



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

MODEL NO. : TY035VGC12CT

ISSUED DATE: 2020-09-25

VERSION : 1.1

☒ Preliminary Specification

☐ Final Product Specification

Customer : \_\_\_\_\_

Approved by	Notes

Top Display:

Prepared by	Checked by	Approved by





I Revision History

Issued Date	Description	Ver.
2019-07-25	First release	1.0
2020-09-25	Change PIN description and update drawing	1.1



## I General specifications

Items	parameters	Description
Display mode	TFT LCD	IPS all view angle
Backlight Type	LED	
Dimension	BEZEL: 78.3(L)*65.3(W) PCB O/D:85(L)*80(W)	mm
Color	262K	RGB18bit
Brightness	480 cd/m <sup>2</sup>	
Active Area	70.08mm×52.56mm	3.5inch
Touch panel type	Capacitive touch panel	
Resolution	640RGB×480	
Other hardware	RTC	
Special features	Multi-media play, boot video support	Up to 1080p with most video formats

## I Environment and Electrical Characteristics

Items	parameters
Input voltage range	5.0VDC
Power consumption	5V/300mA (Maximum brightness)
Working temperature	-20℃~+60℃
Storage temperature	-30℃~+70℃
Working humidity	10%~90%RH
Three anti-treatment	NO

## I Communication interface parameter

Items		parameters
Communication interface type		UART with 3.3V TTL level ,follow TGUS® protocol
Serial baud rate	Minimum value	2400
	Typical value	9600
	Maximum value	115200
Data format		1 start bit -8 data bits - no parity bit -1 stop bit (8N1)
Micro USB		To update FW and UI
User connection interface		16PIN-1.0MM FFC connector (top contact) or 6PIN-2.0 pin header

**I Memory parameters**

Parameters	Description
SPI FLASH	10MB for user to store picture, icon, font ,video, audio ...

**I Pin description**

16PIN-1.0MM pitch FFC connector (top contact)

Pin Assignment	Pin Name	Type	Description
1,2,15,16	+5V	POWER	5.0V DC
7,10	NC	/	/
8	DM		USB-DM ( it can be NC)
9	DP		USB-DP( it can be NC)
5,12	DOUT	Output	UART Transmit, Connect to RXD of USER MCU
6,11	DIN	Input	UART Receive ,Connect to TXD of USER MCU
3,4,13,14	GND	POWER	GND

6PIN-2.0MM pin header

Pin Assignment	Pin Name	Type	Description
1	+5V	POWER	5.0V DC
2	RXD	Input	UART Receive ,Connect to TXD of USER MCU
3	TXD	Output	UART Transmit, Connect to RXD of USER MCU
4	DM		USB-DM ( it can be NC)
5	DP		USB-DP( it can be NC)
6	GND	POWER	GND



● Drawing

