Circuit Description

The RDM880/RDM830/RDM810 module is a ISO14443 A,B and ISO15693 read/write device with a typical operating distance of 50-100mm. The reading range of the module is depending on the antenna and TAG. Also printed circuit board antennas are supported.

The RDM880/RDM830/RDM810 combines all basic functions to access the ISO14443A,B and ISO15693 Card. Including Mifare® Smart Card, TI Card, EM Card etc. Its versatility allows a flexible and efficient application in different configurations and system devices. Because of the small size the module can be integrated easily into existing data collection applications such as portable terminals, ticketing, machines vending or access control.

The 13.56MHz RDM880/RDM830/RDM810 read/write module is a very compact device designed for fast integration into portable or stationary readers.

The module was designed for simple integration. The serial TTL-interface or SPI interface can be directly connected to microprocessors and easily converted to the RS232/RS485/RS422 serial interface device. The protocol can be tested using any terminal.

Basic principle description:
According to ISO14443A/B, ISO15693 standard, the Microprocessor(U1) and Basic frequency(13.56MHz) state(X1) will generate a specific signal, Amplifer(U2) the signal and sending out through antenna circuitry.

The ISO14443A/B, ISO15693 card will get a response information for identification while it approach the transmit antenna. The receiver circuitry part will be accepting & transform it, and inform the microcomputer as well. The microcomputer based on the set program to read & write the card to fulfill the specific function.

The performance of specific program setting & function is fulfilled by interface circuitry. This could be done via the smart connection between interface circuitry & computer or others smart device.

Status output indicated the status during the operation, the operation process could be monitor and show the operation is correct or not.

Concluded above details for RDM880/RDM830/RDM810, the modules with integrated function, fully compliance with ISO14443A/B,ISO15693 contactless card international standard for read & write.