

GDDM-3000 Mouse Functional Description

1. Motion Detector : semi-optical detector for X and Y axial operation (mouse moving)
2. Wheel Detector : BI-direction encoder for Z axial operation (scroll rotated)
3. DIP SW : 8bit DIP switch bit 1-4 set RF channel, bit 5-8 set user ID
4. 2.4GHz Tx RF module : Transmitter module for 2.4GHz ISM band
5. DC/DC Converter : converter battery to a stable 3.0 volt.
6. Bottom Detector : mouse Right, Left, Middle bottom detector
7. Battery Low Detect : Detect the battery status, When the volt below 2.0 volt then send a battery low signal to uP.
8. Micro-controller: Encode and Packet detected data to transmitter.

Operation flow :

1. The uP detect X, Y, Z, Bottom and battery status.
2. The uP add ID data then package the information to protocol format
3. Coding the data to Manchester format for RF transmission.
4. Send coded data to RF Module by DIP switch assigned channel.
5. The RF module sends the data by FSK method at 2.4GHz ISM band.