The BCM2042 on-chip keyboard scanner is designed to sample the keys and store them into buffer registers without the need for the host micro controller to intervene. A state machine of three states – Idle, Scan, and Scan-End – controls the key scan block.

The on-chip mouse signal decoder is designed to sample autonomously two quadrate signals commonly generated by opto-mechanical mouse apparatus. The GPIO signals can be used to control such items as LEDs and external ICs (eg. optical mouse sensor).12

Description of hardware circuit component

-Bluetooth Module:Bluetooth module include one pc Bluetooth chipset, gathering radio frequency and basic parts,1pc Flash memory, as the firmware of saving each protocol stack of the Bluetooth mouse.

-Optical Sensor: Using Agilent's optical sensor ADNS-5030, with high optical resolution of the LED, and the work frequency is 24MHZ

-Power Supply:Uses two AAA Batteries, and constant pressure chipset, output of work voltage are 3.3v and 1.8v, driving work for Bluetooth module and optical sensor.

-Low power supply management: Come with particular power managing software, indicates the power capacity in Microsoft Windows System automatically,transfer to the Bluetooth controller of the computer and the computer can indicate customer to replace a new one t, make sure their nomal working.

-Mouse Scroll Wheel: the data intercepted by mouse scroll wheel will directly transfer to releated PIO in Bluetooth module, then processing via Bluetooth's Firemware.

- LEDs: The OLED can indicate the work status of Bluetooth Mouse.

- Buttons: Mouse Button, including 5 buttons mouse and 3 buttons mouse. One contect with controll button, reset the system of Bluetooth Mouse.

- Hardware Debug renew: The SPI interface on the Bluetooth module can debug, renew the Firemware and code of kinds of Bluetooth agreement.