NFC MOUSE CIRCUIT DESCRIPTION

The NFC mouse is a full speed USB compound device. It has mouse function and RFID Reader function.

The NFC mouse's main micro controller is MC98JW32(Freescal), an USB full speed IC。

The RFID Reader PN531 (Philips) is a highly integrated transmission module for contactless communication at 13.56MHZ, ASK modulation. It uses a simple outside directly matched antenna to work. The antenna components have three parts: 1.A receiving circuit to receive data sent by the Tag. 2. A filtering and impedance transformation circuit suppresses higher harmonics and optimizes the power transmission to the reader antenna.3.A matching circuit for the antenna coil to achieve the best performance and the antenna coil itself has to be designed.

MCU controls optical mouse sensor ANDS2051 (Agilent IC), and Reads data from it. At the same time, it will read commands from host(through USB bus) and send them to the RFID Reader IC PN531(through SPI port) to control it reading and writing contactless TAG, then reading response of PN531 and back to host(through USB bus).