上海冠显光电科技有限公司
Shanghai Top Display Optoelectronics Co., LTD

☐ **Pre-specification**

☑ **Final-specification**

MODEL	:	**TY068WXH02NF**
ISSUED DATE	:	**2025-02-22**
VERSION	:	**1.2**

Version record

Issued Date	Description	Version	Editor	Audit
2023-12-12	First version	1.0		
2024-05-23	Final version	1.1	Xenia	Cain
2025-02-22	Final release(Adding debugging tools)	1.2	Xenia	

Content

1. Hardware Introduction 1

1.1. Product Appearance 1

1.2. Connector Pin Definitions 2

2. Product Specifications 3

3. Reliability Test 5

3.1. ESD Test 5

3.2. Electrical Fast Transient Group Pulse Test （EFT） 6

4. Product Size 7

5. Debugging Tools 8

6. Model Definition 9

7. Sale and Service 10

8. Disclaimer 11

1. Hardware Introduction

This chapter mainly introduces the product appearance diagram and hardware configuration diagram.

1.1. Product Appearance

The following is the appearance of the product corresponding to this model (hardware interfaces, etc., vary according to the specific model of backplane components), as shown in Figure 1.1-1

Note: There is no key structural process modification or major layout adjustment, only changes in product process or reliability. The company will not initiate changes to the outside product appearance. The specific items are subject to the received goods.



Figure 1.1-1 TY068WXH02NF structure appearance reference diagram

1.2. Connector Pin Definitions

Pin Name	Type	Reset state	Internal Configurable Pull-up and Pull-down Resistors	Default drive capability (mA)	Voltage	Function
GND_IN	POWER	0V	-	-	0V	POWER-GND
GND_IN	POWER	0V	-	-	0V	POWER-GND
485-	-	Z	√	20	3.3V	485-/485_B
RXD	-	Z	√	20	3.3V	UART3-RX (to user's TX)
TXD	-	Z	√	20	3.3V	UART3-TX (to user's RX)
485+	-	Z	√	20	3.3V	485+/485_A
POWER_IN	INPUT	3.3V	-	500	3.3V	POWER-INPUT, DC3.3V
POWER_IN	INPUT	3.3V	-	500	3.3V	POWER-INPUT, DC3.3V

2. Product Specifications

● Product parameter	
Model	TY068WXH02NF
Product serial	Standard Series
Core processor	TR660
Size	6.75 inch
Resolution	480RGB×1280
Active area(mm)	160.51(W) ×60.19(H)
Product size(mm)	201(W)×68(H)×15.6(T)
Color	16.7M,24 bit RGB
Storage	Customer available 60M Bytes
Pictures format	JPG/PNG
Video playback	H.264 format video only
Audio playback	MP3 and WAV format audio support
Download pictures	TYPE-C
Firmware update	TYPE-C
● LCD screen	
Display type	TFT LCD IPS
Back light	LED
Brightness(cd/m²)	420
Contrast	1500
Life time(hour)	50000
Perspective(T/B/L/R)	(85/85/85/85)
● Touch panel	
Touch mode	None
● Environmental electrical parameters	
Voltage	4.5~24V DC

Power consumption	12V/210mA (Maximum starting current) 12V/80mA (Turn off the backlight)
Working temperature	-20℃～70℃
Storage temperature	-30℃～80℃
Working humidity	10%~90%RH
Storage humidity	10%~90%RH
● Communication interface parameters	
Communication mode	RS-485/RS-232/3.3V TTL
Baud	1200~115200,typical value is 115200
Data frame format	8N1
Communication plug-in specification	HY2.0-8P
● Other hardware specifications	
Micro TF card	Support
Buzzer	Support
TYPE-C	Support
RTC	Support
Speaker	Support 4Ω/2W speaker

3. Reliability Test

3.1. ESD Test

3.1.1. Implementation Standards

Implementation standards	GB/T 17626.2
Performance criteria	B

3.1.2. Test Environment

Test ambient temperature: 25℃

Test environment humidity: 50%

Test process: place the product on the test bench, conduct contact and air discharge in turn around the iron frame of the serial port screen and the display area, and observe whether there is any abnormal reset and restart display.



3.1.3. Test Data Results:

Discharge type	Discharge value	Test Results	Performance Criteria
Contact	±4KV	Test Passed	B
Discharge	±8KV	Test Passed	B

3.2. Electrical Fast Transient Group Pulse Test （EFT）

3.2.1. Implementation Standards

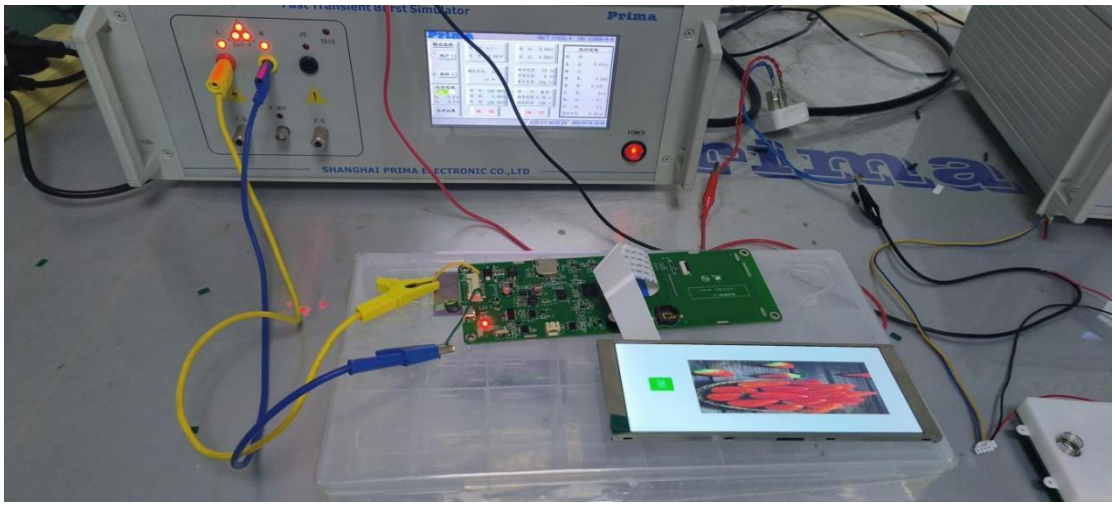
Implementation standards	GB/T 17626.4

3.2.2. Test Environment

Test ambient temperature: 25℃

Test environment humidity: 50%

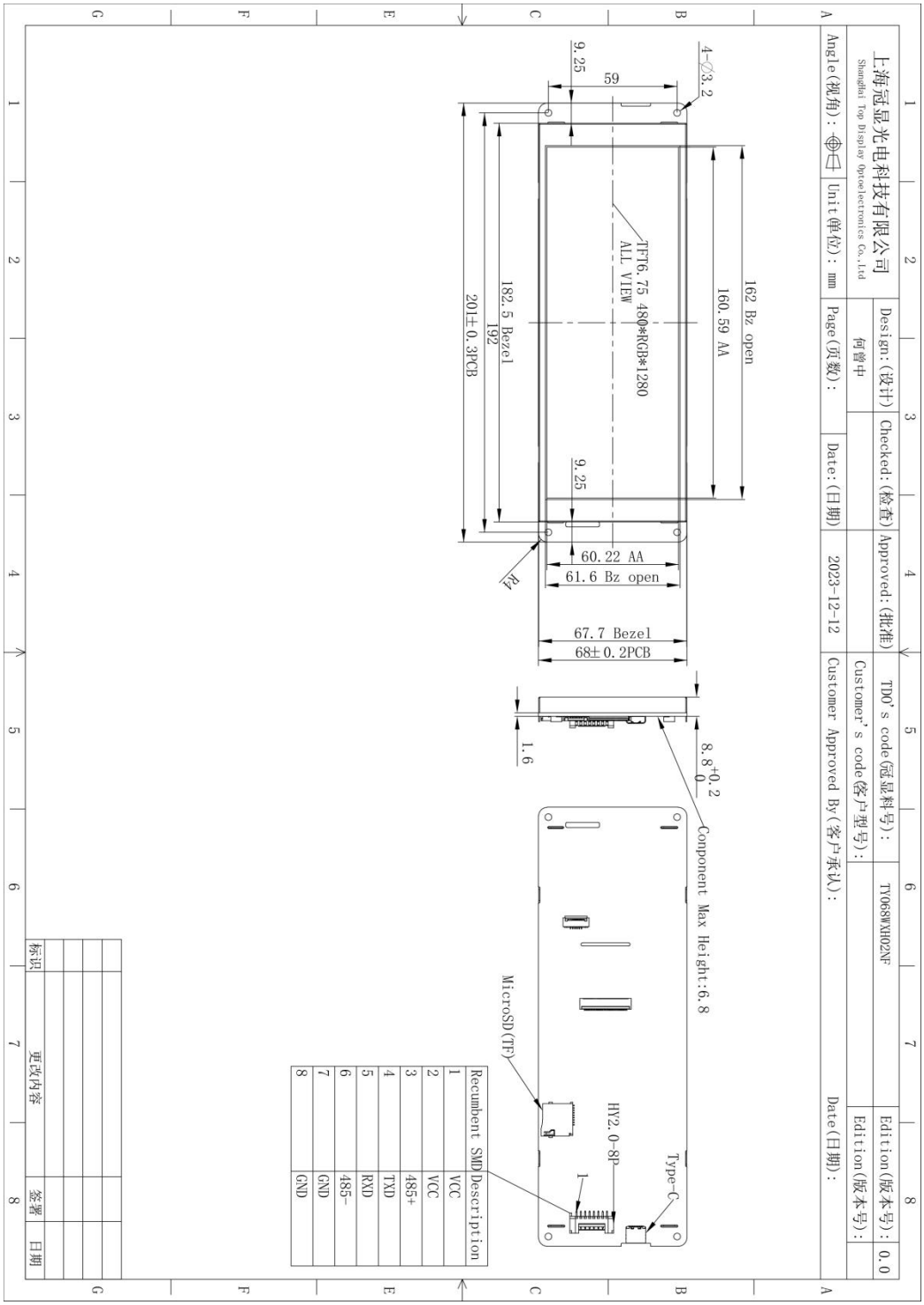
Test process: Place the product flat on the test bench, 10cm high, and supply power to the smart screen through the power supply after coupling the pulse group by the pulse group generator. Observe the screen during the experiment to see if there are phenomena such as reset and restart, abnormal display, touch abnormality, and so on.



3.2.3. Test Data Results:

Implementation standards	GB/T 17626.4
Performance criteria	B

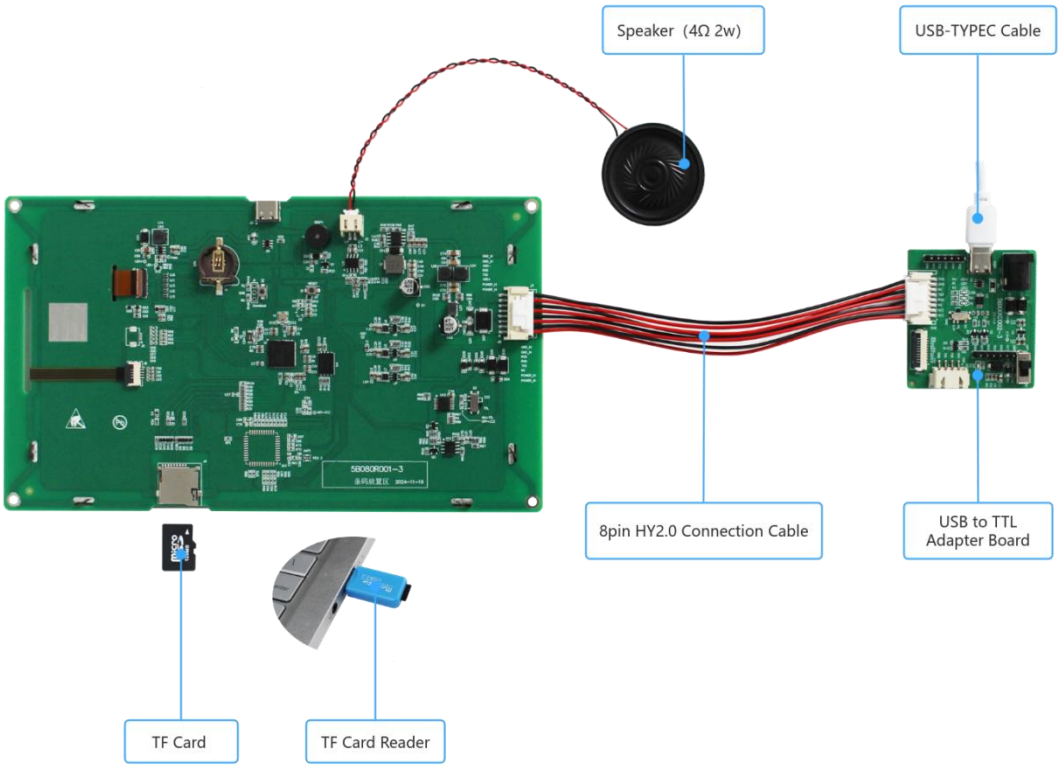
4. Product Size



(Product drawings)

5. Debugging Tools

It is recommended for new users of TDO smart LCMs to purchase official accessories. For more details, please refer to customer service center.



(The above diagram shows the use of the debugging tools, not the product diagram. Please refer to document 1.1 for the physical drawing of this product.)

6. Model Definition

T Y 068 WX H 02 N F

1 2 3 4 5 6 7 8

① : 1 position--TDO abbreviation, fixed。

② : 1 position--U(U series serial port)/P(parallel port)/Y(Y series serial port)/H(HDMI interface type)/S(adapter board)/L

③ : 3 position--size,eg.068->6.75 inch

④ : 2 position--resolution abbreviation

⑤ : 1 position--H (standard series)/C (basic series)/L (MINI board series)/P (with housing series)/M (medical series)/A (AV series)

⑥ : 2 position---serial number

⑦ : 1 position---C (with capacitive touch panel)/R (with resistive touch panel)/N (without touch panel)

⑧ : 1 position-----Platform: F-TR660 / G-TR540 / H-TR230M /J -TR240 / K-TR661 / D-TR670 / 0-Android / 1-Linux

7. Sale and Service



TEL:021-6429098

FAX:021-6429089

EMAIL:sales@shtdo.com

WEB:www.shtdo.com

ADDR:Shanghai, Minhang district, Xinjunhuan Road 88, Building13A, 4th floor

Online shop:http://shtdo.en.alibaba.com/

8. Disclaimer

This document provides product information about Shanghai Top Display Optoelectronics Technology Co., Ltd. (hereinafter referred to as Shanghai Top Display), which aims to assist customers to speed up product development progress, short development cycles, any routine programs provided in the service process or other channels , technical documents, data manuals, product drawings and other materials and information are for reference only, and customers have the right not to use or to modify and use for their own reference. The company does not provide any guarantee of completeness and reliability. If the customer causes special, incidental or indirect losses for any reason during the use process, the company does not assume any responsibility.