

# Product Specification

## 产品规格书

Product model 产品型号	CP-190A160Y
Solution 方案	<input checked="" type="checkbox"/> Industrial/工控 <input type="checkbox"/> Commercial/商业 <input type="checkbox"/> Military/军工
Versions 版本	V2.0
Date 制作日期	2020.03.20

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	



---

## Contents

### 目录

1.0	Circumscription/适用范围 .....	4
2.0	Product Specification/产品结构 .....	4
2.1	Product Dimension/产品尺寸.....	4
2.2	Dimension Drawing/尺寸图.....	5
3.0	Characteristics Specification/产品特性 .....	6
3.1	Optical Characteristics/光学特性.....	6
3.2	Environmental Characteristics/环境特性.....	6
3.3	Electrical Characteristics/电子特性.....	7
3.4	Pin Assignments/Pin 定义 .....	7
4.0	Reliability Specification/产品可靠性.....	8
4.1	Electrostatic Discharge/静电抗扰测试.....	8
4.2	Environmental Test/环境测试.....	8
4.3	Mechanical Characteristics/机械特性.....	9
5.0	Notice/注意事项.....	10

## 1.0 Circumscription/适用范围

The specification is for Projected Capacitive Touch Panel.

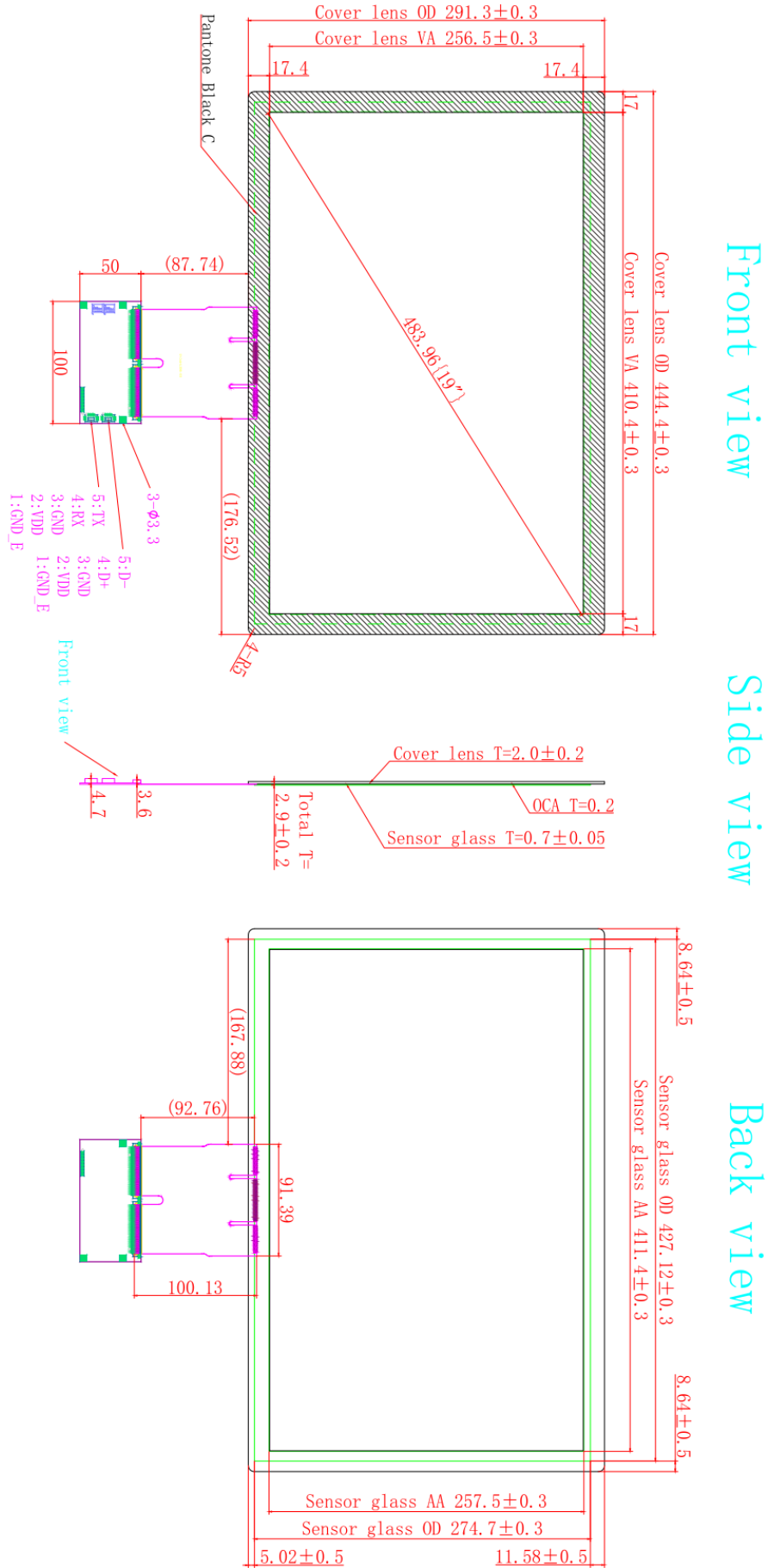
此规格书适用于投射式电容触摸。

## 2.0 Product Specification/产品结构

### 2.1 Product Dimension/产品尺寸

No. /序号	Item/项目	参数	Unit/单位
1	Type/型式	Projective Capacitive/投射式电容屏	
2	Connector/连接方式	COB	
3	Screen Diagonal/屏幕寸别	19 [16:10]	Inch
4	Structures/产品结构	G+G	
5	Outline Dimension/外形尺寸	291.30 (W)*444.40 (L) $\pm$ 0.3	mm
6	View Area/可视区	256.50 (W)*410.40 (L) $\pm$ 0.3	mm
7	Active Area/动作区	257.50 (W)*411.40 (L) $\pm$ 0.3	mm
8	Sensor Thickness/Sensor 厚度	0.7 $\pm$ 0.05	mm
9	Cover Thickness/玻璃厚度	2.0 $\pm$ 0.2	mm
10	Total Thickness/总厚度	2.9 $\pm$ 0.2	mm
11	Tail Length/出线长度	100.13	mm
12	Logo	无	
13	Printing/丝印颜色	Black/黑色	
14	Special Design/特殊设计	无	

## 2.2 Dimension Drawing/尺寸图



### 3.0 Characteristics Specification/产品特性

#### 3.1 Optical Characteristics /光学特性

No./序号	Item/项目	Specification/规格
1	Transmittance/穿透率	>85%

Note: Light source C-light (Measure point: Center of panel)

备注: 光源 C-light (测量点: 屏幕中心)

#### 3.2 Environmental Characteristics/环境特性

No./序号	Item/项目	Specification/规格	
		Temperature 温度	Humidity [Non-Condensing] 湿度 [不可结露]
1	Operation Conditions 工作环境	-40°C~+85°C	20%~90%RH
2	Storage Conditions 储存条件	-40°C~+95°C	20%~70%RH

### 3.3 Electrical Characteristics/电子特性

No. /序号	Item/项目	Specification/规格
1	Input Mode/操作模式	■Finger/手指触控    ■Active pen/主动笔触控
2	Support Points/支持点数	1~10
3	Interface/接口	USB (Other according to controller/其他根据控制板)
4	Supply Voltage/工作电压	USB 5 V
5	Power Consumption/功耗	<0.55 W
6	Report Rate/报点率	>100 Hz
7	Response Time/响应时间	<25 ms
8	Linearity/线性度	$X \leq 1.0\%$ , $Y \leq 1.0\%$
9	Life Time/使用寿命	Knock Test/点击测试 >50,000,000 times

### 3.4 Pin Assignments/Pin 定义

No. /序号	Name/名称	Description/说明
1	GND <sub>E</sub>	Earth/大地
2	VCC	Supply Voltage/输入电压
3	GND	Ground/地线
4	DP	USB D+ Signal/D+信号
5	DM	USB D- Signal//D-信号

Note: Please strictly abide by our PIN assignments of the interface connection when changing the USB Cable, Otherwise the controller might be burned when powered on  
 备注: 更改数据线请严格按照我司数据线 PIN 定义接线, 接线错误会直接烧坏控制卡。

## 4.0 Reliability Specification/产品可靠性

### 4.1 Electrostatic Discharge/静电抗扰测试

No. /序号	Item/项目	Specification/规格
1	ESD [Contact/接触]	8kv
2	ESD [Air/空气]	15kv

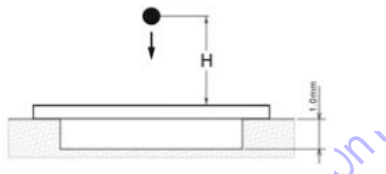
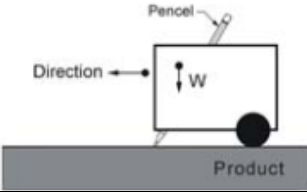
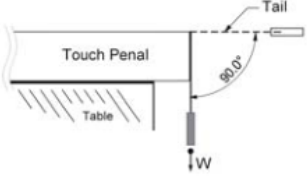
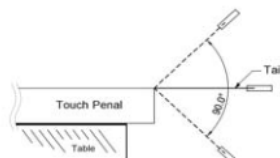
Note: Please make test under the condition of installed machine/equipment.

备注: 请在整机条件下测试.

### 4.2 Environmental Test/环境测试

No. /序号	Item/项目	Condition/条件	Specification/规格
1	Constant Temperature/Humidity [恒温恒湿测试]	60°CX90%RH 240 hrs. and normalized for 4 hrs. [60°CX90%RH 240 小时, 恢复常温 4 小时后开始测试]	Satisfy- 1. Electrical Characteristics 满足- [1. 电子特性]
2	Heat Cycle [高温测试]	85°C/240 hrs. and test during constant temperature normalized for 4 hrs. [85°C/240 小时, 恒温过程中需测试, 恢复常温 4 小时后再测试]	
3	Cold Cycle [低温测试]	-40°C/240 hrs. and test during constant temperature normalized for 4 hrs. [-40°C/240 小时, 恒温过程中需测试, 恢复常温 4 小时后再测试]	
4	Thermal Cycle [冷热冲击测试]	-40°C~85°C [60 min./cycle] *10 cycles and normalized for 4 hrs. [-40°C~85°C, 每循环 60 分钟, 共 10 次循环, 恢复常温 4 小时后开始测试]	

### 4.3 Mechanical Characteristics/机械特性

No. /序号	Item/项目	Condition/条件	Specification/规格
1	Operating Force [操作力度]	Finger $\leq 10g$ [手指触摸 $\leq 10g$ ]	Satisfy- 1. Optical Characteristics. 2. Electrical Characteristics.  Disallowed- 1. Ignore test area 2. Mechanical damage.  [满足- 1. 光学特性 2. 电子特性  不允许- 1. 忽略测试区 2. 机械损伤]
2	Impact [撞击测试]	Steel Ball/200g Height=150cm/1 time, Impact at center area [200g 不锈钢球; 高度=150cm/中央区域撞击 1 次] 	
3	Hardness [硬度测试]	6H pencil, pressure 750g/45° [6H 铅笔, 压力 750g/45° (ASTM D3363)] 	
4	Tail Peeling [剥离测试]	800gf/cm by vertical 90° for 30sec [800gf/cm 垂直 90° 静置 30 秒] 	
5	Tail Bending [折弯测试]	90° 10 times left & right [90° 角, 左右来回 10 次] 	

---

## 5.0 Notice/注意事项

5.1 Due to the system of capacitive touch screen is made of glass, please do not strong impact, The impact, Or Fall from height; 由于电容式触摸屏是由玻璃所制, 请勿强力撞击, 或高处落下;

5.2 Please do not stack up TPs. Don' t load on TP; 保存时请勿重叠放置, 或重物叠压;

5.3 Please do not put the capacitive touch screen itself or FPC direct contact with metal material; 电容式触摸屏本身或 FPC 具有导电性, 避免与金属物质直接接触;

5.4 When assembling, please do not bend or strength to pull FPC, Avoid to cause the injured; 安装时请勿折弯或强力拉扯 FPC, 避免造成折伤;

5.5 When assembling, please do not touch ink face of back of TP, Avoid to scratches; 安装时请勿用硬物接触电容式触摸屏背后的油墨, 避免造成刮伤;

5.6 When assembling, please do not contact the visual area, if have dirty in VA, Recommend the use of Cleaning Naphtha to clean, prevent using any kind of chemical solvent, acidic or alkali solution; 安装时请勿接触可视区, 如果触摸造成脏污, 建议使用去渍油清洁, 不能使用化学溶剂或酸碱液进行清洁;

5.7 Operation of the capacitive touch screen, Use finger or conductive touch pen, please; must avoid high voltage and static electricity. 操作电容式触摸屏时, 请采用手指或导电性笔触摸; 注意预防高压和静电。