CIRCUIT DESCRIPTION

U2 is a optical sensor with a 18.43MHz working frequency which was supplied by crystal Y2. U2 communicates to U1 (mouse controller) in 2 signal channels, SDIO and SCLK which control serial data signal and clock of optical sensor. C12, the capacity is used as a filter. D3, the LED scans the surface, the optical sensor process this information to voltage signal and transmit it to U1.

U1, the mouse controller encode the data, then modulate the data with a complete set of FSK modulation, send the modulated signal to RF antenna. Y1, the 27.042MHz crystal C1, C3 and L2 consist a oscillator supply the working clock and the modulated frequency for U1.

Because the room inside the mouse is very limited, the antenna is a stripline in the printed circuit board. There is no external ground connection. The ground is only the printed circuit board. Electric current is supplied by a 3.7 V, 550mAh Li-ion charging battery.