel®,FeliCa™ Open Tag, ST23YR18/80 with Type 4 applet)

3. General specification

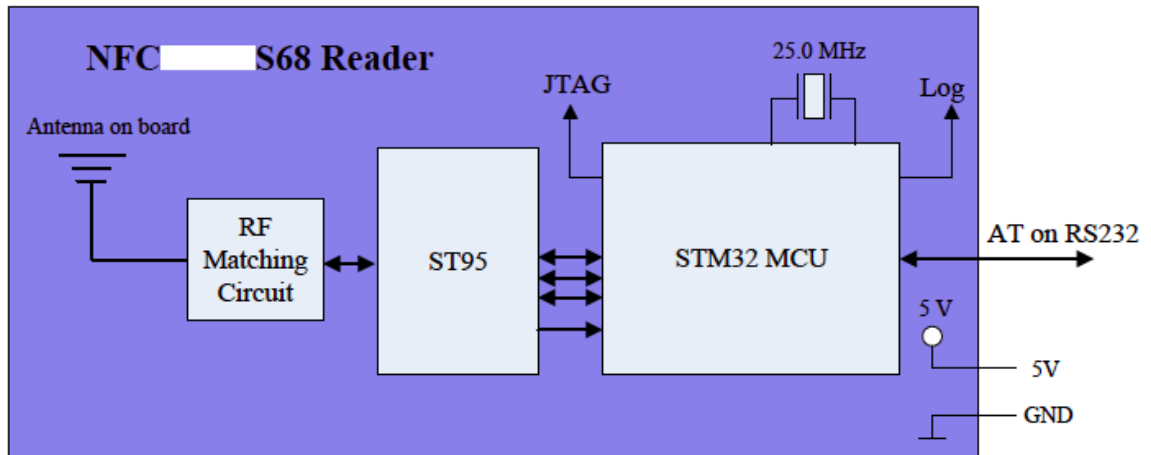|	
Model No.	S68 NFC Reader
Operation frequency	13.56 MHz
Operation Voltage	DC 5V
Standby consumption	< 20 mA
Operation consumption	< 200 mA
Communication rate	115200bps
Sensing distance	＞5cm（depends on Tag size and antenna design）
Communication port	RS232 DB9 Port
Operation temp.	-20℃ ~ 80℃

Storage temp.	-25℃ ~ 85℃
Module size	70 * 100 mm

4. BLOCK DIAGRAM

5. APPLICATIONS

The eGM-NFC-S68 can be used in different applications:

- Kiosks/Ticket machine
- Cars
- Printers
- Industrial application
- Home application
- Electronic Locks
- Metering
- Medical Devices
- Machinery
- Check-in

6. Physically Dimension

Pin	Signal		Pin	Signal
1	TX		22	GND
2	RX		21	UART2_RX
3	SPI_CLK		20	UART2_TX
4	SPI_SS		19	+3V3
5	SPI_MISO		18	NRST
6	SPI_MOSI		17	I/O1
7	I/O3		16	I/O2
8	UART1_TX		15	I2C_SCL
9	UART1_RX		14	I2C_SDA
10	UART6_TX		13	PB8
11	UART6_RX			
12	GND			

20.00 mm

12.00 mm

PAD 0.63 x 1.0mm