Winstar Display Co., LTD
華凌光電股份有限公司
WEB: https://www.winstar.com.tw E-mail: sales@winstar.com.tw

SPECIFICATION

CUSTOMER : _____

MODULE NO.: WWSTNUSBDEMO-00#

APPROVED BY: (FOR CUSTOMER USE ONLY)	**PCB VERSION:** **DATA:**

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
first FC components			

VERSION	DATE	REVISED PAGE NO.	SUMMARY
0	2020/07/21		First issue

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RECORDS OF REVISION			DOC. FIRST ISSUE
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1.Winstar STN Graphic 128x128 dots



Winstar STN Graphic↑

Characteristics:

1. LCD Type/Color : FSTN, WHITE

2. Viewing Direction : 6H

3. Drive Method : 1/136Duty, 1/12 BIAS

4.Supply Voltage for LCD : 14.0V(TYP)

5.Polsrizer Mode : Transflective, Positive

6.Operation Wide Temperature : -20℃ ~ 70 ℃

7.Storage Wide Temperature : -30℃ ~ 80 ℃

8.B/L Type : LED, WHITE 3DICE 3.5V/48mA.

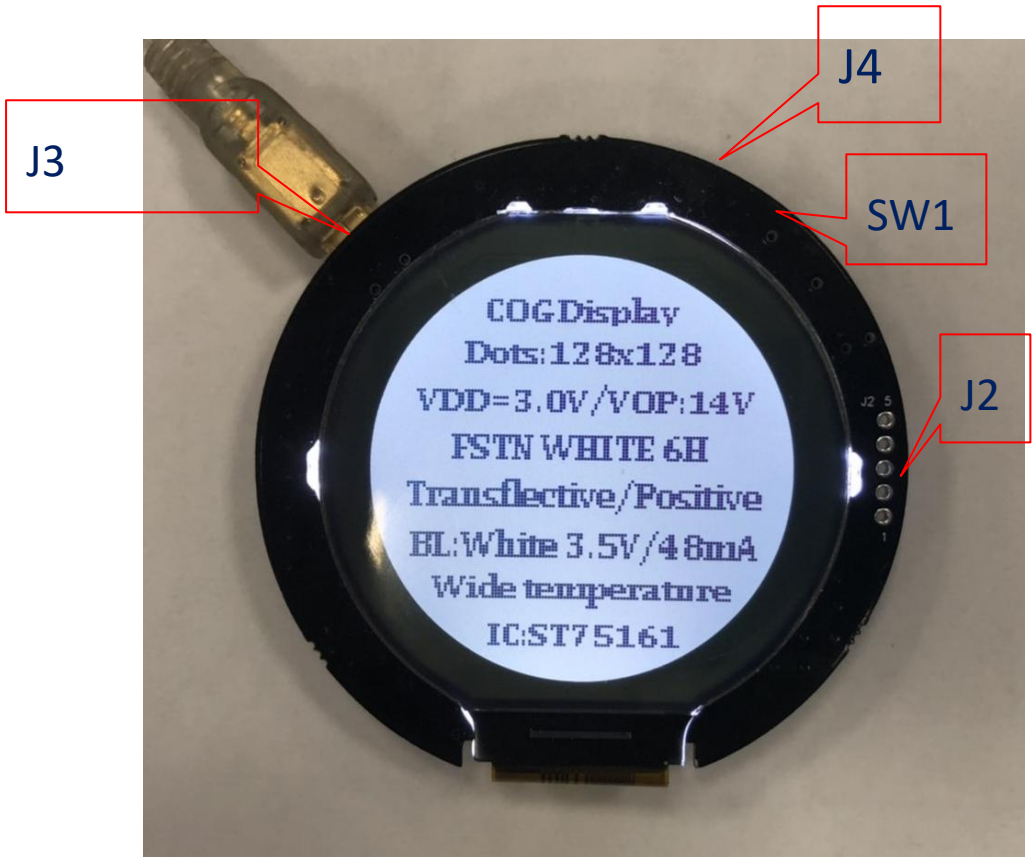
9.Controllor IC : ST75161.

2.STN USB DEMO BOARD Feature

1.STN USB DEMO BOARD support WO128128A module by ultra high speed chip.

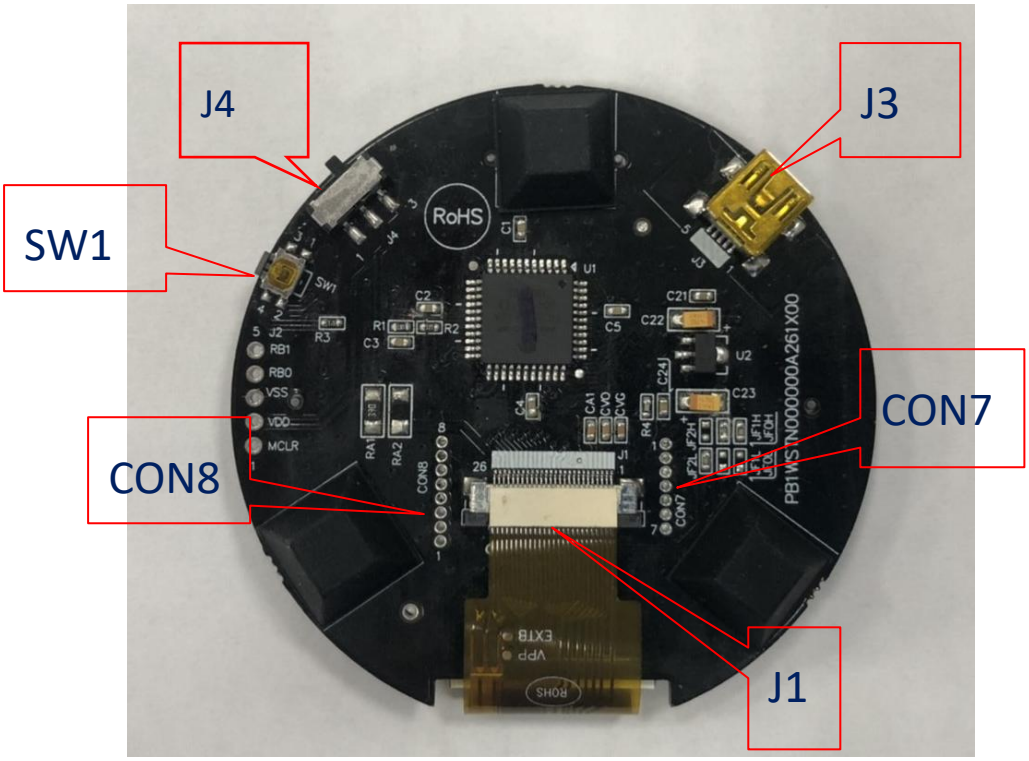
STN USB DEMO BOARD can be driven by 5V/500mA through computer USB Port or change AC100~240V to DC 5V through adaptor. In addition, STN USB COG DEMO BOARD drives WO128128A Module by power supply from VDD voltage circuit.

USB COG DEMO BOAR is slim and light; you can carry it anywhere easily and show the WO128128A anytime to customer.



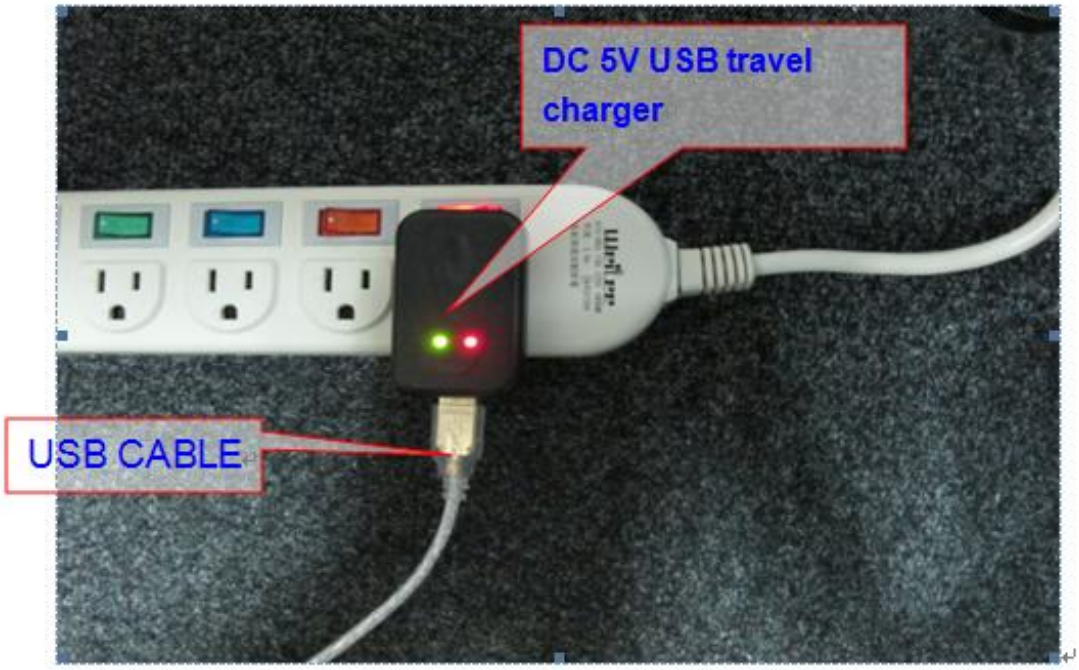
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2. Back view of STN USB DEMO BOARD



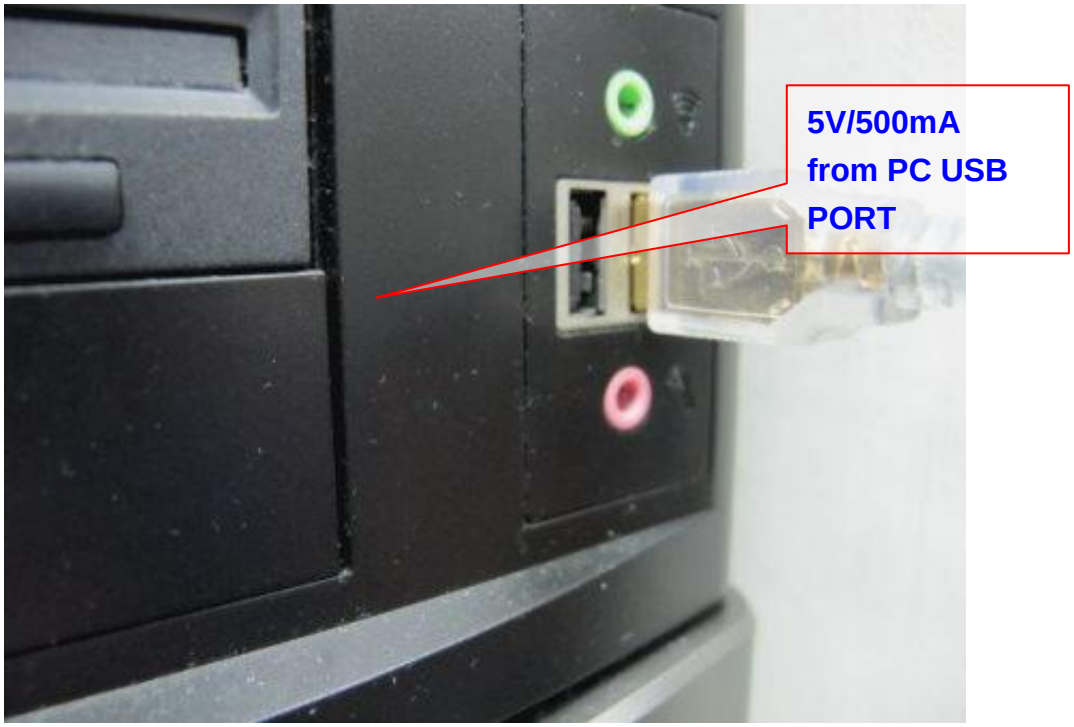
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3. Schematic diagram of using travel charger



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4. Schematic diagram of using PC USB PORT



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5. Schematic diagram of using NoteBook USB PORT



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3.Interface Description

1. Component explain

Parts Location	Function explanation	Remarks
J1	STN LCD Connector	
J2	Reserved	
J3	+5V power supply from adaptor or Notebook/PC	
J4	Loop/Step Mode Function switch	
SW1	Step Control Function(Switch to the next image)	
CON7	STN LCD Control PIN(VDD,GND,A0,CSB,ERD,EWR,RSTB)	
CON8	STN LCD DATA PIN(D0-D7)	

※ Explanation of connecter and Switch

1. Plug adaptor to the AC100~240V socket and power will transfer to +5V, see photo 3.
2. It gains +5V power supply by inserting to J3, as photo 4 and 5.
3. J1 locates in the conjunction of WO128128A Module, as photo 2.
4. J2 is for reservation, as photo 2.
5. J4 is a switch for LOOP or STEP Mode (Photo 2). Push it up for LOOP Mode and push it down for STEP Mode. When it's on LOOP Mode, OLED ICON DISPLAY shows all images from the first to the last repeatedly.
6. SW1 is functional when STEP Mode is on.

2. Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply voltage for DC	VDD-VSS	Power Supply	4.7	5	5.3	V

3. H/W Function Characteristics

Item	Condition	Result	Unit
USB	PC USB2.0 Port	OK	
USB	+5V Power Supply for Adaptor	OK	
Switch	J4	OK	
Switch	SW1	OK	

4. Module Dimensions Characteristics

No	Item	Remark
1.	Demo Board PCB + COG LCD(L*W*H) (mm)	74.0*66.84*12.28 (mm)