## RC522 chip:

MF RC522 is applied to the highly integrated read and write 13.56MHz contactless communication card chip, NXP launched by the company for the "table" application of a low-voltage, low-cost, small size of the non-contact card chip to read and write, smart meters and portable handheld devices developed better choice. The MF RC522 use of advanced modulation and demodulation concept completely integrated in all types of 13.56MHz passive contactless communication methods and protocols. 14443A compatible transponder signals. The digital part of to handle the ISO14443A frames and error detection. In addition, support rapid CRYPTO1 encryption algorithm, terminology validation MIFARE products. MFRC522 support MIFARE series of high-speed non-contact communication, two-way data transmission rate up to 424kbit/s. As new members of the 13.56MHz reader card series of highly integrated chip family, MF RC522 MF RC500 MF RC530 There are a lot of similarities, but also have many of the characteristics and differences. Communication between it and the host SPI mode helps to reduce the connection narrow PCB board volume, reduce costs.

## **RFID** module:

The MF522-AN module the the original Philips MFRC522 chip design circuit card reader, easy to use, low cost, and applies to the user equipment development, the reader and the development of advanced applications, the need for the user RF card terminal design/production. This module can be directly loaded into the various reader molds. Utilizes a voltage of 3.3V, through the SPI interface simple few lines directly with any user CPU motherboard connected communication can ensure that the module is stable and reliable work, distance card reader.

## **Electrical parameters:**

1. Operating current :13-26mA/DC 3.3V

2. Idle current :10-13mA/DC 3.3V

3. Sleep current: <80uA</li>4. Peak current: <30mA</li>

5. Operating Frequency: 13.56MHz

6. Supported card types: mifare1 S50, mifare1 S70 MIFARE Ultralight, mifare Pro, MIFARE DESFire

7. Product physical characteristics: size: 40mm×60mm

8. Environmental Operating temperature: -20-80 degrees Celsius

9. Environmental Storage Temperature: -40-85 degrees Celsius

10. Relative humidity: relative humidity 5% -95%

11. Module interfaces SPI Parameter

12.Data transfer rate: maximum 10Mbit/s

## Package included:

1 x Mifare RC522 Card Read Antenna RFID Reader IC Card Proximity Module New