

Operation Description

(TX PART)

1. Sensor IC- The WT-8589S is based on Optical Navigation Technology, which measures changes in position by optically acquiring sequential surface images (frames) and mathematically determining the direction and magnitude of movement.

The WT-8589S contains an Image Acquisition System (IAS), a Digital Signal Processor (DSP), and a two wire serial port (SPI).

The IAS acquires microscopic surface images via the lens and illumination system. These images are processed by the DSP to determine the direction and distance of motion. The DSP calculates the Δx and Δy relative displacement values.

An external microcontroller reads and translates the Δx and Δy information from the sensor serial port into PS2, USB, or RF signals before sending them to the host PC.

2. The **MA3803** solution is to use the mouse 2.4G MosArt new highly integrated IC H38, hardware integration MCU, RF circuit, LDO, Voltage detector ..and other components, the fastest transmission speed up to 1.5Mbps.

The **H383** highly integrated solution is designed to reduce the number of peripheral components, the solution provide customers with the best choice.

The **MA3803** is designed to support sensors that are mainly to support PixArt/Avago sensors. And the **MA3803** is capable of driving up to 6 key-buttons that are L, M, R, FB, BB, DPI+ keys.

The **MA3803** can work with the **MA64101-5/MA64101-6** to be a pair of RF mouse or KB+MS solution.

Features

2.4G SOC chip built-in 2.4G RF transceiver

Input Voltages of 1.8V ~ 3.6V (built-in 1.8V LDO)

Built-in 1.8V LDO

Built-in Battery low detector

FSK modulation type

1M bps air-protocol, 2 ways

34 RF channels, 24 bits IDs

Supports Z wheel function

Supports 6 keys function : L, M, R, FB, BB, Dpi+ keys

Support SPI sensors:

PixArt :

PAN3204, PAN3204L , PAN3204UL, PAN3205

Avago :

A3000, A5030(WT8503), A5090(WT8589)

Others :

WT8xxx series, MX8630/8640, OM15

Built-in 8k bytes OTP-ROM.

Built-in 2K bytes SRAM.