

杭州凡诺电子有限公司  
**FANNAL ELECTRONICS CO., LTD**

**Specifications for Touch Panel**

Model NO: FN070AH022-V2.0

Revision: V2.0

**Approved For Specifications Only**

**Approved For Specifications And Sample**

<b>FANNAL</b>			<b>CUSTOMER</b>
<b>PREPARED</b>	<b>CHECKED</b>	<b>APPROVED</b>	<b>APPROVED</b>

**Address: 6th Floor No.77 Xingwang West Road, Hangzhou, Zhejiang, China**

**Phone: +86 (0)571 85161516**

**<http://www.fannal.cn>**

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## 1. Record of Revision

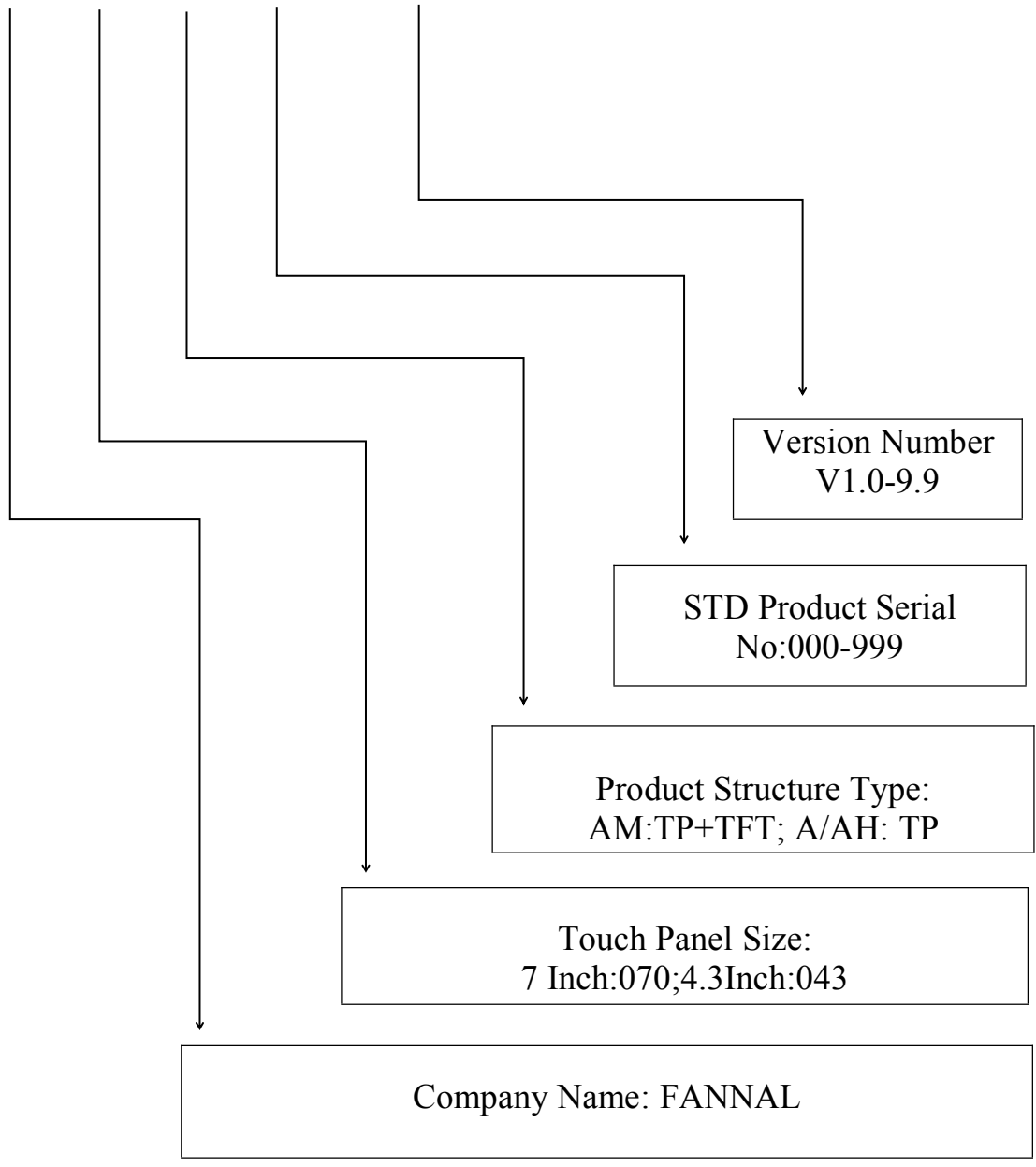
<b>NO.</b>	<b>Content</b>	<b>Page</b>	<b>Date</b>
1	Preliminary Specification was first issued	2	2016/7/19

## 2. Table of Content

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### 3. Module Numbering System

**FN 070 AH 022- V2.0**



## 4. Application

This improved projected capacitive touch panel module is applied to industrial applications which required touch input.

Industrial control, medical devices and automation industries (transportation, military, smart home, and others)

## 5. Feature

NO.	Item	Specifications		
1	Type	Projected Capacitive		
2	Input Mode	Finger	Gloved Finger	Passive stylus
3	Connector	COF-FPC		

## 6. General Specification

NO.	Item	Specifications	Unit
1	Touch Panel Size	7.0(Diagonal)	inch
2	Structure	G+G	
3	View Area	155.08(H)x86.92(V)	mm
4	Outline Dimension	175.00(H)x110.00(V)x1.83(D)	mm

## 7. Environmental Characteristic

NO.	Item	Specifications	
		Temperature	Humidity (Non-Condensing)
1	Operation	-30~80℃	45%-90%RH
2	Storage	-40~90℃	5%-95%RH

Note: Testing environment is under normal atmospheric pressure. When the ambient temperature is above 65℃, the humidity is allowed to be below 50%RH

## 8. Optical Characteristic

NO.	Item	Specifications
1	Transparency	87%±5%
2	Haze	>3%

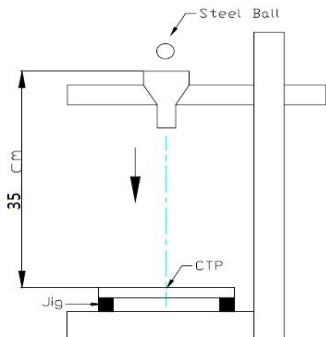
## 9. IC Specification

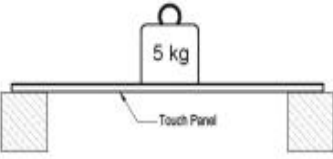
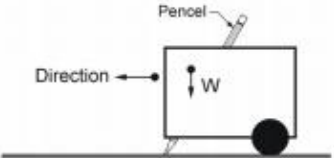
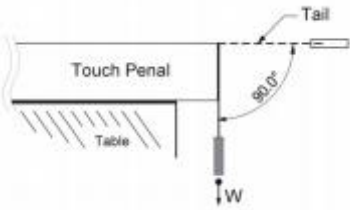
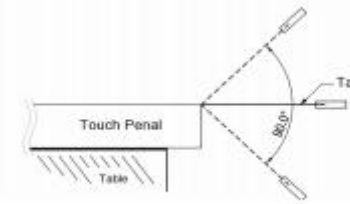
NO.	Item	Specifications
1	Driver IC	CYTMA568
2	Detect Points	10
3	Interface	I <sup>2</sup> C
4	Power Supply	2.8-3.3V

## 10. Pin Assignment

Pin No.	Symbol	I/O	Description
1	VCC	---	Power supply
2	RST	I	External reset signal, active low
3	INT	O	Interrupt signal, active low, asserted to request Host start a new transaction
4	SCL	I/O	I <sup>2</sup> C clock signal
5	SDA	I/O	I <sup>2</sup> C data signal
6	GND	---	System ground

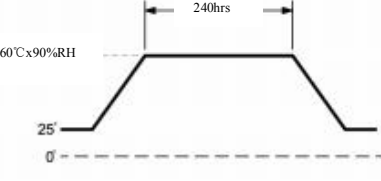
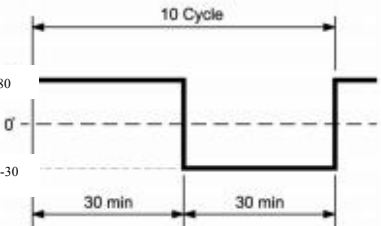
## 11. Mechanical Characteristic

NO.	Item	Condition	Specifications
1	Operating Force	Finger $\leq$ 10g	Satisfy- 1.Optical Characteristics 2.Electrical Characteristics
2	Impact	30.0 $\Phi$ DIA.Steel Ball/132g/Height=35cm/1 time, Impact at center area 	

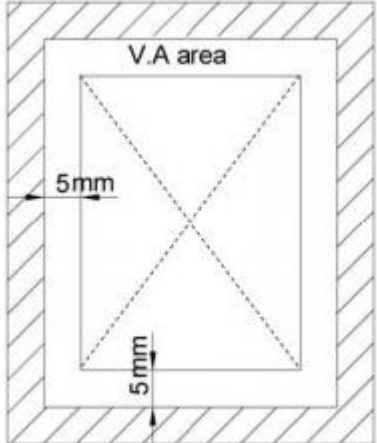
NO.	Item	Condition	Specifications
3	Static Load	5000g within 10cmΦ area for 30sec 	<p>Satisfy-</p> <ol style="list-style-type: none"> <li>1. Optical Characteristics</li> <li>2. Electrical Characteristics</li> </ol> <p>Appearance-</p> <ol style="list-style-type: none"> <li>1. Ignore test area</li> <li>2. No mechanical damage</li> </ol>
4	Hardness	6H pencil, pressure 750g/45° 	
5	Tail Peeling	500g/cm by vertical 90° for 30sec 	
6	Tail Bending	90° 10times left & right 	



## 12. Reliability Test

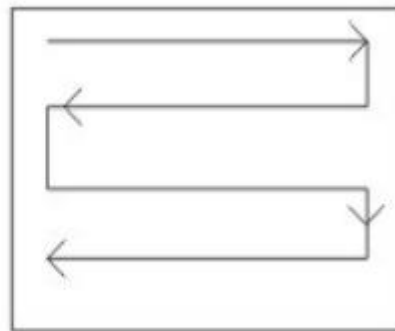
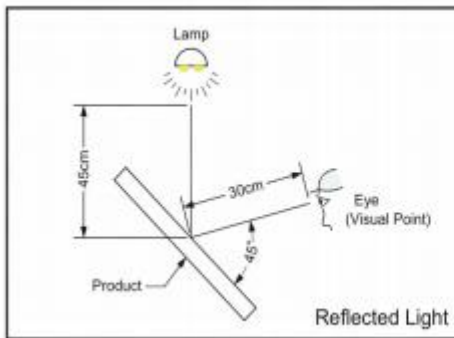
NO.	Item	Condition	Specifications
1	Constant Temperature/Humidity	<p>60°C X 90%RH, 240hrs and normalized for 24hrs</p> 	<p>Satisfy-</p> <p>1、Electrical Characteristics</p>
2	Heat Cycle	90°C/240hrs and normalized for 24hrs	
3	Cold Cycle	-40°C/240hrs and normalized for 24hrs	
4	Thermal Cycle	<p>-30°C~80°C [30min/cycle]*10cycles and normalized for 24hrs</p> 	

### 13. Function test

<p>Function Test</p>	<p>Test Method: Use <math>\Phi 8</math> copper stick to draw the square diagonal line.</p> <p>Test Area: 5mm inward view area.</p> <p>Disapproval Criteria: It is NG when we see the off-liner or jumping out spec shift.</p>	
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### 14. Appearance Inspection

The inspection is to be performed with two 20W(1800±500 LUX)fluorescent lamp lighting from the back or side.The panel is to be placed 30cm away from eyes.(Figure 13-1)



## 15. Appearance Specification

NO.	Item	Specifications	Judgment
1	Dot Contamination	1) $D \leq 0.2\text{mm}$ , $DS \geq 10\text{mm}$ 2) $0.20\text{mm} < D \leq 0.50\text{mm}$ , $DS > 10\text{mm}$ 3) $D > 0.50\text{mm}$	1) Ignore 2) OK with 5 3) NG
2	Linear Contamination	1) $W < 0.05\text{mm}$ 2) $0.05\text{mm} \leq W \leq 0.10\text{mm}$ $L \leq 5\text{mm}$ 3) $W \geq 0.10\text{mm}$ or $L \geq 5\text{mm}$	1) Ignore 2) OK with 5 3) NG
3	Cracks and Chips(Surface)	$X < 0.2\text{mm}$ , $Y < 0.2\text{mm}$ , $Z < \frac{1}{2}T$	Ignore

<Endorse>

1. All cosmetic defects are not accounted if found outside Active Area.  
(except for glass breakage, corner flaw, edge flaw, crack, etc. Please follow Appearance Inspection criteria upon inspection)

2. D=Diameter / W=Width / L=Length

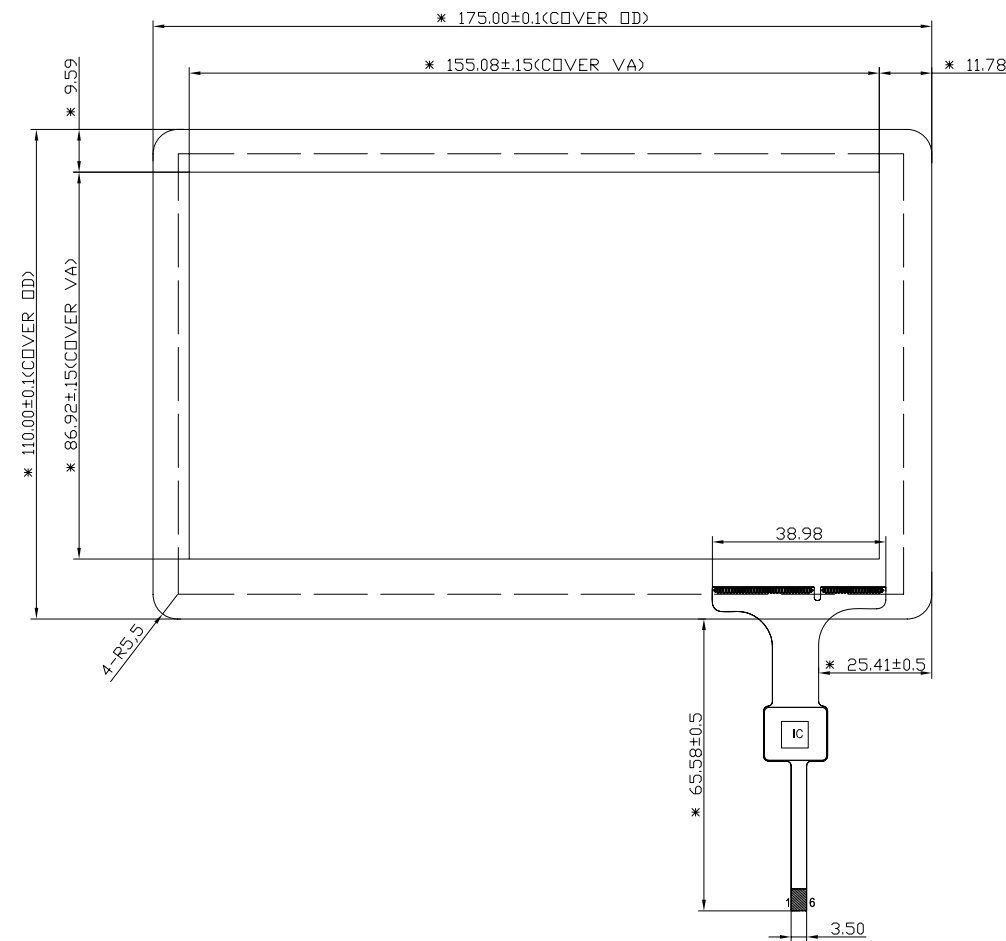
3. Tail: Slight bend mark is allowed on the tail; crack or tear is not allowed.

4. Particle Spots: Flaws found coating if transparent, please follow Particle Spots specification.

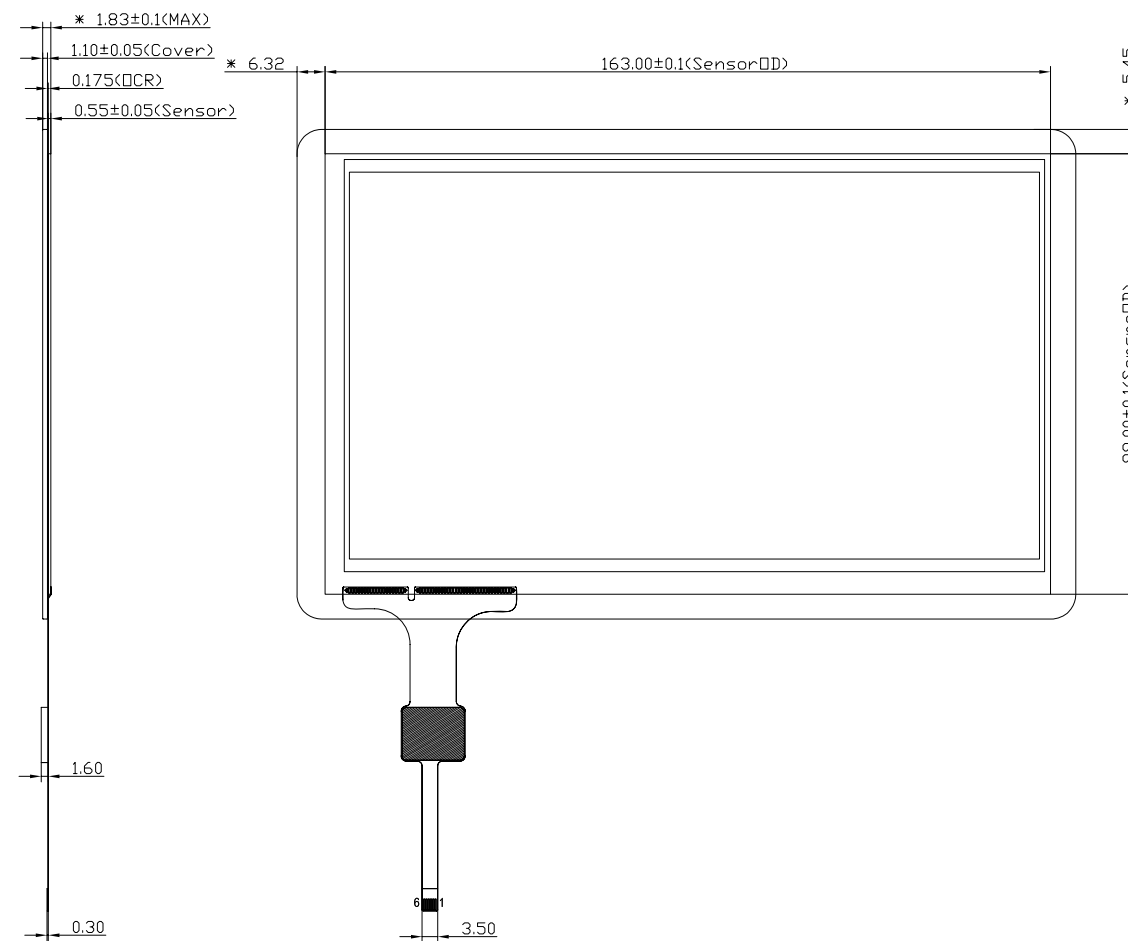
## 16. Mechanical Drawing

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ISSUE	AMENDMENT	DATE



Front view



Side view

Back view

\* Important Dimension

**NOTES:**

TOLERANCE UNLESS: x.x ±0.2  
 OTHERWISE SPECIFIED: x.xx ±0.1  
 DIMENSIONS IN MM: ANGULAR:±1°

**RoHS**

TECHNOLOGR CHARACTERISTICS CTP	
PROPERTY	Requirement
IC	CYTMA568-56
NO OF TOUCH	10
COVER GLASS Thickness	1.10mm
ITO GLASS Thickness	0.55mm
Surface Hardness	6H
Light transmission	87%±5%
Operating temperature	-30-80C°
Storage temperature	-40-90C°
Operating Humidity	45%-90%RH
Storage Humidity	5%-95%RH

**TP PIN ASSIGNMENT**

1	VCC(3.3V)
2	RST(3.3V)
3	INT(3.3V)
4	SCL(3.3V)
5	SDA(3.3V)
6	GND

**FANNAL** <sup>TM</sup>  
**FANNAL ELECTRONICS CO., LTD**

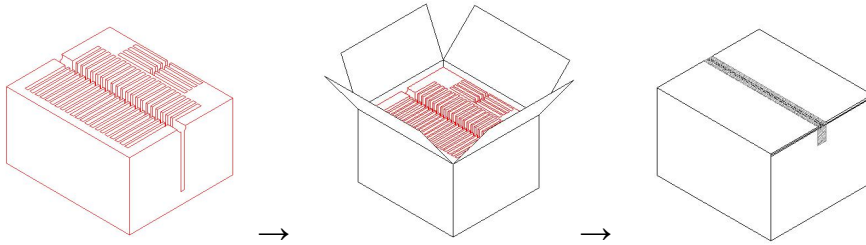
**MODEL NO: FN070AH022-V2.0**

THIRD ANGLE PROJECTION

	NAME	SIGN	DATE
DRAWN:	Jevon		30/05/2016
CHECKED:			
APPROVED:	Jeff		30/05/2016

PROJECT NO:	
CUSTOMER NO:	
FILE NO:	REV:1
SHEET 1 OF 1	1

## 17. Packaging



SIZE: 53X36X27.5cm