# EXHIBIT 2

## Theory Of Operation Statement

## Antenna Description

The antenna is a tuned LC circuit. It is made of an approx. 8" diameter coil and series capacitors tuned to peak the antenna current at 134.2KHZ.

## Operational Description

The FS2001F reader is designed to read RFID transponders that operate at a frequency of 134.2KHZ. The reader sends out a magnetic field through the antenna at that frequency. Using the same antenna, the signal is received back from the transponder, sent through filters, and decoded by the microprocessor. The resultant transponder ID is then displayed on the LCD and can also be stored in memory and/or sent out the RS232 port to a host computer. The reader is designed to operate on an internal rechargeable battery or an external supply/charger connected to AC.

## Grounding Description

All cables have shielding that is hooked to frame ground. The frame ground is connected to AC safety ground when running on the power supply/charger. The reader enclosure is also connected to frame ground. The DC ground is connected to frame ground through a 100K ohm resister in parallel with a .01 MFD capacitor located on the CPU

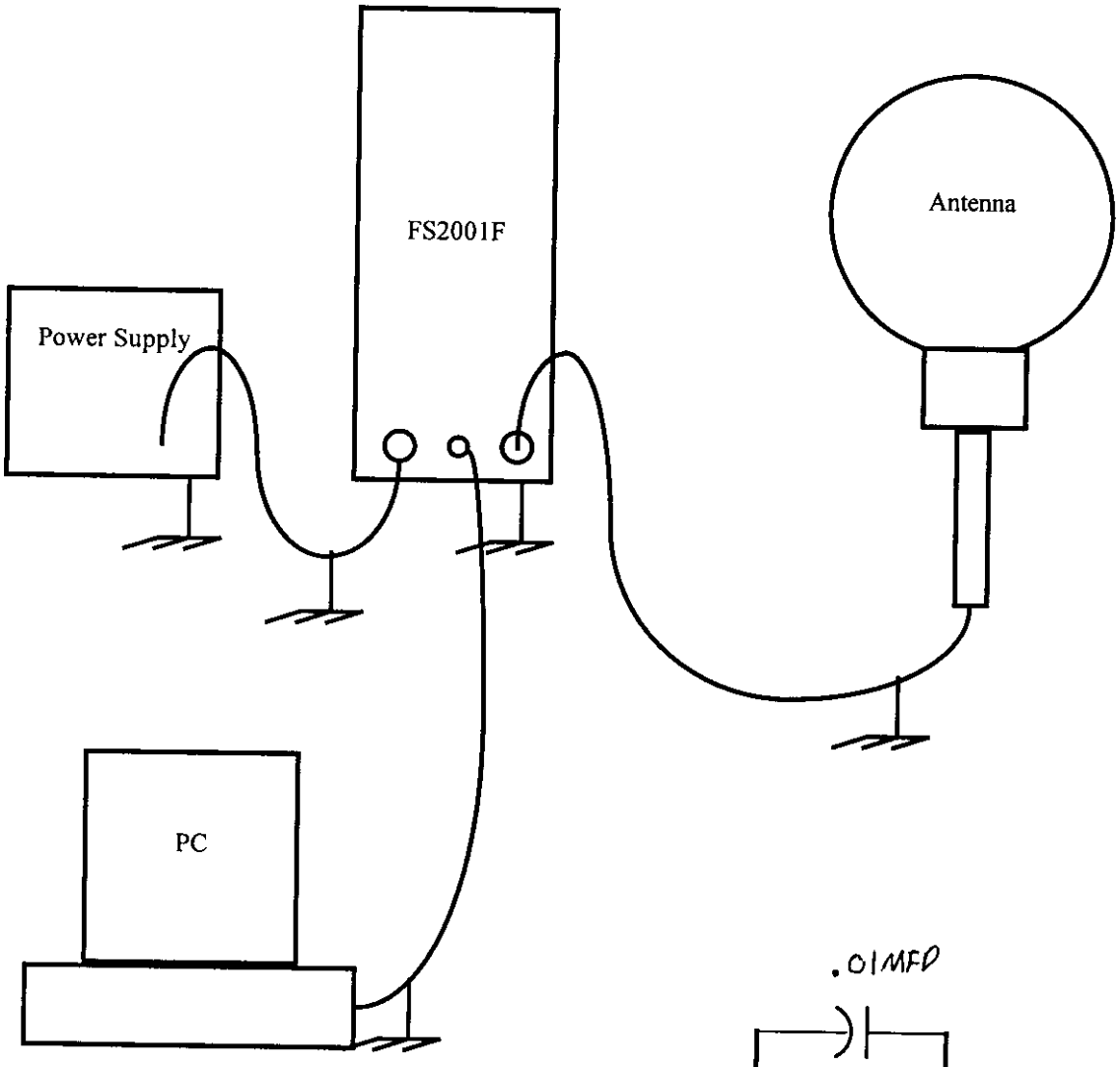
# FS2001F Circuit Functions

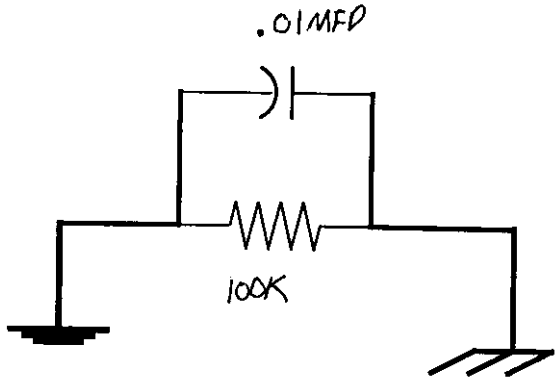
## CPU Board

The CPU board contains the microprocessor and support circuitry for I/O functions such as serial communications, LCD display, and keypad scanning. It also contains the memory for storing operating parameters and RF tag ID's. The CPU also generates the 134.2KHZ signal by dividing the main clock signal by 256.

## Analog Board

The analog board contains the circuitry for driving the antenna circuit and the receive filters for retrieving the signal back from the antenna.


FS2001F
Antenna
Power Supply
PC


.01MFD
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