

深圳市海祺电子科技有限公司

YX HK-9562 HID I2C 带背胶 触摸板承认书

SPECIFICATION FOR APPROVAL

客户名称 Customer:	深圳市迈迪杰科技有限公司
客户型号 Description:	
本司型号 Module No.	YX HK-9562 HID I2C (PCBA:82.021.09562.00) 带背胶
送样日期 Sample Date	2019-5-30
软件 CRC:	

本司确认 (HaiLuck Approval) :

核准	工程	制作	签章
		吴晓飞	
客户确认 (Customer Approval)			
核准	工程	制作	签章

确认结果:	合格 (Pass) <input type="checkbox"/>	不合格 (Fail) <input type="checkbox"/>	

Add:西乡镇宝田三路旺业工业 区 4 栋 5 楼

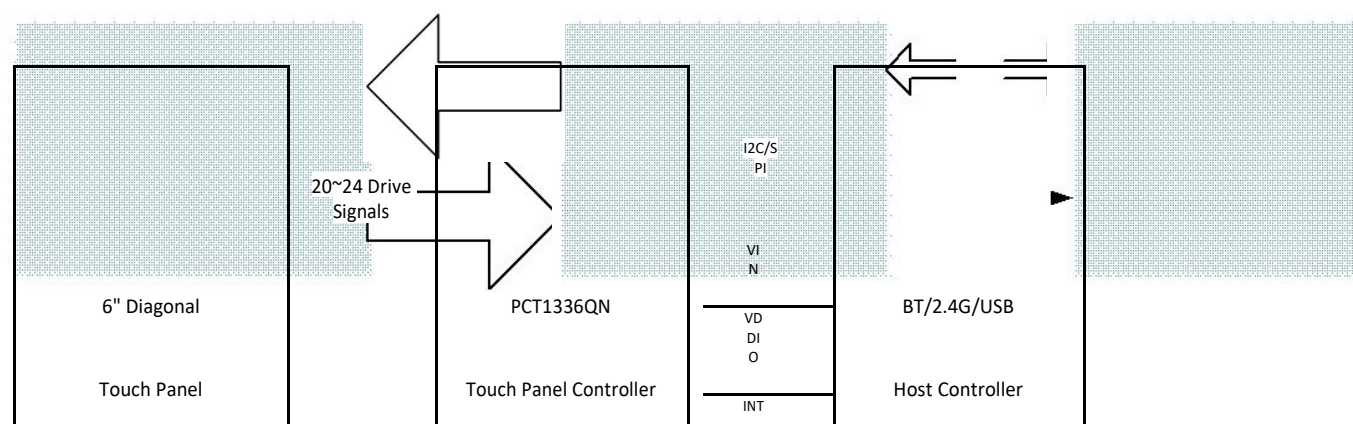
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1. YX IC 介绍

1.1 Overview

PCT1336QN is based on true mutual capacitance sensing technology. It is designed to meet the increasingly demanding needs for multi-touch performance in PC peripheral application. Figure1 illustrates a typical system with the embedded PCT1336QN touch controller. It develops and delivers the excitation signals to the touch panel. All the touch detection, gesture interpretation and motion tracking are handled by PCT1336QN. An interrupt flag from the touch controller signals the host to read the touch reports.

PCT1336QN is a flash base touch controller. I2C/HID-I2C/SPI are used for serial communication between the PCT1336QN and the host. Meanwhile, a large set of registers are provided for performance optimizing.



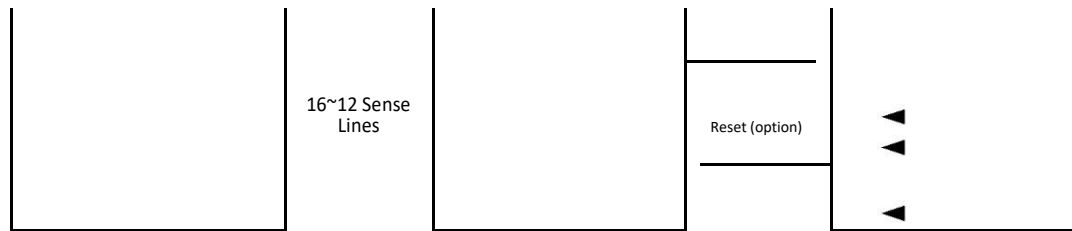


Figure 1. System Block Diagram

1.2 Operation Theory

PCT1336QN touch controller consists of an analog front-end with dedicate 20 drive lines and 12 sense lines together with 4 flexible lines connecting to touch panel. The 4 flexible lines are multi-function which can be used as drive or sense that means the matrix resolution can be 24x12 ~ 20x16 according to user's preferred ME geometry. All drive and sense lines can be reordered to provide panel routing flexibility, and each drive/sense line can be independently switched on/off to match the touch screen active areas.

The controller applies a series of excitation signals to the drive electrodes. The signals are coupled to the sense lines via mutual capacitance. Touching anywhere on the panel with a finger alters the capacitance at that specific location. The PCT1336QN multi-touch controller can simultaneously resolve and track up to five touches. The high report rate allows the host to track rapid touches and movements with less than 10ms latency. The embedded processor filters the data, identifies the touch coordinates and gesture and then report to the host 250Hz maximum. However, PCT1336QN FW does noise avoidance automatically to get good SNR, so the report rate may be reduced automatically when the environment is noisy.

1.3 Package and Pin Definition

PCT1336QN is packaged in QFN48 6mmx6mm with pad pitch 0.5mm.

24 23 22 21 20 19 18 17 16 15 14 13

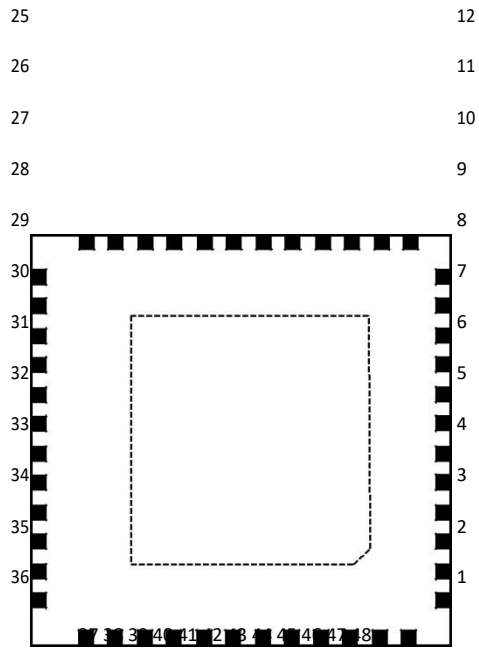


Figure 2. QFN48 Package Pin Assignment

Table 1. PCT1336QN QFN48 Pin Definition

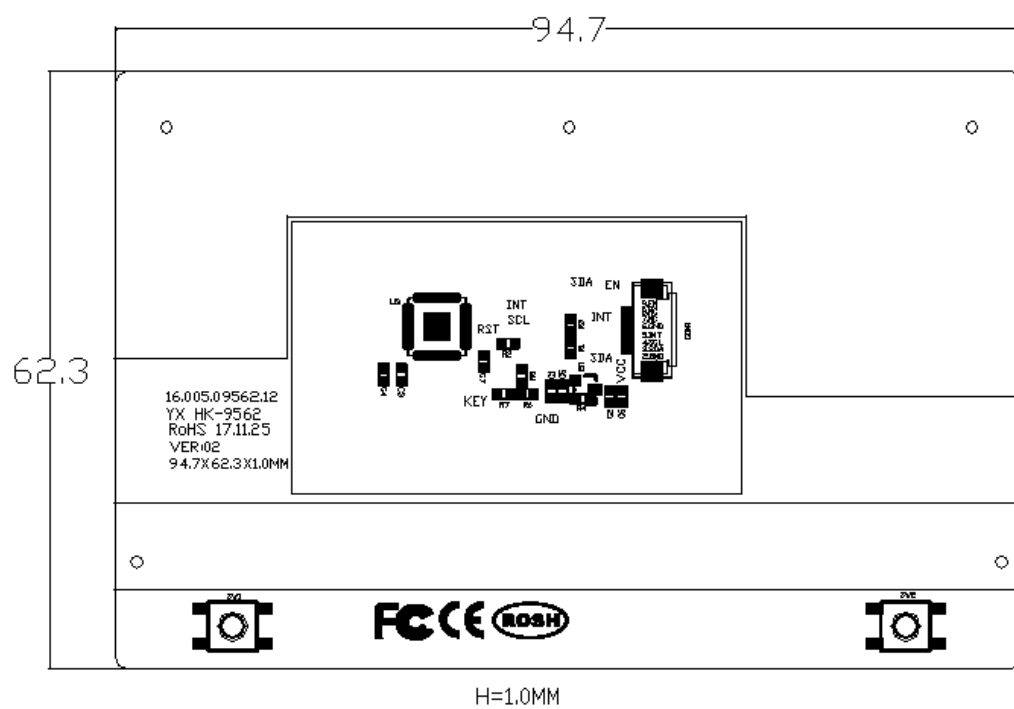
Pin		
1	SEN3	Sense line pin, could be connected to any Touch sensor row.
2	SEN4	Sense line pin, could be connected to any Touch sensor row.
3	SEN5	Sense line pin, could be connected to any Touch sensor row.
4	SEN6	Sense line pin, could be connected to any Touch sensor row.
5	SEN7	Sense line pin, could be connected to any Touch sensor row.
6	SEN8	Sense line pin, could be connected to any Touch sensor row.

7	SEN9	Sense line pin, could be connected to any Touch sensor row.
8	SEN10	Sense line pin, could be connected to any Touch sensor row.
9	SEN11	Sense line pin, could be connected to any Touch sensor row.
10	SEN12	Sense line pin, could be connected to any Touch sensor row.
11	SEN13	Sense line pin, could be connected to any Touch sensor row.
12	VDDA	Analog power, 1uF capacitor to ground.
13	VDDD	Digital power, 1uF capacitor to ground.
14	DRV12_SEN14	Mux pin: Can be set to Drive or Sense function.

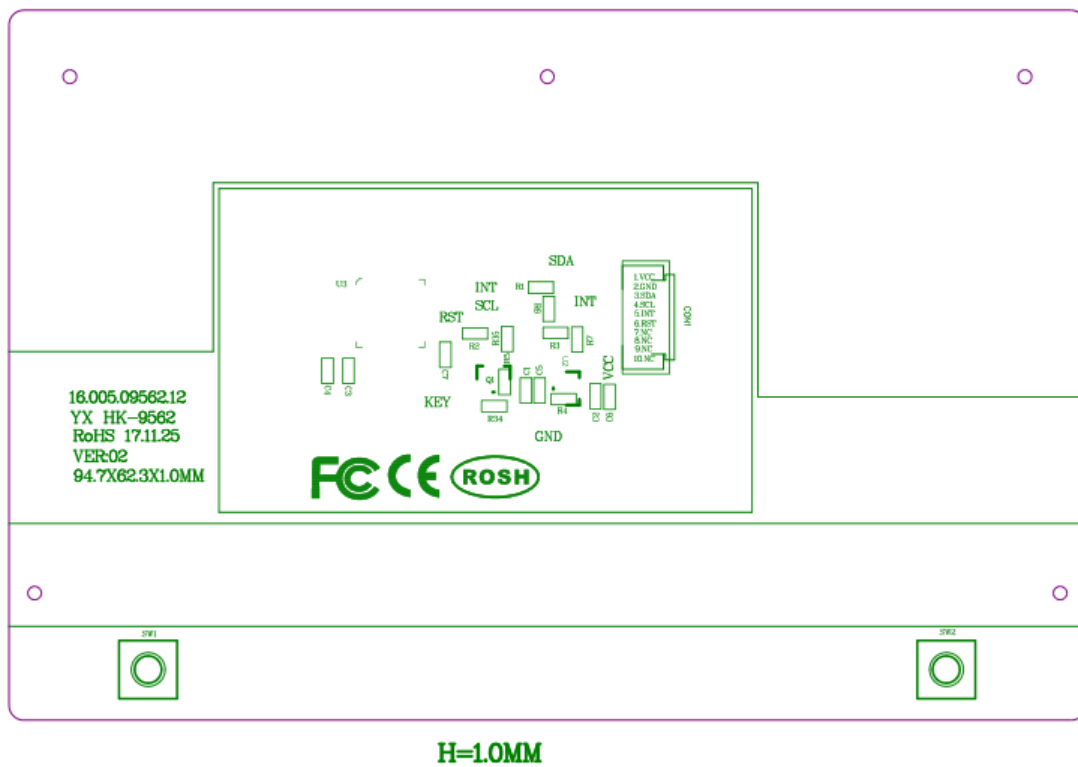
2. PCBA SIZE:

PCB 厚度: 1.0mm±0.1mm

PCB 外形尺寸: ±0.15mm



3. PCB 位置图



4. PCB 工艺与按键要求

1. PCB: YX HK-9562 VER:02 FR4 无铅喷锡 1.0MM 白油黑字 (171125)
2. 双按键: 4*4*0.8mm 防水 160 克力 寿命 50 万次以上
3. 连接器: PH=0.5mm 10PIN 掀盖式 H=1.5mm

4. 带背胶

5. 触摸功能

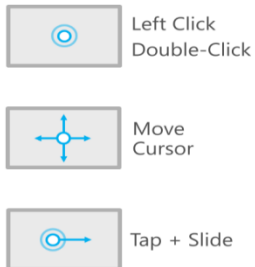
5.1 手势

微软默认手势如下，也可以从设置中根据客户体验更改功能。

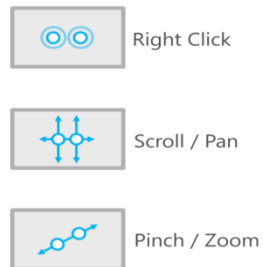
Overview

We've significantly reduced the cost of Precision Touchpads and replaced edge gestures with new, easier-to-use multi-finger gestures.

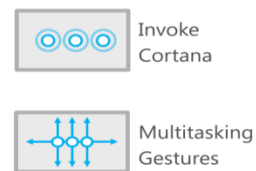
1-Finger



2-Finger

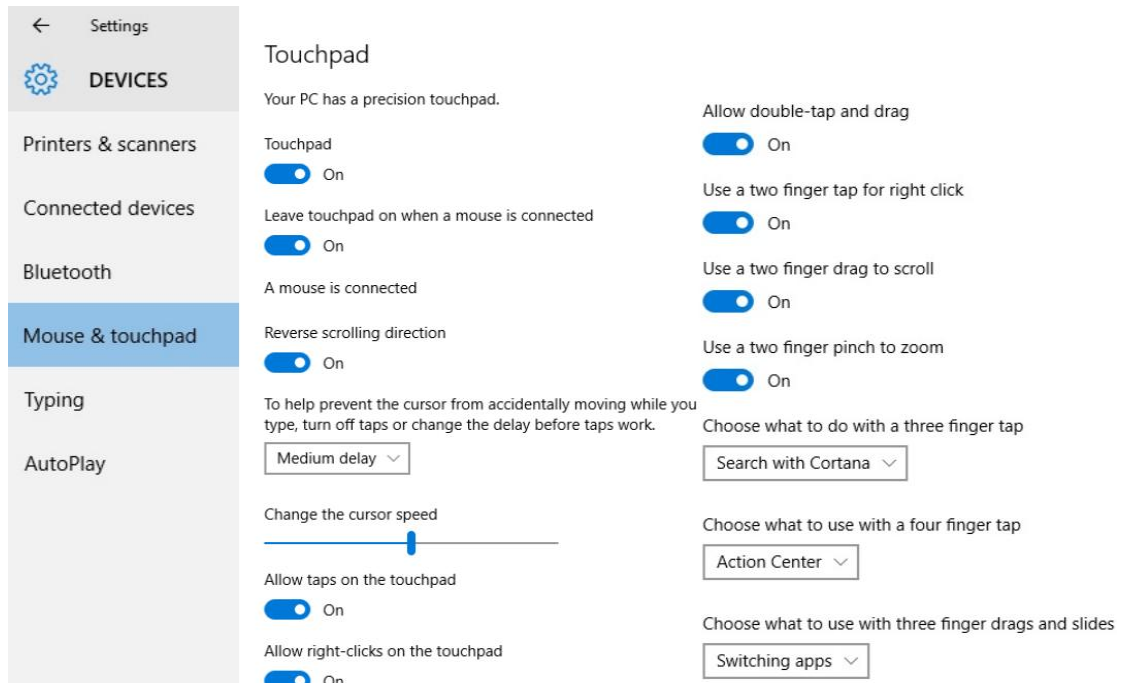


3-Finger



4-Finger





5.2 按键

手指在触摸板左边使用按下按键是鼠标左键功能，在触摸板右下角按下按键是鼠标右键功能。

6.静电要求：接触±4K ,空气±8K；

7.曲翘度：PCBA 对角线的 5%；

8.防水静电：

