Revision History

Item	Date	Revision NO.	Page	Description	Reason
1.	09/04/2020	H8573C		1st Issue	

Sample NO : H8573C	PRODUCT STANDARD SHEET	Publication date: 09/04/2020
Publication edition:		Revision date :
SET	CONTENTS	PAGE ..: 1/9

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Attached

1. EETI CONTTOLLER SPEC

1.Contants

This standard is for projected capacitive type touch panel that can be one module of LCD

2.General Standard Specification

Item	Specification	
Structure (not including liner)	Cover Glass	1.8 mm
	TOP OCA	0.1 mm
	TOP ITO Film	0.125mm
	MID OCA	0.05 mm
	BOT ITO Film	0.125mm
	Total thickness	2.2 mm +/- 0.2
Operating Temperature Range	-20℃~+70℃,20%RH ~85%RH (Exc pt for dew gathering.)	
Storage Temperatur Range	-30℃~+80℃,20%RH ~90%RH (Except for dew gathering.)	
Light Transparency	87%min	
Package Drop	No damage the product.(1corner e ge, 2 ridges, 4 surfaces, drop from 50 cm height)	

3. Optical Characteristic.

(3-1) test by light measure device and the result should be 87% min.

4. Electrical characteristics

TBD

5.Reliability Test(Non operating.)

(5-1) High Temperature Test.

The requirements in 3 and 4 shall be satisfied after exposing at 80℃ for 240 hours and at normal temperature and humidity for 24 hours.

(5-2) Low Temperature Test.

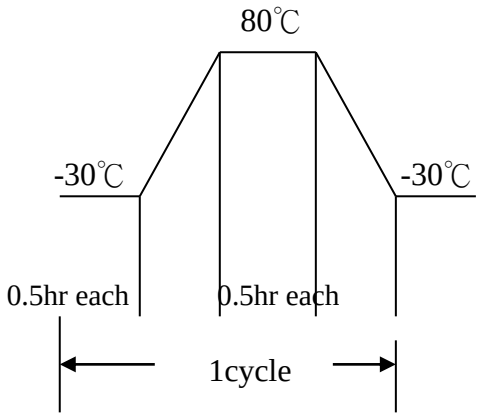
The requirements in 3 and 4,shall be satisfied after exposing at -30℃ for 240 hours and at normal temperature and humidity for 24 hours.

(5-3)High Temperature、High Humidity Test.

The requirements in 3 and 4,shall be satisfied after exposing at 60℃,90%RH for 240 hours(after dehumidifying in the chamber 40℃ and 50% max.) and at normal temperature and humidity for 24 hours.

(5-4)Thermal Shock Test.

The requirements in 3 and 4,shall be satisfied after exposing under the conditions between -30℃(0.5hr each) and 80℃(0.5hr each)by 50 cycles (taking out at 80℃) and at normal temperature and humidity for 24 hours.



6. Appearance Inspection Standard

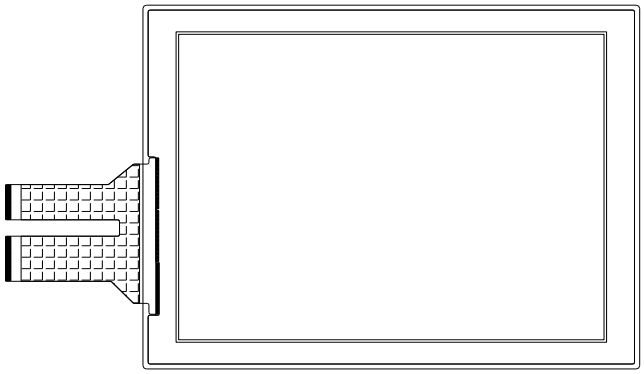
Unveil product appearance inspection standard and to assurance product quality Level.

(6-1).Scope：

TOUCH PANEL View area.

(6-2). Inspection Area(Inspection on front side only):

Appearance inspection of View area(VA) and black printing area are define at 6-5.



(6-3). Limit Sample:

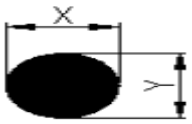
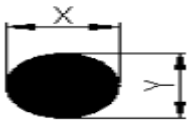
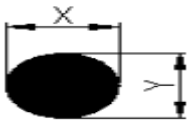
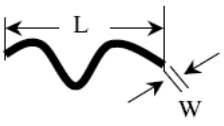
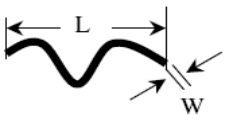
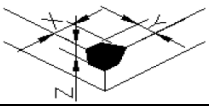
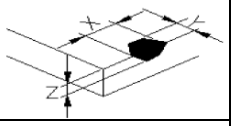
If the definition of appearance inspection is out off the description mentioned in this specification, we will base on the both parties agreed limit sample. Both parties will have the same standard limit sample and the appearance definition will be based on the limit sample priority

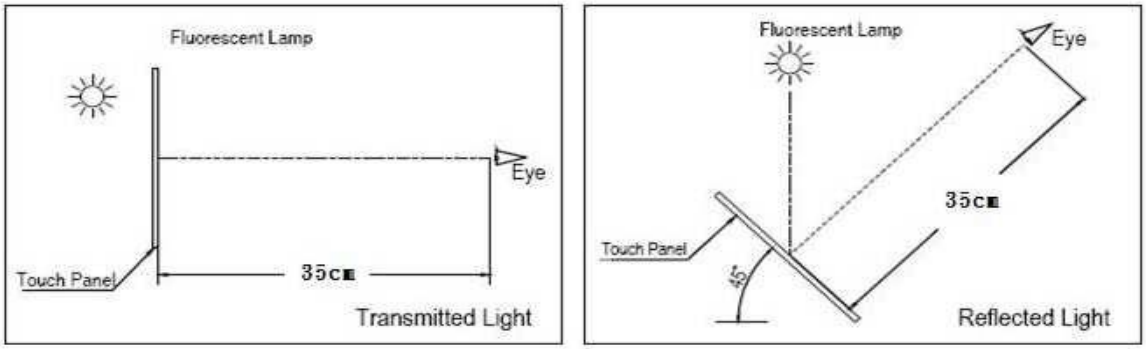
(6-4). Inspection Conditions:

(a) The brightness in test site: 1000±200LUX
(b) Inspection distance: 35cm~50cm
(c) Visible Angle : 90°±10°
(d) Light Source: Be inspected under general daylight lamp.
(e) It’s should be used by module upper component or adapter.
(f) Inspection background: using black and white background separately.

(6-5) Criteria

Based on above inspection condition, the defect can be found within 3 to 5 second is major defect.

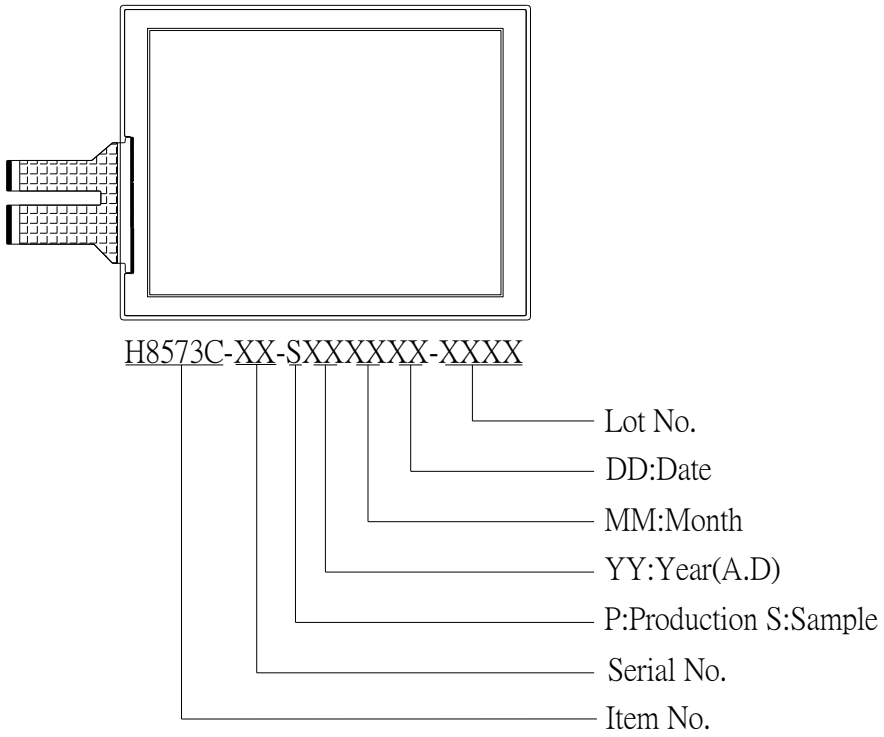
Defect item	Inspection Criteria	n (quantity)	Remark
Dot(黑白點)	D≦0.5mm	以下情況下不計	
	0.5mm<D≦0.7mm	N≦ 5 距離大於 5mm	
	D>0.7mm	NG	
Bubble(氣泡)	D≦0.6mm	以下情況下不計,距離大於 5mm	
	0.6mm<D≦0.9mm	N≦ 5 距離大於 5mm	
	D>0.9mm	NG	
Dent(凹凸點 /淺弧凹)	D≦5mm或依限樣	以下情況下不計	
	D>5mm	NG	
Line particle(毛屑)	W≦0.15mm	以下情況下不計	
	0.15mm<W≦0.25mm,L≦25mm,	N≦ 5 距離大於 5mm	
	W＞0.25mm	NG	
Scratch(刮傷)	W≦0.15mm	以下情況下不計	
	0.15mm<W≦0.25mm,L≦25mm,	N≦ 5 距離大於 5mm	
	W＞0.25mm	NG	
Breakage at Corner (CG 崩角）	Y≦0.3mm,Z≤T/2	以下情況下不計	
	X≤ 1/2T,Y≤ 1/2T,Z≤T/2	N≦ 6	
Breakage at Edge (CG 崩邊）	Y≦0.3mm,Z≤T/2	以下情況下不計	
	X≤ 1/2T,Y≤ 1/2T,Z≤T/2	N≦ 6	
STAIN(髒污)	可清除的髒污可忽略		
未定義之不良項目以雙方同意之限度樣品為準			



7. Package

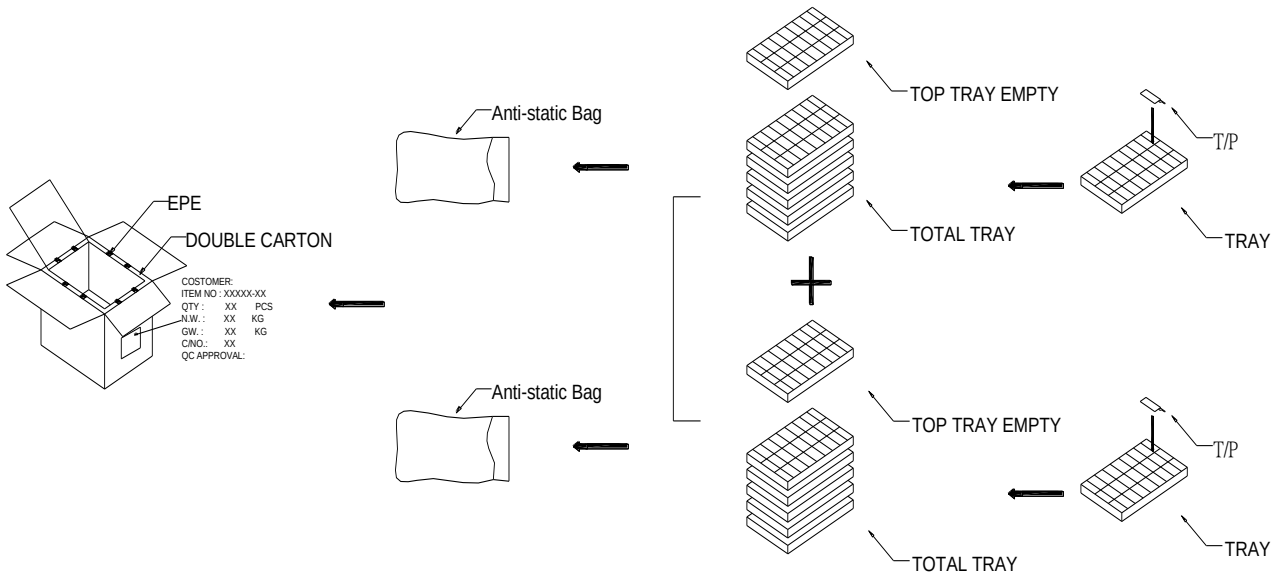
(7-1) The touch panel should be cover by protect film both sides before put into box.

(7-2) The Lot No. will be printed on the glass during the Silver Pattern Printing Process for future tracing. Please see attached drawing.



(7-3)Package

Using paper box to package, inside of box using PET tray.



(7-4)Transportation

Can not transport the product under the environment that may destroy the quality of product, such as, high humidity, extraordinarily high or low temperature.

8.Others.

(8-1) Any question about this standard should discuss each other and answer it.

(8-2) Any change of this standard should be approved by both parties. It can not be changed if not approved.

(8-3) If having difference between general standard and specific standard, we adopt specific standard.

(8-4) Providing one year warranty under the shelf life condition which meets the standard procedure and electrical properties. Ref.(8-5).

(8-5) This product should keep in the condition 10~69% RH, temperature between 10~35℃, away the sunlight directly. Please avoid prolonged exposure to sunlight.
Avoid the heavy material stack above to prevent the ITO film distortion.

(8-6) Please put the carton down gently and prevent dropping the carton.

(8-7) The validity of this specification

a) This document would be considered as a temporary specification.

b) This document is considered as an official specification, when this file was sent for one month without debate or signed.

9.**Return:**

(9-1) If received unsatisfied product, please contact with us within one month. If you would like to return the product, please keep the product in the original status. And send it back only touch panel itself.

(9-2) Product specification assures only the quality of touch panel itself.

(9-3) After carefully read product specification, please stamp with agree mark, and send it back tour sales department. Two months after production been issued, and dent out to you, if we still not get any response from you. We will assume that you understand and accept all contains of production specification.

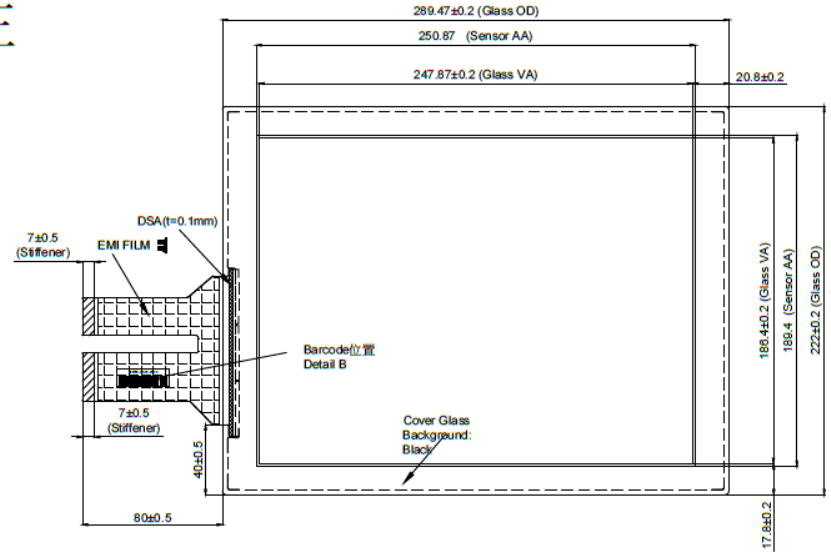
(9-4) YFO do not accept any RMA after FPC assembly process or front lens/cover/window lamination process by Customer.

(9-5) YFO does not accept any RMA which have been shipped over 1 month.

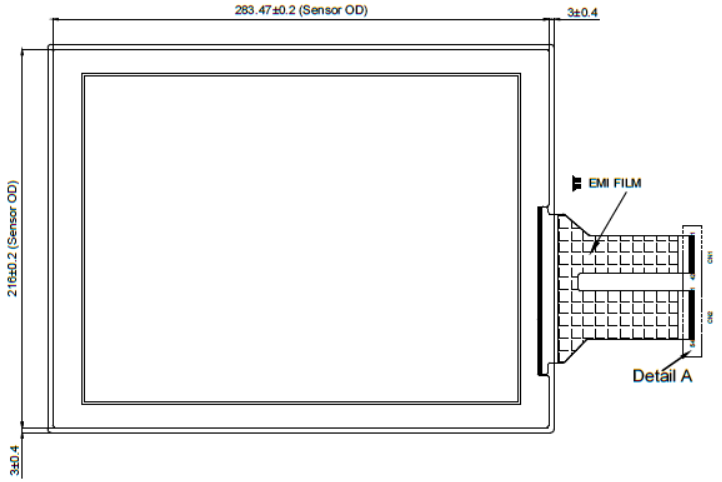
CUSTOMER NAME		CUSTOMER Ref. No.	12.1"
CUSTOMER'S APPROVAL		/ /	

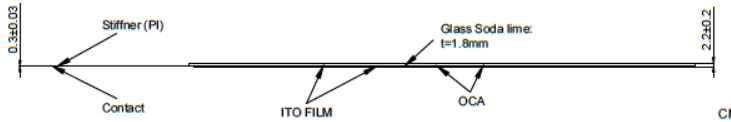
NO.	Revision Record	Reviser	Date
1.			
2.			
3.			

正

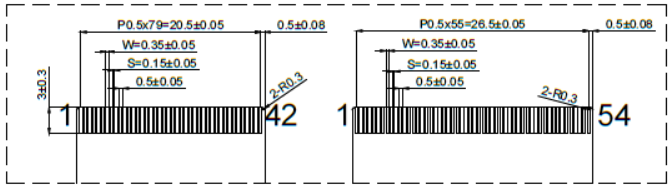


反





Detail A Scale 5:1



CN1

CN01	NC	CN22	Tx 18
CN02	NC	CN23	Tx 19
CN03	NC	CN24	Tx 20
CN04	Shielding	CN25	Tx 21
CN05	Tx 01	CN26	Tx 22
CN06	Tx 02	CN27	Tx 23
CN07	Tx 03	CN28	Tx 24
CN08	Tx 04	CN29	Tx 25
CN09	Tx 05	CN30	Tx 26
CN10	Tx 06	CN31	Tx 27
CN11	Tx 07	CN32	Tx 28
CN12	Tx 08	CN33	Tx 29
CN13	Tx 09	CN34	Tx 30
CN14	Tx 10	CN35	Tx 31
CN15	Tx 11	CN36	Tx 32
CN16	Tx 12	CN37	Tx 33
CN17	Tx 13	CN38	Tx 34
CN18	Tx 14	CN39	Shielding
CN19	Tx 15	CN40	NC
CN20	Tx 16	CN41	NC
CN21	Tx 17	CN42	NC

CN2

CN01	NC	CN18	Rx 23
CN02	NC	CN19	Rx 24
CN03	NC	CN20	Rx 25
CN04	NC	CN21	Rx 26
CN05	Shielding	CN22	Rx 27
CN06	Rx 01	CN23	Rx 28
CN07	Rx 02	CN24	Rx 29
CN08	Rx 03	CN25	Rx 30
CN09	Rx 04	CN26	Rx 31
CN10	Rx 05	CN27	Rx 32
CN11	Rx 06	CN28	Rx 33
CN12	Rx 07	CN29	Rx 34
CN13	Rx 08	CN40	Rx 35
CN14	Rx 09	CN41	Rx 36
CN15	Rx 10	CN42	Rx 37
CN16	Rx 11	CN43	Rx 38
CN17	Rx 12	CN44	Rx 39
CN18	Rx 13	CN45	Rx 40
CN19	Rx 14	CN46	Rx 41
CN20	Rx 15	CN47	Rx 42
CN21	Rx 16	CN48	Rx 43
CN22	Rx 17	CN49	Rx 44
CN23	Rx 18	CN50	Rx 45
CN24	Rx 19	CN51	Shielding
CN25	Rx 20	CN52	NC
CN26	Rx 21	CN53	NC
CN27	Rx 22	CN54	NC

Detail B

(一維條碼內容-code 128:30x10mm)
Ex: H8573C-xx-xx-0001~9999
YFO料號-年-週-0001~9999(流水序號)

備註: 產品與controller board:EXC84H4254STAG一起出貨
HH8573C F/W:
無F/W為H0143需燒分位轉撥為HH8573C出貨

1.部品材料符合RoHS規定
2.部品材料不含鹵素物質

Elucidation	總成圖	Drive Model	Capacitance	Approved By	Gary Lin	06 / 02 / 20
Panal Size	289.47mm x 222mm	Drive Voltage	NA	Checked By	Gary Lin	06 / 02 / 20
Viewing Size	247.87mm x 186.4mm	Operating Temp	NA	Design By	Nicole	06 / 02 / 20
Front Material/Thickness	Clear Type / 0.125 tmm	Storage Temp	NA	Drawing By	Nicole	06 / 02 / 20
Rear Material/Thickness	Clear Type / 0.125 tmm	Connector	NA	Data Reserve		

avalue Technology Inc.

Sheet	1 / 1	Tolerance	±0.3	Unit	mm
Size	A4		±0.5°	Scale	1 / X

Pro (3)	
Model Number	H8573C
Drawing Number	H8573C-01

The quality of the materials should be meet YFO 「Non-use Substance Management Procedure」(Y-QEB-012)

EXC84H4254STAG

Projected Capacitive Touchscreen Controller

The EXC84H4254STAG is a projected capacitive (PCAP) touch screen controller that powered by EETI's high performance MCU EXC80H84. 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.

Features

- USB, RS-232 and I2C interface
- Support advanced water resistance
- Support active stylus
- Support RS232 flow control
- Support OGS, SITO, DITO, G/F, G/F/F, G/G, and Metal Mesh sensor.
- Comprehensive driver support
- eGalaxTouchManger tool support
- API support
- RoHS compliant

OS Support Matrix

OS	Version	Interfaces
Windows	Windows 10 IOT (#1) / Windows 10 / Windows 8 / Windows 7 Windows Vista / Windows 2000 / Windows XP (#1: Windows 10 IOT: support it with inbox driver only) (#2: I2C interface: need additional system configuration)	USB / RS232 I2C (#2)
Win CE	Win Embedded Compact 2013 / Win Embedded Compact 7 WinCE 6 / WinCE.Net	USB / RS232
Linux	CentOS, Debian, Fedora, Gentoo, Mandrake (Mandriva), Meego, Red Hat, Slackware, SuSE (OpenSuSE), Ubuntu (Xubuntu) and Yellow Dog etc. *Support most 32/64 bit Linux distribution versions, including Kernel 2.6.x / 3.x.x / 4.x.x*	USB / RS232 I2C
Android	Android 2.3 to latest version	USB / I2C
Mac	OSX 10.7.5 to 10.12	USB
QNX	RTOS V6.3 to V6.6	USB/ I2C

Technical Specifications

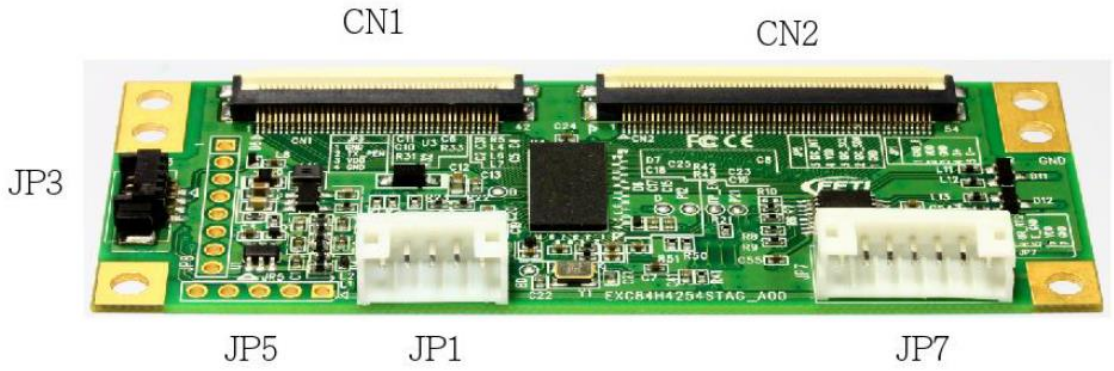
Circuit Board Dimension	33mm x 82.5mm x 7.2mm
Channels of Panel	Max. Tx:42 Rx:54 channels (include shielding pin)
Input Voltage	3.5V~5.5V.Typical 5V.
Operating Temperature	-40 to 85 ℃
Storage Temperature	-40 to 90 ℃
Relative Humidity	95% at 60 ℃, RH Non-condensing
Linearity*	Line drawing accuracy : 1pt +/- 1mm offset /10mm Touch (point) accuracy : 1pt +/- 1mm
Interface	USB 2.0 compliant full speed with LPM L1 supported. Configurable Serial Interface. UART: baud rate 115200, none parity, 8 data bits, 1 stop bit, support hardware flow control I2C: up to 400KHz, Voltage Level 3.3V.
Resolution	16384 ×16384 resolution
Power consumption(mA)	Active Mode: < 90mA Idle Mode : depends on firmware
Report rate(points/sec)*	> 100 Hz
Response time	Average < 25 ms

Disclaimer

- Performance spec such as report rate can be vary depends on touch sensor channel number, cover thickness, system condition and other parameters.
- Reference sensor channel pitch should be ranged from 5.0mm (Win10) to 8mm (Non-Win10).
- Special input performance can be influenced depends on module condition, contact material and volume, subjects including through thick glass touch, gloved-hand input, water resistance and noise immunity etc.
- Special features require to be pre-defined and pre-tuned during project development.
- For product that needing Windows 7/8/10 WHQL logo certification, please contact your supplier for a WHQL logo grade touch module.

Accessory Cables

- ETP-CB-SXU00, External USB cable
- ETP-CB-SXU01, Internal USB cable
- ETP-CB-SXR17 , External RS232 cable



FPC Pin Description

CN1					
PN		PN		PN	
1	TX_S2	21	TX20	41	TX0
2	TX39	22	TX19	42	TX_S0
3	TX38	23	TX18		
4	TX37	24	TX17		
5	TX36	25	TX16		
6	TX35	26	TX15		
7	TX34	27	TX14		
8	TX33	28	TX13		
9	TX32	29	TX12		
10	TX31	30	TX11		
11	TX30	31	TX10		
12	TX29	32	TX9		
13	TX28	33	TX8		
14	TX27	34	TX7		
15	TX26	35	TX6		
16	TX25	36	TX5		
17	TX24	37	TX4		
18	TX23	38	TX3		
19	TX22	39	TX2		
20	TX21	40	TX1		

CN2					
PN		PN		PN	
1	RX_S1	21	RX32	41	RX12
2	RX51	22	RX31	42	RX11
3	RX50	23	RX30	43	RX10
4	RX49	24	RX29	44	RX9
5	RX48	25	RX28	45	RX8
6	RX47	26	RX27	46	RX7
7	RX46	27	RX26	47	RX6
8	RX45	28	RX25	48	RX5
9	RX44	29	RX24	49	RX4
10	RX43	30	RX23	50	RX3
11	RX42	31	RX22	51	RX2
12	RX41	32	RX21	52	RX1
13	RX40	33	RX20	53	RX0
14	RX39	34	RX19	54	RX_S0
15	RX38	35	RX18		
16	RX37	36	RX17		
17	RX36	37	RX16		
18	RX35	38	RX15		
19	RX34	39	RX14		
20	RX33	40	RX13		

Connector Pin Configuration

JP1 USB connector

JP1	
1	GND_E
2	VDD
3	GND
4	D +
5	D -

JP5 I2C connector

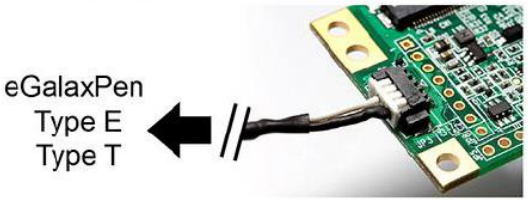
JP5	
1	GND
2	I2C_SDA
3	I2C_SCL
4	VDD
5	I2C_INT

JP7 RS232 connector

JP7	
1	UR_CTS
2	UR_TX
3	UR_RX
4	UR_RTS
5	GND_E
6	VDD
7	GND

JP3 Tethered active stylus connector

JP3	
1	GND_D
2	TX_PEN
3	VDD
4	GND_D



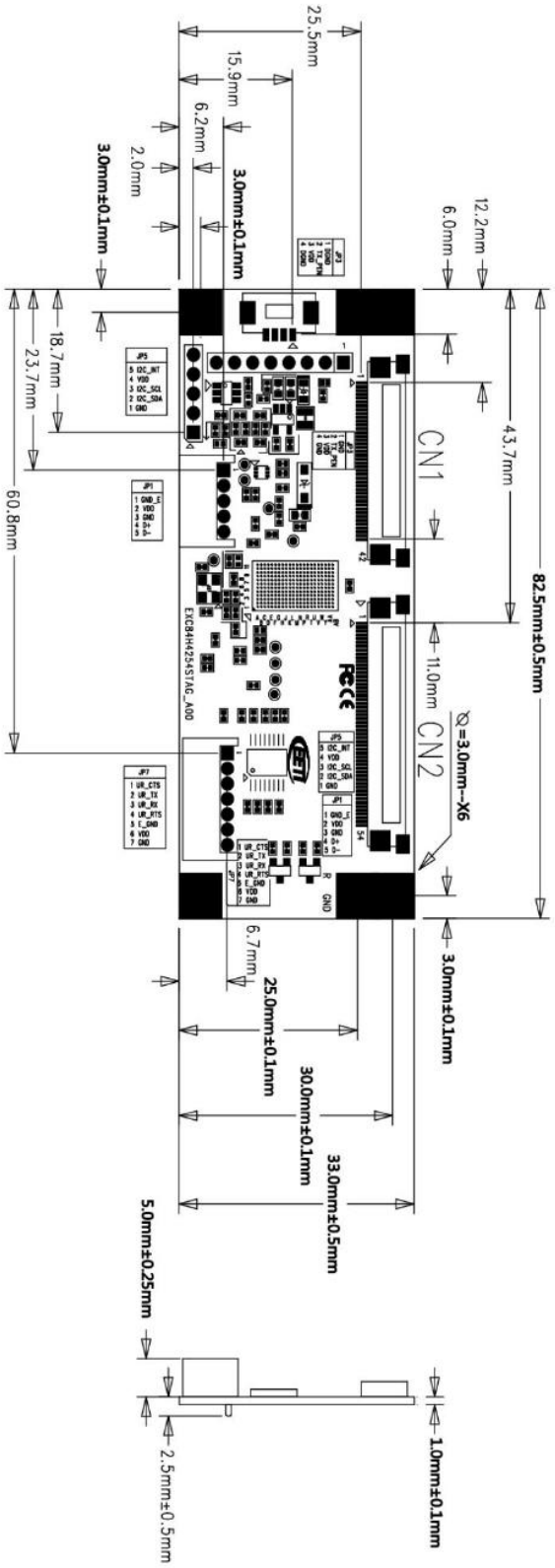
*JP3 connector is reserved for EETI tethered active stylus :

Type E : Entry-type active stylus

Type T : Tethered USB active stylus

Mechanical Specification

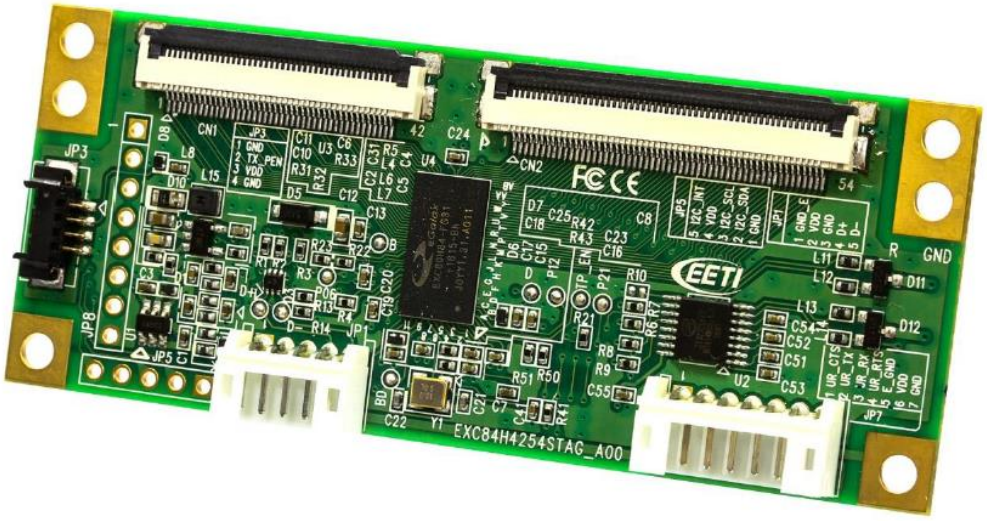
EXC84H4254STAG



*Dimensions without individual tolerance are ±0.1mm

Second Vendor for CN1 and CN2

Third Vendor for CN1 and CN2



Packing information

Model	PCBA weight (g)	PCBA size(mm)
ETP-MB-EXC84H4254STAG	9	82.5x33x7.2

Tray size(mm)	Tray Weight (g)	Controllers in a Tray
483x365x20	155	30

Box size(mm)	Box weight(g)	Tray layer	Total PCBA controllers in a Box(pcs)	Box with controllers total weight(g)
500x376x342	1170	Max. 26 Tray layers (2 Tray layers for only Protection, so max. 24 Tray with controllers)	30X24=720	~ 11680

Tray	Box

Carton label information

XXXX 有限公司 XXXX Co., Ltd.	
供應商 Supplier	禾瑞亞科技股份有限公司 eGalax_eMPIA Technology Inc.
訂單號碼 PO no.	
料號 PO Model no.	
供應商料號 Supplier Model no.	
數量 Quantity	xxxx pcs
出貨日期 Delivery Date	YYYY. MM. DD
備註 Note	PID:XXXX FW:VXXXX Color Spot:

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