SmartChip SMC5238 RFID Reader User Manual

Contents

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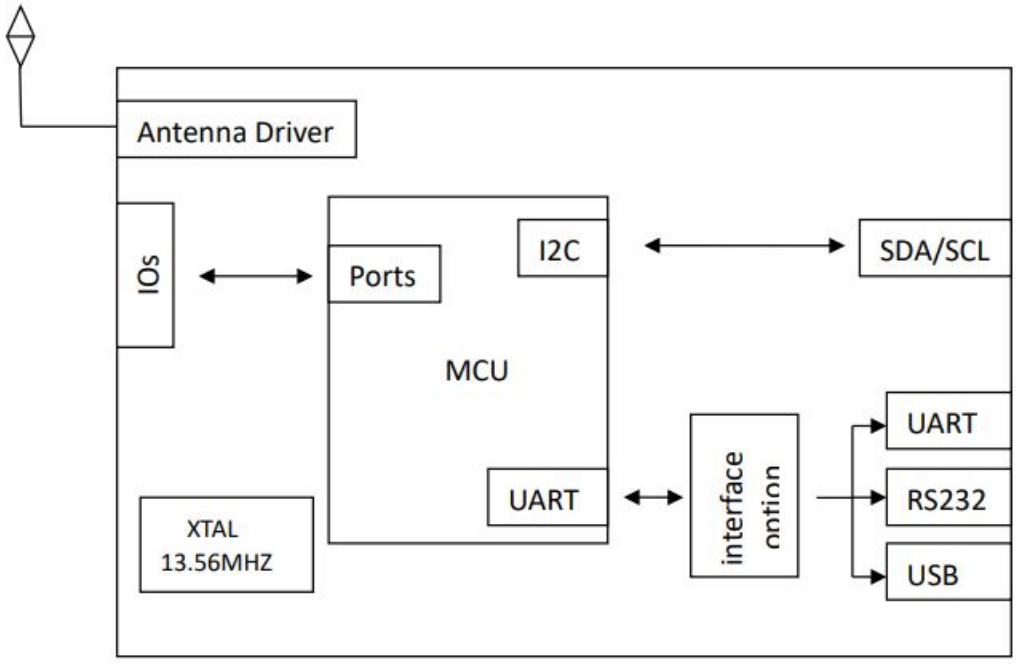
Block diagram

Block diagram of SMC5238 Module
SMC5238 module implements a demodulator and decoder for signals from NFC-compatible cards and transponders. SMC5238 module could also read and write NFC cards



SPECIFICATION

MCU: 8051MCU built-in SMC5238 chip. features are listed below:

- 6-clock cycle CPU.
- ROM interface
- Clock module to control CPU clock during Shutdown and Wake-up modes
- Port module interface to configure I/O pads

- Interrupt controller
- Debug UART

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, under Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used under the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, under part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used by the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment of and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module: KDB 996369 D03 OEM Manual v01 rule sections:

List of applicable FCC rules
This module has been tested for compliance to FCC Part 15C

Summarize the specific operational use conditions
The module is tested for standalone mobile RF exposure use conditions. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

Limited module procedures
Not applicable.

Trace antenna designs
Not applicable.

RF exposure considerations
This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

Antennas
The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and users.

Antenna Type	Loop antenna
Antenna connector	NA

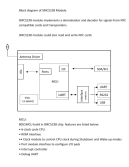
Label and compliance information
The end product must be labeled in a visible area with the following: “Contains FCC ID: 2BBN4SMC5238 The grantee’s FCC ID can be used only when all FCC compliance requirements are met.

Information on test modes and additional testing requirements
This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

Additional testing. Part 15 Subpart B disclaimer
This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter tests will not be required. However, the OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed.

Documents / Resources

	SmartChip SMC5238 RFID Reader [pdf] User Manual SMC5238 RFID Reader, SMC5238, RFID Reader, Reader

References

- User Manual