General Description

The HM8452 Mouse Controller is specially designed to control PS/2 mouse device. This single chip can interface three key-switches and four photo-couples direct to 8042. HM8452 can receivecommand and echo status or data format which are compatible with IBM PS/2 mode mouse.

Key debouncing circuit is provided to prevent false entry and improve HM8452 accuracy.

In the conventional mouse, a great number of noises are generated when the grid is partially closed or opened. These noises are usually mistaken for movement signals by conventional mouse controller and the cursor of the display screen is thus moved frequently up and down or back and forth. This will consumes a great amount of energy. The HM8452 PS/2 mouse controller provides noise immunity circuits to eliminate these noises in order to reduce energy consumption.

Using the auto-speed adjusting circuits, HM8452 promotes the power of the mouse in movement. When HM8452 moves at low speed, it will be very smooth. While at high speed, HM8452 can change the scanning ability of the motion and detects more dots than that of at low speed. According to different speed, the horizontal and vertical counters acquire different dots in the same distance.

Features

* Being compatible with PS/2 mouse mode.
* Including buyer's testing mode.
* Auto speed with dynamic resolutions.
* Built-in noise immunity circuit.
* Low power dissipation.
* Both RC oscillating and crystal oscillating circuits provided.
* Three key-switches and four photo-couples inputs.
* Both key-press and key-release debounce interval 11 ms.
* Through three key-switch inputs, HM8452 can exert seven different output.
* The motion detector of the HM8452 could sense 8 m/sec maximum with 200 DPI wheels.
* PIN to PIN compatible with HM8450.
* Improved ESD protection.

Applications

* Optical mouse or pen-mouse.
* Mechanical mouse or pen-mouse.
* Optomechanical mouse or pen-mouse.
* Mechanical track ball.
* Optomechanical track ball.