Product Specification

PCBA 规格书

Product model 产品型号	EGGKPCBA-61-UI_(3ZTPCUP0N00/EM.5DD10.029) (Z0543)
Solution 方案	EXC81H84
Versions 版本	V1.5
Date 制作日期	2025.6.6

Edit 制作	Checked 审核	Approved 核准
LM	DQH	LEE

Customer Name 客户名称	
Customer Approval 客户确认	
Signature and Seal 客户盖章	設計驗證 工程課 2025 -06- 17 發行

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Document History

变更记录

Version 版本	Description 变更说明	Editor 修订人	Revised Date 变更日期
V1.0	新建	LM	2023.8.1
V1.1	修改产品图片	LEE	2023.10.9
V1.2	修改连接器编号	LEE	2024.7.23
V1.3	修改 pin definition	LEE	2025.2.4
V1.4	增加标签内容及分位的名称	LEE	2025.5.6
V1.5	增加 YD Internal No. 20240022 內容	LEE	2025.6.6

1. PCBA Description 描述

The EGGKPCBA-61-UI_EXC81H84 is a projected capacitive (PCAP) touch screen controller that powered by EETI's high performance MCU EXC81H84. By integrating the advantages of self and mutual capacitance sensing technology, built-in high driving voltage transceiver and a powerful MCU, this controller incorporate most desired features to boost the noise immunity, and support high demand applications in most categories.

2.OS Support Matrix 支持的系统

OS	Version	Interfaces
Windows	Windows 11, 10, 8, 7, XP Windows Embedded, WEC2013, WEC7, WinCE6	USB / I2C
Linux	Support Kernel 2.4.x / 2.6.x / 3.x.x / 4.x.x / 5.x.x, and most Linux distribution versions, including Ubuntu, Debian, Fedora, Red Hat, CentOS, SuSE (OpenSuSE),Arch, Slackware, etc.	USB / I2C
Android	2.3.x upwards (from Gingerbread to the latest Android version)	USB / I2C
Mac	macOS9 to the latest 12.x.x	USB

* macOS9 support only Resistive Touch Controllers

Features 特点

■USB, and I2C interface

■Noise immunity

■Support advanced water resistance

■Support active stylus

■Support OGS, SITO, DITO, G/F, G/F/F, G/G, and mesh sensors.

■Comprehensive driver support

■eGalaxTouchManager plus tool support

■API support

■RoHS compliant

3. Characteristics 参数特征

Item	Specification
Circuit Board Dimension	50mm x 100mm x 4.5mm
Channels of Panel	Max.Tx:48 Rx:80 channels (include shielding pin)
Input Voltage	5V
Operating Temperature	-40 to 85 ℃
Storage Temperature	-40 to 90 ℃
Relative Humidity	95% at 60 ℃, RH Non-condensing
Accuracy and Linearity[1]	<= +/- 1mm (outside 3.5mm from edges) <= +/- 2mm (within 3.5mm of all edges) (Refer to Win10 Touch Requirement)
Interface	USB 1.1 Full Speed (USB 2.0 compliant full speed) I2C: up to 400KHz, Voltage level 3.3V
Resolution	16384 x 16384 resolution
Power consumption (mA)	Active Mode: Typically <90mA
Report rate[2] (points/sec)	> 100 Hz
Response time	Average < 25ms

1 Requires a corresponding touch sensor design. (Sensor pitch <=5.5mm)

2 Report rate is varied by touch sensor channel number, cover thickness, system condition, and other parameters

Disclaimer 补充说明

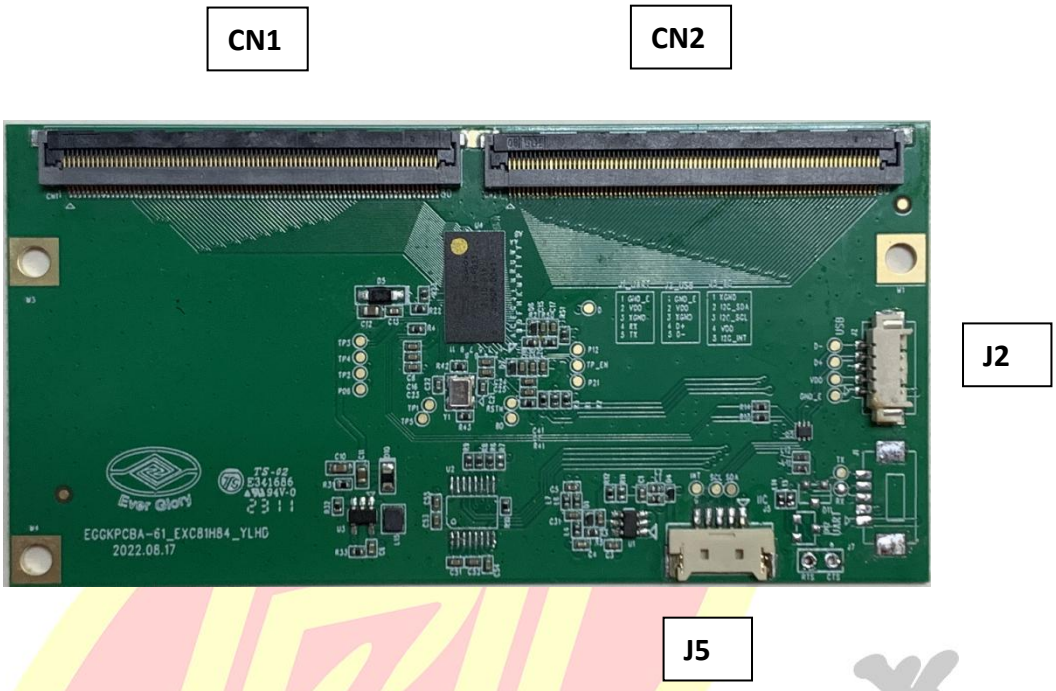
■For products that require Windows logo certification (WHQL), please contact your supplier for a specifically designed touch module.

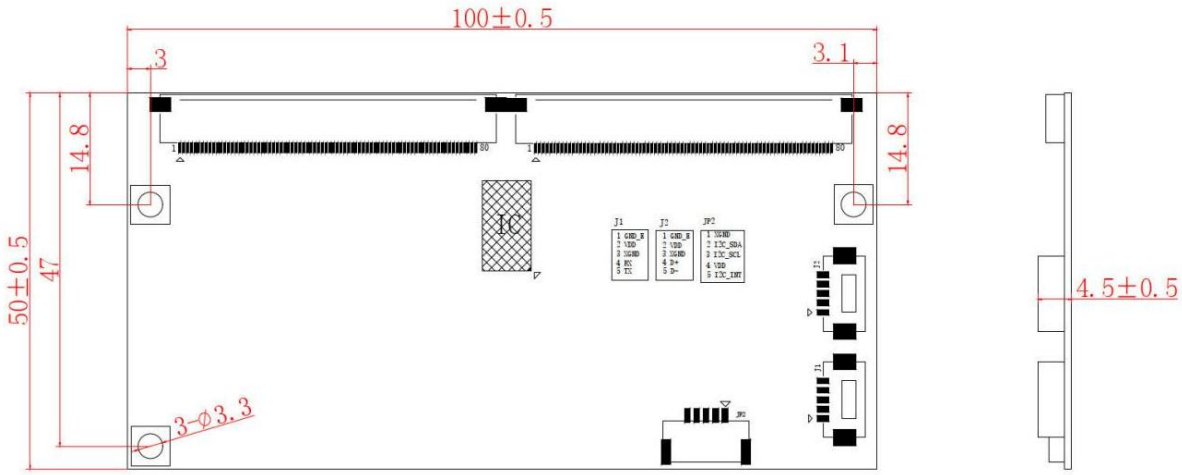
■Special input performance can vary depending on module conditions, contact materials, sizes and subjects, including thick glass touch, gloved-hand input, water resistance, noise immunity, etc.

■Special features need to be pre-defined and pre-tuned during project development.

4. PCBA Drawing And Pin Definition 尺寸和定义

4.1 Dimension Drawing





4.2 FPC Connector pin definition

CN1, 80-Pin, Pin Pitch=0.5mm							
PN		PN		PN		PN	
1	NC	21	TX42	41	TX22	61	TX2
2	NC	22	TX41	42	TX21	62	TX1
3	NC	23	TX40	43	TX20	63	NC
4	NC	24	TX39	44	TX19	64	NC
5	NC	25	TX38	45	TX18	65	NC
6	GND	26	TX37	46	TX17	66	NC
7	NC	27	TX36	47	TX16	67	NC
8	NC	28	TX35	48	TX15	68	NC
9	NC	29	TX34	49	TX14	69	NC
10	NC	30	TX33	50	TX13	70	NC
11	NC	31	TX32	51	TX12	71	NC
12	NC	32	TX31	52	TX11	72	NC
13	NC	33	TX30	53	TX10	73	NC
14	NC	34	TX29	54	TX9	74	NC
15	TX48	35	TX28	55	TX8	75	NC
16	TX47	36	TX27	56	TX7	76	NC
17	TX46	37	TX26	57	TX6	77	NC
18	TX45	38	TX25	58	TX5	78	NC
19	TX44	39	TX24	59	TX4	79	NC
20	TX43	40	TX23	60	TX3	80	NC

CN2, 80-Pin, Pin Pitch=0.5mm							
PN		PN		PN		PN	
1	RX80	21	RX60	41	RX40	61	RX20
2	RX79	22	RX59	42	RX39	62	RX19
3	RX78	23	RX58	43	RX38	63	RX18
4	RX77	24	RX57	44	RX37	64	RX17
5	RX76	25	RX56	45	RX36	65	RX16
6	RX75	26	RX55	46	RX35	66	RX15
7	RX74	27	RX54	47	RX34	67	RX14
8	RX73	28	RX53	48	RX33	68	RX13
9	RX72	29	RX52	49	RX32	69	RX12
10	RX71	30	RX51	50	RX31	70	RX11
11	RX70	31	RX50	51	RX30	71	RX10
12	RX69	32	RX49	52	RX29	72	RX9
13	RX68	33	RX48	53	RX28	73	RX8
14	RX67	34	RX47	54	RX27	74	RX7
15	RX66	35	RX46	55	RX26	75	RX6
16	RX65	36	RX45	56	RX25	76	RX5
17	RX64	37	RX44	57	RX24	77	RX4
18	RX63	38	RX43	58	RX23	78	RX3
19	RX62	39	RX42	59	RX22	79	RX2
20	RX61	40	RX41	60	RX21	80	RX1

4.3 USB Connector pin definition

J2, 5-Pin, Pin Pitch=1.25mm					
Pin	1	2	3	4	5
Name	GND_E	VDD	GND	D+	D-

4.4 IIC Connector pin definition

J5, 5-Pin, Pin Pitch=1.25mm					
Pin	1	2	3	4	5
Name	GND	SDA	SCL	VDD	INT

5. 控制卡标签(下图仅供参考)

前面 8 位数字”20240022”代表的是友联亨达内部项目编号，每一个项目对应唯一的编号。

PCB 代表的是控制卡

后 4 位 0029 代表的是系列号码



YD Internal No. 友聯亨達內部項目編號	TP Model No. 搭配 TP 型號	FW Ver. 分位版本
EG20240853	EG-23.8-A-1609V3	eGalaxWorks81X84~20250407-YL HD-1960-v00_T4
EG20240022	EG-21.5-A-1609V2	eGalaxWorks81X84~20250526-YL HD-21.5-2MM-2714-vT1_m02
EG20250309	EG-21.5-485-1609V2	
EG20250345	EG-23.8-179-1609V2	

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