

#6 键触摸检测 IC

功能概述

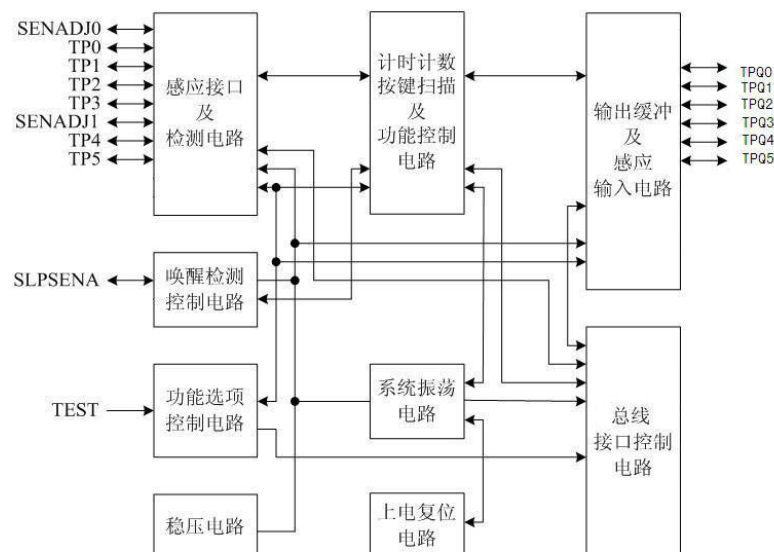
简要数据手册

FH8225 触摸检测 IC 是一款使用电容感应式原理设计的触摸芯片。此芯片内建稳压电路供触摸传感器使用，稳定的触摸效果可以应用在各种不同应用上，人体触摸面板可以通过非导电性绝缘材料连接，主要应用是以取代机械开关或按钮，此芯片可以独立支持 6 个触摸键。

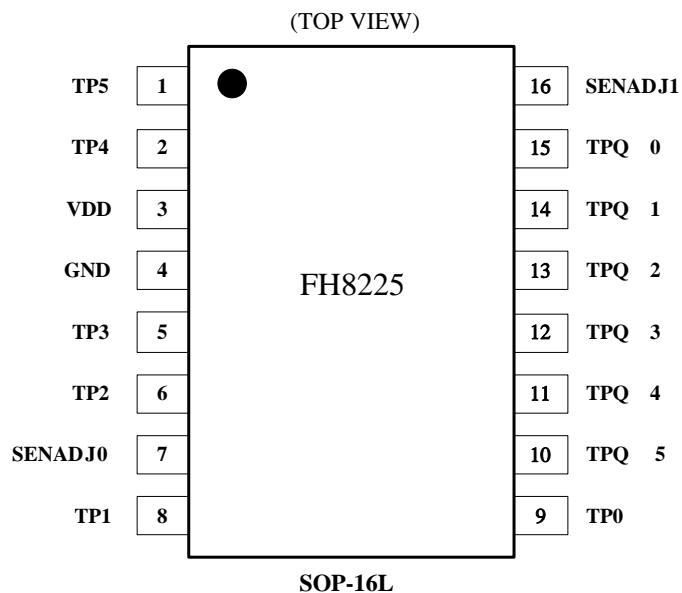
器件特点

- ◆ 工作电压：2.5V~5.5V(启用内部稳压电路)
- ◆ 内建稳压电路功能
- ◆ 待机电流 ,3V 电压，低速采样率 8Hz 的睡眠模式下典型值 4.5uA
- ◆ 提供 6 个直接输出独立端口
- ◆ 6 个直接输出端口可以选择不同输出类型(CMOS/OD/OC 具有高/低电平有效)
- ◆ 具有选项选择有效键最大输出时间大约为 80Sec
- ◆ 灵敏度可由外部电容(1~50pF)调节
- ◆ 上电后需要 0.5Sec 稳定时间
在此期间内请勿触摸按键面板，所有的功能触摸无效
- ◆ 自动校准
当所有按键在一段时间内没有被触摸到时，芯片系统重新校准时间约为 4.0Sec

功能模块图



引脚描述



注：引脚类型

I => CMOS 输入

I-PH => 带上拉电阻的 CMOS 输入

I-PL => 带下拉电阻的 CMOS 输入

O => CMOS 输出

I/O => CMOS 输入/输出

P => 电源/地

OD => CMOS 漏极开路(Open Drain)输出；

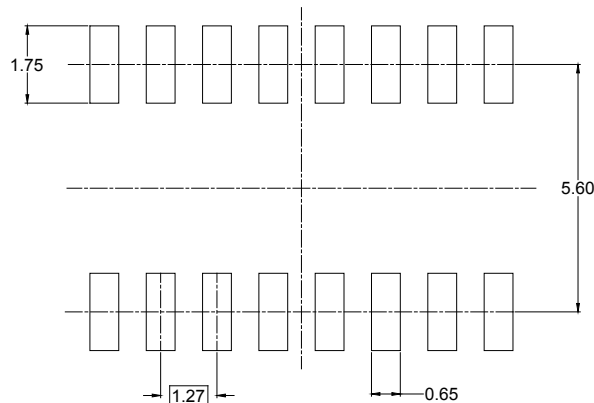
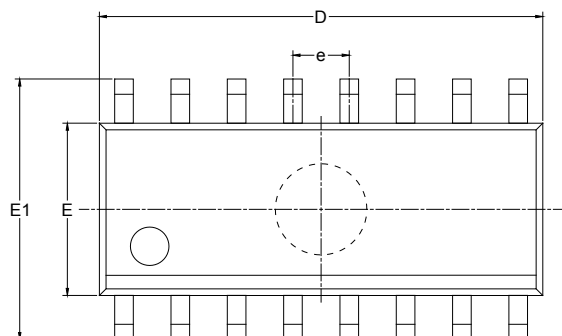
(在 OD 输出下，TPQ0~TPQ7 引脚的开漏输出有二极管保护电路，而 SDA 引脚没有)

脚位功能

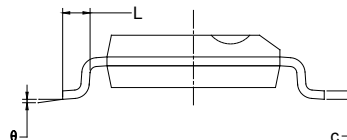
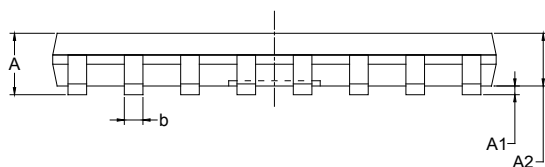
序号	名称	共用	类型	功能描述
1	TP5	WPSCT	I/O	TOUCH 输入引脚(KEY-5)； 睡眠模式采样率功能选项(8Hz/64Hz)，默认为 8Hz
2	TP4	SKMS0	I/O	TOUCH 输入引脚(KEY-4)； 按键有效功能选项-0 (单键/多建模式)，默认为单键模式
3	VDD		P	电源正极
4	GND		P	电源负极，地
5	TP3	SKMS1A	I/O	TOUCH 输入引脚(KEY-3)； 按键有效功能选项-1 (单键/多建模式)，默认为全部单键模式
6	TP2	KYSEL	I/O	TOUCH 输入引脚(KEY-2)
7	SENADJ0		I/O	TP0~3 灵敏度调节的共用引脚
8	TP1	SAHL	I/O	TOUCH 输入引脚(KEY-1)；输出电平类型功能选项(高/低电平有效)，默认 TPQ0~7为高电平有效
9	TP0	OPDEN	I/O	TOUCH 输入引脚(KEY-0)；输出类型功能选项(CMOS/OD/OC 在 8 BXYZ)，默认为 CMOS
10	TPQ5		I/O/OD	TP5 输出
11	TPQ4		I/O/OD	TP4 输出
12	TPQ3		I/O/OD	TP3 输出
13	TPQ2		I/O/OD	TP2 输出
14	TPQ1		I/O/OD	TP1 输出
15	TPQ0		I/O/OD	TP0 输出
16	SENADJ1		I/O	TP4~5 灵敏度调节的共用引脚

封装结构

类型 : SOP-16L



RECOMMENDED LAND PATTERN(Unit: mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	9.800	10.200	0.386	0.402
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.27 BSC		0.050 BSC	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

订购信息

Part Number	Description	Operating Temperature Range	Package Type	Top Mark	SPQ
FH8225S16	#6 Key Touch Vin: ~ 5.5V Sensitivity: External capacitor adjustment	0 ~ 70°C	SOP-16L	8225 YM ***	3000PCS/Reel

Note:

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