

技术理论

基于电容传感器 FDC2214 的多手势识别装置设计

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摘要：采用手掌形分布的电容感应区域进行检测；FDC2214 芯片采集测试区电容值，发送给 STM32F407 进行数据处理，运用均值算法确定其阈值，通过对比达到识别手势的目的。用按键进行训练和判决两种工作模式的切换，系统对检测数据进行记录、分析及学习，实现对手势判决，并将结果输出至 LCD 屏。

关键字： FDC2214；STM32F407；手势识别

Design of Gesture Recognition Device Based on the Sensor Chip FDC2214

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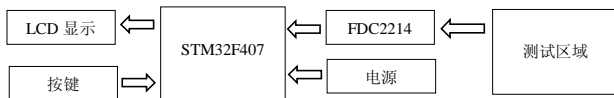
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Abstract: The capacitive sensing area distributed in the palm is used for detection; FDC2214 chip collects the capacitance value of the test area, sends it to STM32F407 for data processing, uses the averaging algorithm to determine its threshold, and achieves the purpose of recognizing gestures through comparison. The system records, analyzes and learns the detection data with the button to switch between the two working modes, realizes the gesture judgment, and outputs the results to the LCD screen.

Key words: FDC2214; STM32F407; gesture recognition

0 引言

1 总体设计



2 系统硬件设计