Operation Description

FCC ID:2AFEJ-HWT19A

Model Name:Q11K V2

The device under test is an active electromagnetic wireless pen tablet.

The system includes: the main control MCU, the antenna to receive electromagnetic pen signal, electromagnetic pen, operational amplifier, wireless transmitter module RF, wireless receiver module RF . The system is powered by a rechargeable lithium-ion battery with a nominal voltage of 3.7V.

Pen Tabletworking process: the tablet antenna receive electromagnetic signals emitted by electromagnetic pen, and get the corresponding coordinate of the electromagnetic pen after the operational amplifier and main chip processed the signals. The data after processing will be sent to wireless transmitter module RF by the host MCU via the main serial circuit. Then the receiving module receives the data of the wireless transmitting module and reports it to the device to form the drawing or handwriting.

Wireless transmitter module and receiver module are used RF, standard private 2.4G, frequency band 2.4G-2.5G， but the transmitter module only have the transmitter function and the receiver module only have receive function; and it's no need to match the trasmitting and revieving frequency by hand. The crystal of the wireless module all adopts the external crystal of 16MHZ.

Wireless connection operation mode:

Register set modulation by GFSK, data transfer rate of 1Mbps, 250KHz deviation, the number of channels in the factory according to the serial number of the number of channels to choose, can not be frequency hopping.In addition to the board only to launch, Dongle only to receive, Dongle channel and synchronous word information in the factory configuration and the board, they are one to one.

The features of the control chip MCU are as follows:

With full-speed USB2.0 function,Built-in Cortex ™ -M0 core,running up to 50 MHz, built-in 32K / 64K / 128K bytes of Flash memory, and 4K / 8K / 16K bytes of built-in SRAM, 4K bytes for the storage ISP boot code ROM, and 4 Kbytes of data flash memory. There is also a wealth of peripherals, such as timers, watchdog timer, RTC, PDMA, UART, SPI, I2C, I2S, PWM timer, GPIO, PS / 2, USB 2.0 FS device 12 ADC, Analog Comparator, low-voltage reset control and under-voltage detection.

The EUT is a Creative Pen Tablet

Operating frequency: 2406~2476MHz

Modulation: GFSK

Antenna Designation: PCB Antenna

Antenna Gain (dBi):0dBi

Hardware version number: REV03

Software version number: 180709