CHAPTER 5

CONCLUSION

5.1 Summary

Overall the project is consider successful; up to date it can meet the requirement of transmitting data instruction from computer peripherals using infrared wireless The transmission of the signal of the IR is standardizing accordingly to the IRDA association. The transmission is implemented using 40KHz. transmission rate. As for the mouse and keyboard, the coding standard which is regulated by ISR is maintained.

5.2 Overall Achievements

Computer Peripheral	**Planned Objective**	**Achieved Stats**
Mouse	Transmission length 1.0-1.5m	Transmission Length 0.237m
Keyboard	Transmission length 1.0-1.5m	Transmission Length 0.194m
Printer	Transmission length 2.0-3.0m	Not achieved

5.3 Goals Achieved:

- .Transmission via infrared for computer peripheral is successful.
- Successful implemented the compability of the keyboard which match the standard I/O controller UART transmitted via infrared.
- The ADNS which control the sensor of the optical mouse is matched with the MA6221-Q17K controller to transmit the signal via infrared. is compatible to the UART IC implanted in the CPU.

5.4 Goals not achieved

- Transmission between all the stated computer peripherals is limited
- The infrared transmission speed to match the USB 2.0 can not be done. Conversion is only made possible by purchasing the related cable which is available in market.
- The printer receiver can't received transmission from its transmitter.

5.4 Transmission standard of the input IC

Transmission of the device is significantly based on the oscillation input of the three IC, in order to stabilize the device. There is no luxury to choose the crystal to be used, as the component is generate the related frequency which is specialized for the IC is being determined by the IC its own. The IC will be totally un function able, if the wrong crystal devices is being implemented These three different IC is supported by 76.8K for the mouse, 36.768K for the keyboard, 11.0592MHz for the printer.

5.5 Data transmission efficiency

These transmitter and receiver of the computer peripheral are all implemented with a voltage reference, in order to ensure the transmission viability and protect the component. A high variation of current in the circuit will destroy the component IC completely, thus causing malfunction and affect the cause of in genuine transmission that will disrupt the whole process. For the parallel port input ,a few pull up resistor is connected as to integrate the accuracy of transmission and decreases the error that will occur to the most minimum. Overall the project has achieved its goal of transmitting instruction data via infrared from computer peripherals .The only demerit is signal of the transmission length has a lot of room for improvement ,in order to gain a better transmission and acceptance from the receiver.

5.6 Recommendation of future project

For future project there should be several points that should be under consideration. Firstly the amplification of the photodiode should be large enough to support the instruction of the data being send. Second is the need to source for a new kind of photodiode which can increase the transmission length of the device.

5.7 Commercialization potential

There are lots of commercial communication products which uses infrared for transmission purposes. For instance PDA, Laptop, Hand phone. All these devices have implanted infrared implanted communication.

There are great potential to commercialize this project. What it is needed is to increase the transmission length of the device and the size of the device. If amplification of the device without using an inter booster, can provide a transmission length 500m which is more powerful than the blue tooth ,then the product will be worthy for most of the computer.

Secondly we can link the entire infrared transmitter from the office from fax machine, printer mouse and keyboard etc and create an infrared communication network to increase the effectiveness of communication within the staff in the office block. This infrared network product will surely increase the efficiency in the office.