

TOUCH KEY MODULE

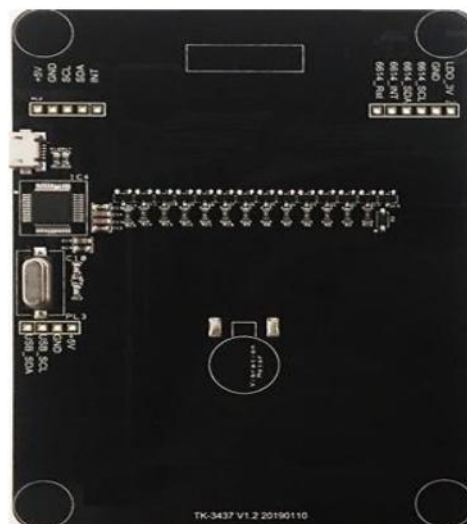
P/N: DUO-1226-S000



Introduction

This is a touch panel, including 12 key touch switches. The stable touch detection effect can widely meet the needs of different applications. This touch is specially designed to replace traditional buttons. The touch partition thickness can be designed according to different needs. This module has low power consumption and wide working voltage.

Product Appearance (Sales can be customized)



Product features

- Capacitive touch system.
- Adjustable sensitivity. Multi-level active messenger suppression filter.
- Automatic environmental compensation.
- Supports various thickness shapes and sizes. It can simply connect to the I/O interface of the existing system. High signal to Noise Ratio (SNR)

Production

Product Features Automatic calibration function.



Built-in LDO provides touch circuit use.

Built-in low voltage reset (LVR) function.

Working voltage range: 5V.

Operating temperature: -40°C to +85°C.

There is about 0.5 seconds of stable time after powering up.
Do not touch this module during this period. Typical applications

Lighting switch Handheld device Industrial control
Computer peripheral Home appliances Consumer
products Medical equipment Motor equipment

Position instructions

Client usage





Positioning definition

腳位元順序	腳位名稱	I/O 類型	腳位定義
1	+5V	電源	正電源供應
2	GND	電源	負電源供應(接地)
3	SCL	I/O	I2C CLK
4	SDA	I/O	I2C DATA
5	INT	I/O	當觸控行為發生時(輸出Low)

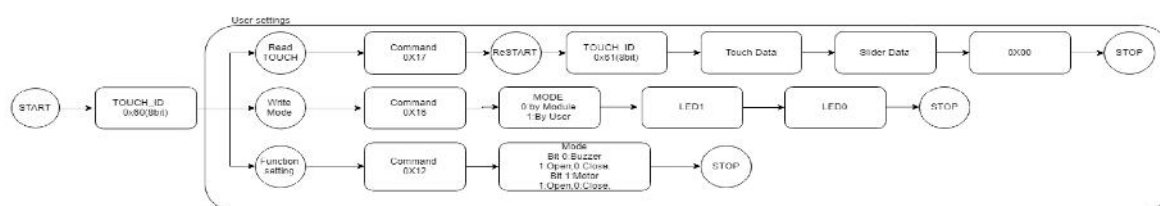
Electrical characteristics

參 數	符號	條 件	值	單位
工作溫度	Top	—	-40~+85	°C
儲存溫度	TSTG	—	-40~+125	°C
電源供應電壓	VDD	Ta=25°C	VSS-0.3~VSS+5.5	V
輸入電壓	VIN	Ta=25°C	VSS-0.3~VDD+0.3	V
晶片抗靜電強度 HBM	ESD	—	4	KV

DC/AC characteristics (test condition is room temperature = 25 °C)

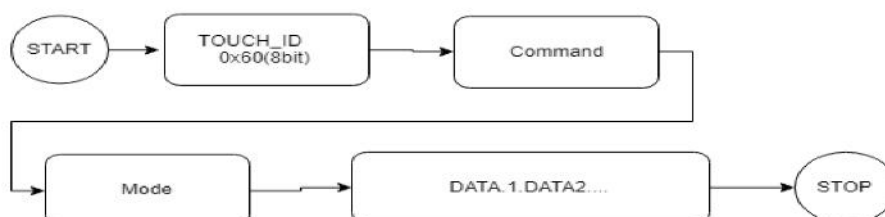
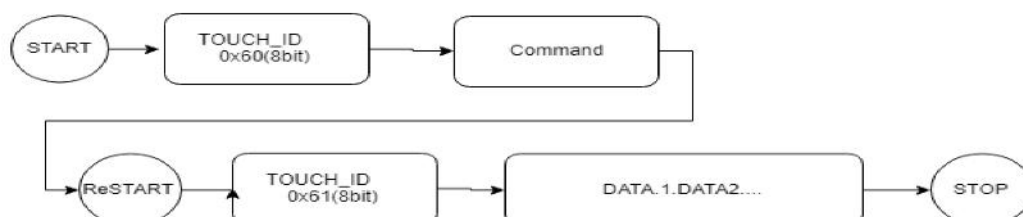
參 數	符號	測試條件	最小值	典型值	最大值	單位
工作電壓	VDD	使用5V LDO ,Vcc = 3.3V	4.5	5	5.5	V
		使用高壓 LDO ,Vcc = 5V	8	12	24	V
工作電流	I	Active mode		3.4	5	mA
輸出埠	VOL	輸入低電壓		0.45		V
輸出埠	VOH	輸入高電壓		Vcc-0.45		V
輸出埠灌電流 Sink Current	IOL			8		mA
輸出埠源電流 Source Current	IOH			4		mA
輸入埠	VIL	輸入低電壓		0.3Vcc		V
輸入埠	VIH	輸入高電壓		0.7Vcc		V

Panel data corresponds to



Transmission instructions:

I2C Structure



Touch_ID: The lowest bit is read, read Touch ID 0x61. Write Touch ID 0x60

Command: This corresponds to the Command table below.

Mode: Mainly based on the panel data-based architecture. It is a special setting. .

DATA: Mainly based on panel data-based architecture.



Command

I2C Command Correspondence Table

Read /Write	Command 數值	
Read	0x17	Read Touch DATA
Write	0x16	Control LED
Write	0x15	Write UC66xx DATA
Write	0x14	Write UC66xx to ROM
Read	0x13	Read UC66xx DATA
Write	0x12	Function setting

Command 0x17 Read Touch DATA

Touch data	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	Touch data							

When touching the button, it is presented in numerical way

Slider data	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	Slider data							

When touching the slider, it is presented in a numerical way

Command 0x16 Control LED

Mode		D8	D7	D6	D5	D4	D3	D2	D1
對應位置		保留	保留	保留	保留	保留	保留	保留	Mode

Mode: 0: Panel control,

1: User control

DATA0	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	LED Data0							

DATA1	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	LED Data1							

Command 0x15 Write UC66xx DATA

Address	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Address							



DATA0	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Data0							

DATA1	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Data1							

Command 0x13 Read UC66xx DATA

Address	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Address							

DATA0	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Data0							

DATA1	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	UC66xx Data1							

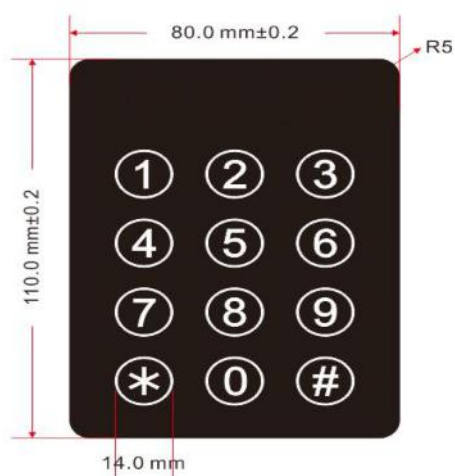
Command 0x12 Function setting

Mode	D8	D7	D6	D5	D4	D3	D2	D1
對應位置	保留	保留	保留	保留	保留	保留	Motor	Buzzer

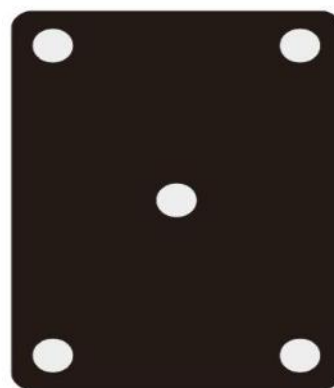
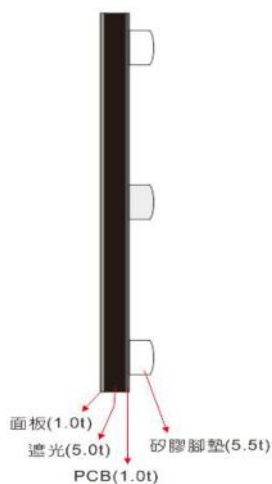
MODE Bit 0: 1= Turn on Buzzer, 0= Turn on Buzzer. MODE Bit 1: 1= Turn on Motor, 0= Turn on Motor.

Dimension

Front View



Back View





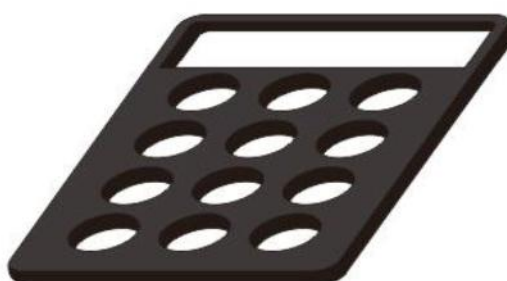
Structure



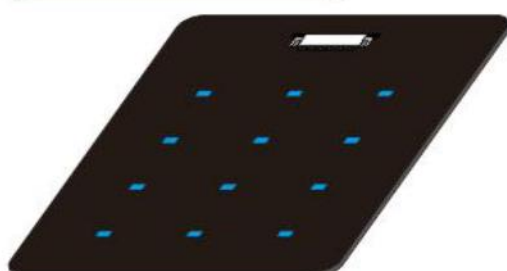
可客製化PMMA銘版(1.0t)



Touch film(0.075t)



黑色PMMA間隔板(5.0t)



PCB(1.0t)