Operational Description

1. Organization and summary

1) Included : a. Transmitter
b. Receiver

2) Summary

This products is for keyless entry for doorlock and use 447.3625 MHz.
Main function is the door lock/unlock.

2. Circuit

1) Transmitter

The micom operates as the power is supplied if it pushes a remote controller button.
Micom send a FSK data to the oscilator.
The oscilator takes FSK data and sends TX data to Q1 for 3 seconds.
The Q1 is RF POWER Amplifier.

2) Receiver

When ENABLE Pin provides "Low" signal, power is supplied to Receiver.
When receiving frequency(447.3625 MHz) caused from Antenna comes in through FILTER.
When receiving frequency comes into FILTER, only the required substitute receiving frequency goes through by tuning circuit of RF LNA, and entered to Q1,Q2,Q3 is internal amplification circuit.
The frequency is mixed with LOCAL OSC by Q3 and comes out to the second FILTER, and filtered again by 10.7MHz FILTER.

The local frequency(FL) is oscillated as the frequency deducted 10.8 MHz from Receiving Frequency.

Again, Receiving Frequency is converted to Audio signal by the Internal Filter, 2 nd filtering and down converting by 455khz.
And then it comes out to the Internal COMPARATOR and it makes the voltage filtering change to Data signal.
This data signal is entered to the BUFFER AMP and comes out to the MAIN CONTORLLER BOARD by FSK DATA Pin.
The FSK signal data rate is 1200~4800bps, it works for door lock or unlock signal.
FSK signal data has 5 byte, 1header byte, 1custom byte, 3 ID and data byte.