

TOUCH PANEL  
**SPECIFICATION**

<b>Model:</b>	CTP-UE047HD-RB25-A011
<b>Version:</b>	V1.0
<b>Date:</b>	2018.07.04

- Preliminary Specification** 样品规格书
- Final Specification** 量产规格书

**Customer Confirmation** 客户确认

Approved by	Notes

Please return one of the copies of the specification with your signature to us within two weeks after you receive this document. If it is not returned, we will assume that you agree to the entire contents of this specification document.

请贵司在收到规格书的两周内, 将签好字的规格书原件或者复印件寄回. 如果没有返回, 我司将会认为贵司已经默认接受产品规格书中的全部资料和规范.

**VIEWE Confirmation** 优奕确认

Prepared by	Reviewed by	Approved by

### REVISION HISTORY

Revision 版本号	Date 日期	Contents of Revision Change 修改内容	Remark 备注
V1.0	2018.07.04	Preliminary release	

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## 1. GENERAL INFORMATION

### 1.1 Features

Item 项目	Specification 规格	Remark 备注
TP Size(触屏尺寸)	4.7	Inch(Diagonal)
Overall Dimensions (外形尺寸)	64.8(W)*113.15(H)*1.45(D)	mm
View Area(可视区)	58.60(W)*103.80(H)	mm
Haze(雾度)	≤1%	-
Light Transmittance(透光率)	≥85%	-
Surface Hardness(表面硬度)	≥7H	500gf
Touch Response Time(相应时间)	48	ms
IC Model(芯片型号)	GT5688	-
TP Structure(触屏结构)	G+F+F	-
Connection Model(连接方式)	ZIP	6PIN
Interface Type(接口类型)	I <sup>2</sup> C	
Touch Point(触控点数)	5	Point
Resolution(分辨率)	720X1280	Pixel
Channel Number(通道数)	16X14	TX*RX
Lens Type(盖板材质)	旭硝子	T=1.1mm

## 2. ELECTRICAL CHARACTERISTICS

### 2.1 Absolute Maximum Ratings

Item 项目	Symbol 符号	Min. 最小值	Max. 最大值	Unit 单位
Analog Power	VCC_TP	-0.3	4.2	V
Operating temperature	Top	-20	70	°C
Storage temperature	Tst	-30	80	°C

(Ta=+25°C, AGND=DGND=0V)

Note1: All of the voltages listed above are with respect to DGND=AGND=0V

Note2: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above.

### 2.2 Recommended Operating Conditions

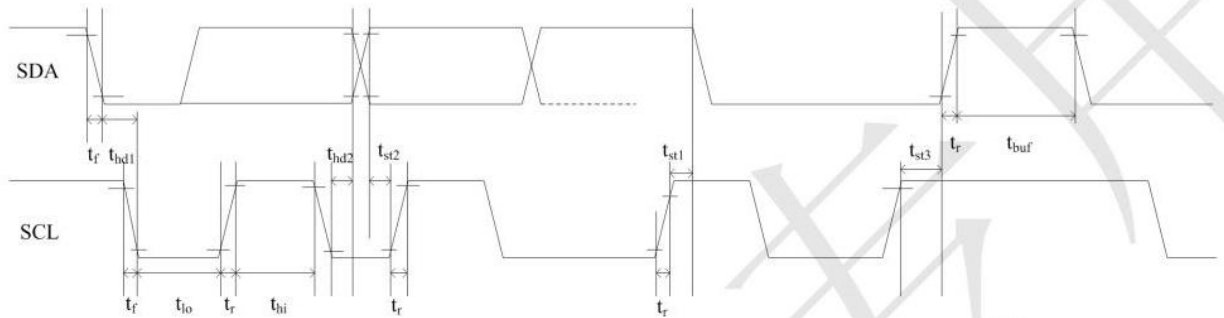
Item 项目	Symbol 符号	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位
Power For Analog Voltage	VDD_TP	2.8	3.3	3.6	V
Logic Input High Voltage	V <sub>IH</sub>	0.7VDDIO	-	VDDIO	V
Logic Input Low Voltage	V <sub>IL</sub>	0	-	0.3VDDIO	V
Module Power Consumption	P <sub>TP</sub>	-	0.056	-	Watt

(Ta=+25°C, AGND=DGND=0V)

Note: All of the voltages listed above are with respect to DGND=AGND=0V

## 2.3 Power On Timing

GT5688 提供标准的 I<sup>2</sup>C 通讯接口，由 SCL 和 SDA 与主 CPU 进行通讯。在系统中 GT5688 始终作为从设备，所有通讯都是由主 CPU 发起，建议通讯速度为 400Kbps 或以下。其支持的 I<sup>2</sup>C 硬件电路支持时序如下：



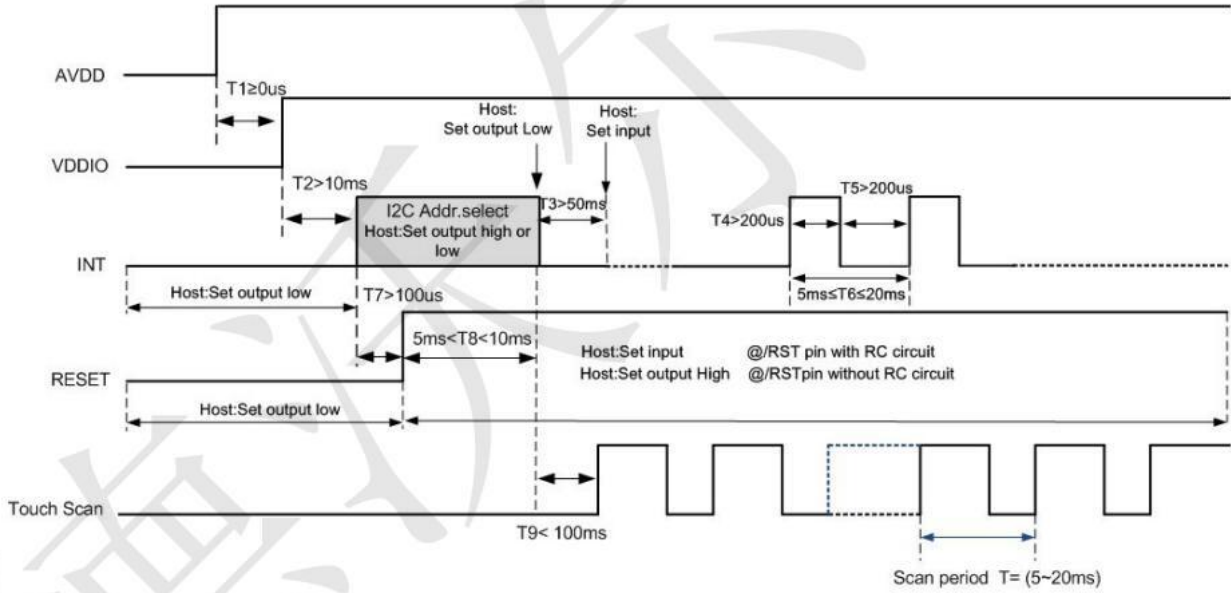
**测试条件 2：3.3V 通讯接口，400Kbps 通讯速度，上拉电阻 2K**

Parameter	Symbol	Min.	Max.	Unit
SCL low period	$t_{lo}$	1.3	-	us
SCL high period	$t_{hi}$	0.6	-	us
SCL setup time for START condition	$t_{st1}$	0.6	-	us
SCL setup time for STOP condition	$t_{st3}$	0.6	-	us
SCL hold time for START condition	$t_{hd1}$	0.6	-	us
SDA setup time	$t_{st2}$	0.1	-	us
SDA hold time	$t_{hd2}$	0	-	us

GT5688 的 I<sup>2</sup>C 从设备地址有两组，分别为 0xBA/0xBB 和 0x28/0x29。主控在上电初始化时控制 Reset 和 INT 口状态进行设定，设定方法及时序图如下：



上电时序图:

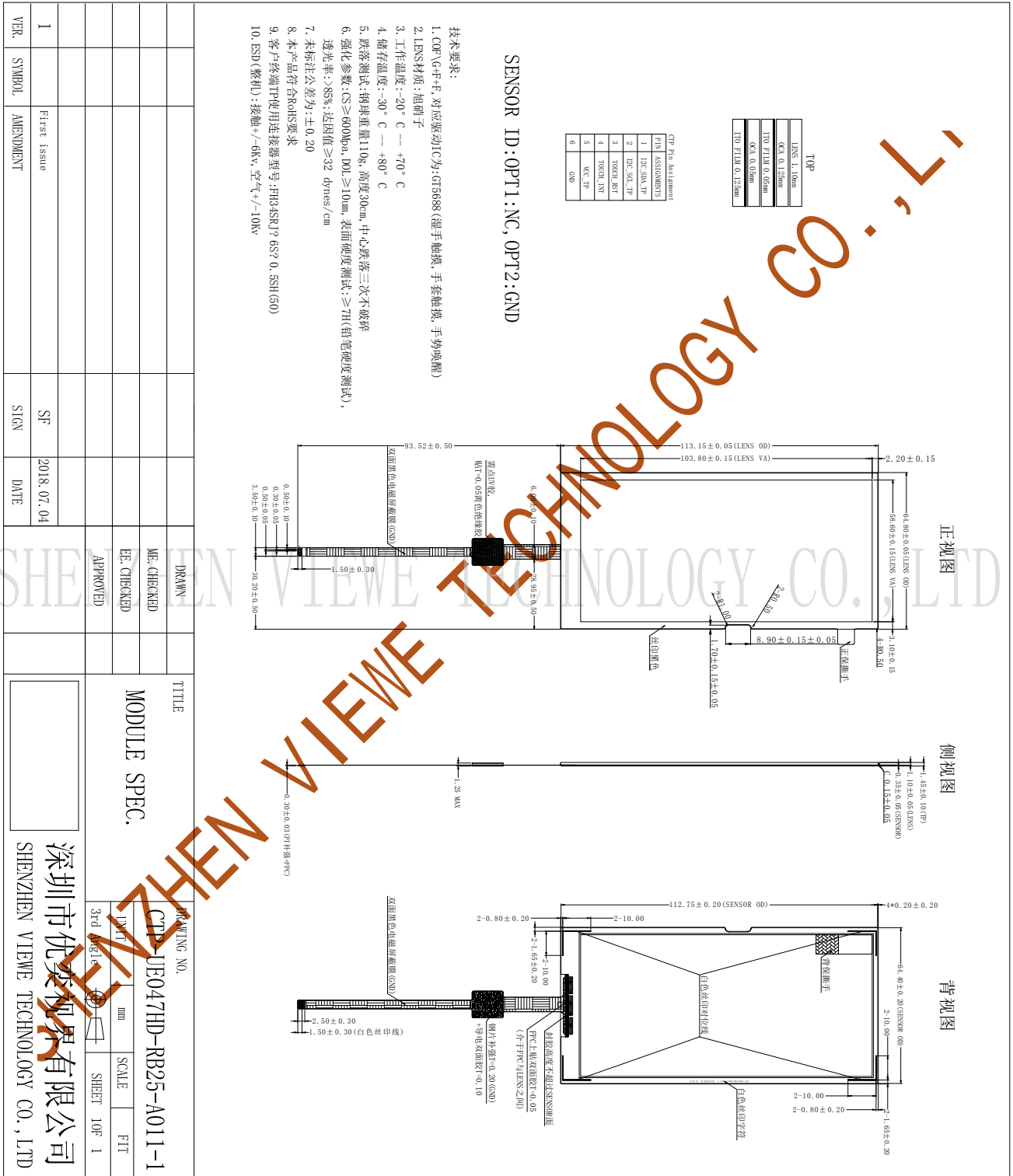


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### 3. MECHANICAL DRAWING





## 4. PIN ASSIGNMENT

Pin No. 序号	Symbol 符号	I/O	Description 描述
1	SDA		I2C Serial Data Input or Output
2	SCL		I2C Serial Clock
3	RST		Global reset for TP, active is lo
4	INT		Interrupt output Pin.
5	VCC		Power supply.
6	GND		Power Ground.

I: Input; O: Output; P: Power

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## 5. RELIABILITY

Item 项目	Test Condition 测试条件	Remark 备注
High Temperature Storage	Ta =+80°C / 96Hours	Note1,2,3
Low Temperature Storage	Ta =-30°C / 96Hours	Note1,2,3
High Temperature Operating	Ta =+70°C / 96Hours	Note1,2,3
Low Temperature Operating	Ta =-20°C / 96Hours	Note1,2,3
Temperature Cycle Storage Test	-20°C/30min ↔+70°C /30min for 30cycles,Transfer time less than 5min	Note2,3
Thermal Humidity Storage Test	60°C x 90%RH / 96Hours	Note2,3
Ball Drop Test	Test ball weight:130g Test height:30cm Test position: center/3times	Note 5
Bonding Tension Test	≥500gf/cm, Sensor face up, FPC& sensor for 90°	Note 6
ESD(Whole Machine)	Contact: ±6KV, Air: ±10KV 150PF/330Ω,5Points/panel,5times	Note4

### Inspection after Test:

Note1: Ta is the ambient temperature of samples.

Note 2: In the standard condition, there shall be no practical problem that may affect the display function. After the reliability test, the product only guarantees operation, but doesn't guarantee all the cosmetic specification.

Note 3: Before cosmetic and function tests , the product must have enough recovery time, at least 2 hours at room temperature.

Note 4: In case of malfunction defect caused by ESD damage, if it would be recovered to normal state after resetting, it would be judged as a good part.

Note 5: TP without crack.

Note 6: FPC and sensor are not separated.

Note 7: The right to interpret the reliability test standard above belongs to VIEWE.