



Surenno SLV1010B-8001280 Series LVDS Interface TFT LCD Module User Manual

[Home](#) » [Surenno](#) » Surenno SLV1010B-8001280 Series LVDS Interface TFT LCD Module User Manual 

Contents

- 1 Surenno SLV1010B-8001280 Series LVDS Interface TFT LCD Module User Manual
- 2 General Description
- 3 Introduction
- 4 Features
- 5 General information
- 6 Absolute Maximum Ratings
 - 6.1 Environment Absolute Rating
- 7 Optical Characteristics
- 8 Measuring Condition
- 9 Measuring Equipment
- 10 Block Diagram
- 11 Interface pin define:
- 12 Electrical Characteristics
- 13 TFT LCD Module
- 14 POWER ON/OFF sequence
- 15 General Precaution
- 16 Use Restriction
- 17 Assembly Precaytton
- 18 Disassembling or Modification
- 19 Breakage of LCD Panel
- 20 10.5 Absolute Maximum Ratings and Power Protection Circuit
- 21 10.7 Static Electricity
- 22 10.8 Disposal
- 23 10.9 OTHERS
- 24 Documents / Resources
 - 24.1 References

Surenno SLV1010B-8001280 Series LVDS Interface TFT LCD Module User Manual



General Description

Introduction

SLV1010B-8001280color active matrix thin film **transistor (TFT) liquid crystal display** that uses amorphous silicon TFT as a switching device. This model is composed of a TFT LCD panel and a driving circuit.This TFT LCD has a 10.1 (16:9) inch diagonally measured active display area with (800 horizontal by 1280 vertical pixel) resolution.

Features

10.1(16:9 diagonal) inch configuration Image Reversion: UP/DOWN and LEFT/RIGHT ROHS design

General information

Item	Specification	Unit
Outline Dimension	143(H) x 228.6(V) x2.6(D)	mm
LCD Display area	135.36(H) x 216.58 (V)	mm
Number of Pixel	800(H) x3(RGB)x 1280 (V)	pixels
Pixel pitch	0.1692(H) x 0.1692 (V)	mm
Pixel arrangement	RGB Vertical stripe	
Display mode	IPS(Normal Black)	
Color Filter Array	RGB vertical stripes	
Luminous	TYP=350nits	nits
Weight	TBD	g
Interface	LVDS interface	

Absolute Maximum Ratings

Environment Absolute Rating

Item	Symbol	Min.	Max.	Unit	Note
Operating Temperature	Topa	-10	50	°C	
Storage Temperature	Tstg	-20	60	°C	

- Back-light Unit:

PARAMETER	Sym.	Min.	Typ.	Max.	Unit	Test Condition	Note
LED Voltage	VLED	2.5	—	14	V	—	—
PWM	PEM	100		200K	Hz	Duty=5%~100%	
Enable	LED_EN	2.5		5.5	V		
Life Time		—	20000	—	Hr.		—
Color	White						

Note (1) Permanent damage may occur to the LCD module if beyond this specification. Functional operation should be restricted to the conditions described under normal operating conditions. (2)Ta=25±2°C

Optical Characteristics

Item	Symbol	Condition				Unit	Remark
			Min	Typ	Max		
Response Time	Tr	$\theta = 0^\circ$	—	10	20	ms	Note 3
	Tf		—	15	30		
	Tr+Tf		—	25	—		
Contrast Ratio	CR	$\theta = 0^\circ$	800	100	—		Note 2,4

Viewing Angle	Top(12 o'clock)	$CR \geq 10$	80	85	—	deg	Note 1
	Bottom(6 o'clock)		80	85	—		
	Left(9 o'clock)		80	85	—		
	Right(3 o'clock)		80	85	—		
Color Chromaticity	Wx	$\theta = 0^\circ$	0.293	0.313	0.343		Note 5
	Wy		0.299	0.329	0.359		
	Rx		—	—	—		
	Ry		—	—	—		
	Gx		—	—	—		
	Gy		—	—	—		
	Bx		—	—	—		
	By		—	—	—		
Cross Talk	Ct		—	—	1.2	%	Note 6
Transmittance	Trans		—	4.58	—	%	
Luminance	L	$\theta = 0^\circ$	300	350	—	cd/	
Luminance uniformity	YU		70	75	—	%	

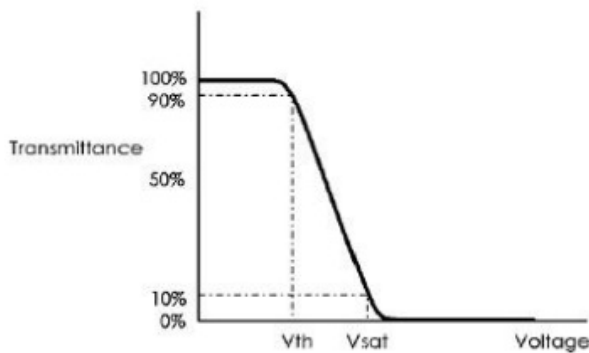
Measuring Condition

- Measuring surrounding : dark room
- Ambient temperature : $25 \pm 2^\circ\text{C}$
- warm-up time.

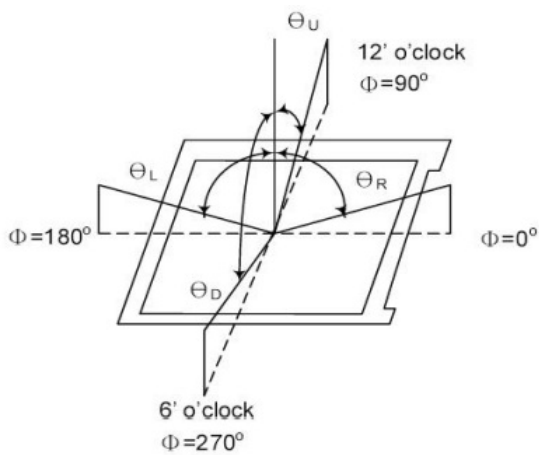
Measuring Equipment

TOPCON BM-7

Note (1) Definition of V_{sat} and V_{th} (at 20°C)

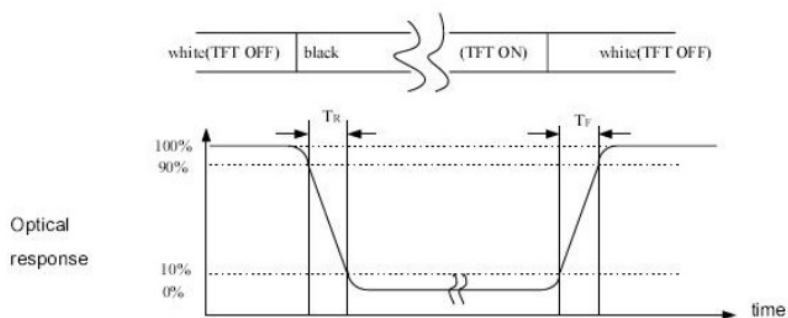


Note (2) Definition of Viewing Angle

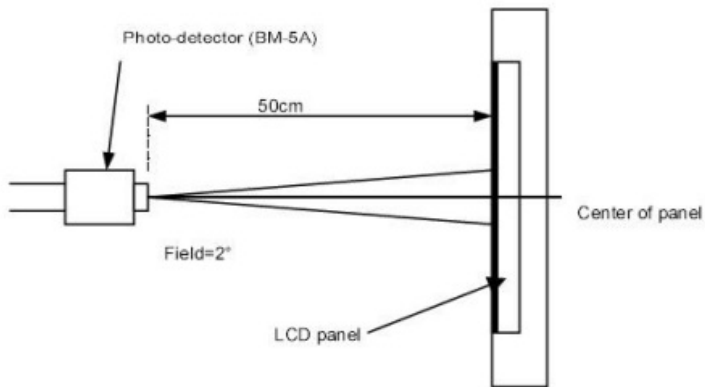


Note (3) Definition of Contrast Ratio(CR) : measured at the center point of panel
 $\text{CR} = \frac{\text{Luminance with all pixels white}}{\text{Luminance with all pixels black}}$

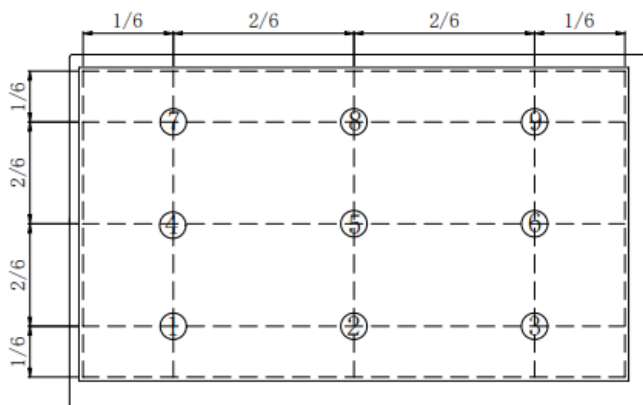
Note (4) Definition of Response Time : Sum of T_R and T_F



Definition of optical measurement setup



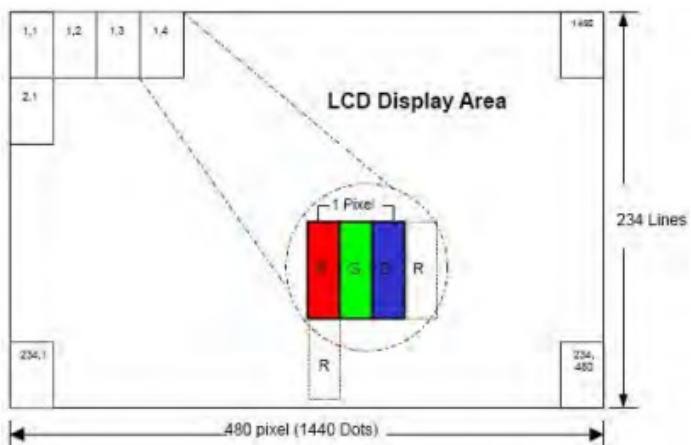
Definition of brightness uniformity



Rubbing Direction (The different Rubbing Direction will cause the different optima view direction.)

Block Diagram

TFT-LCD Module



Interface pin define:

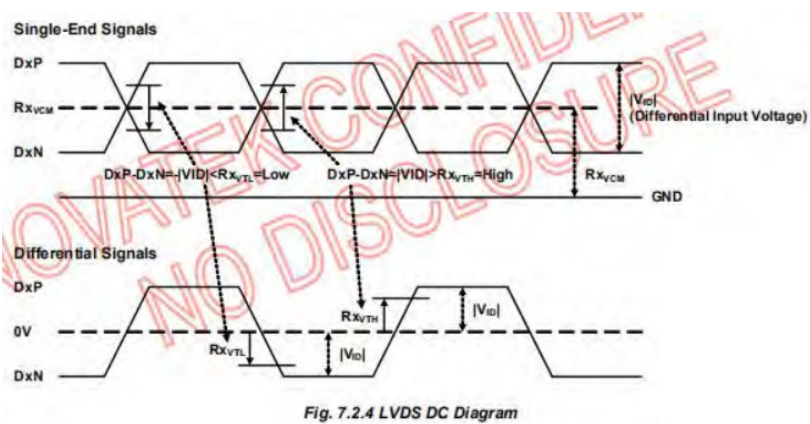
Connector DF14-20P-1.25H

Electrical Characteristics

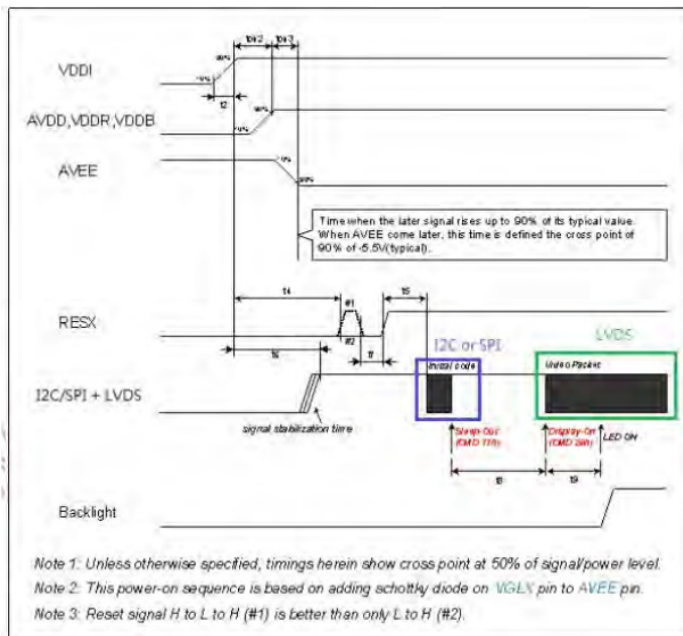
TFT LCD Module

Item	Symbol	Min.	Typ.	Max.	Unit	Note
Power Supply	VDD3V3	3.0		3.3	V	
VLED	VLED	5		14	V	
Input signal voltage	VIH	0.7DVDD	—	DVDD	V	
	VIL	0	—	0.3DVDD	V	
Power Current	IVDD3V3	—	135	—	mA	

- LVDS input format Only Support 8bit LVDS
- LVDS input timing



POWER ON/OFF sequence



Reliability test items

NO	Item	Conditions	Remark
1	High Temperature Storage	Ta=+60°C,48hrs	
2	Low Temperature Storage	Ta=-20°C,48hrs	
3	High Temperature Operation	Ta=+50°C,48hrs	
4	Low Temperature Operation	Ta=-10°C,48hrs	
5	High Temperature and High Humidity (operation)	Ta=+40°C,80%RH,48hrs	
6	Thermal Cycling Test (non operation)	-20°C(0.5hr)→+60°C(0.5hr),100cycles	
7	Vibration	1. Random:1.04G,10-500HZ,X,Y,Zdirection 30min/each direction 2. Sweep sine:1.5G, 5~500Hz, X/Y/Z,30min/each direction	
8	Shock	100G,6ms, ±X, ±Y, ±Z 3 time for each direction	JIS C7021, A-10 (Condition A)
9	Vibration (with carton)	Random:1.04Grms, 10~500Hz, X/Y/Z 45min/each direction Fixed:5Hz, 1.5Grms, X/Y/Z 45min/each direction	
10	Drop (with carton)	Height: 60cm 1 corner, 3 edges, 6 surfaces	JIS Z0202
11	Electrostatic Discharge	±200V,200PF,0Ω1 time/each terminal	

Note: All tests above are practiced at module type.
There is no display function NG issue occurred, All the cosmetic specification is judged before the reliability stress.

General Precaution

Use Restriction

This product is not authorized for use in life supporting systems, aircraft navigation control systems, military systems and any other application where performance failure could be life-threatening or otherwise catastrophic.

Assembly Precaytton

- Please use the mounting hole on the module side in installing and do not bending or wrenching LCD in assembling. And please do not drop, bend or twist LCD module in
- Please design display housing in accordance with the following guide
 - Housing case must be destined carefully so as not to put stresses on LCD all sides and not to wrench
The stresses may cause non-uniformity even if
there is no non-uniformity statically.
- Keep sufficient clearance between LCD module back surface and housing when the LCD module is The
clearance in the design is recommended
taking into account the tolerance of LCD module thickness and mounting structure height on the housing.
- Please do not push or scratch LCD panel surface with any-thing And do not soil LCD panel surface by touching
with bare hands. (Polarizer film, surface of LCD

panel is easy to be flawed.)

- Please do not press any parts on the rear side such as source IC, gate IC, and FPC during handling LCD If
pressing rear part is unavoidable, handle the LCD module with care not to damage them.
- Please wipe out LCD panel surface with absorbent cotton or soft cloth in case of it being
- Please wipe out drops of adhesives like saliva and water on LCD panel surface They might damage to cause
panel surface variation and color change.
- Please do not take a LCD module to pieces and reconstruct it. Resolving and reconstructing modules may
cause them not to work

Disassembling or Modification

Do not disassemble or modify the module. It may damage sensitive parts inside LCD module, and may cause scratches or dust on the display. HannStar does not warrant the module, if customers disassemble or modify the module.

Breakage of LCD Panel

- If LCD panel is broken and liquid crystal spills out, do not ingest or inhale liquid crystal, and do not contact liquid
crystal with
- If liquid crystal contacts mouth or eyes, rinse out with water
- If liquid crystal contacts skin or cloths, wash it off immediately with alcohol and rinse thoroughly with water.
- Handle carefully with chips of glass that may cause injury, when the glass is

10.5 Absolute Maximum Ratings and Power Protection Circuit

- Do not exceed the absolute maximum rating values, such as the supply voltage variation, input voltage
variation, variation in parts' parameters, environmental temperature, etc., otherwise LCD module may be

- Please do not leave LCD module in the environment of high humidity and high temperature for a long
- It's recommended employing protection circuit for power
- Operation
 - Do not touch, push or rub the polarizer with anything harder than HB pencil lead. Use fingerstalls of soft gloves in order to keep clean display quality, when persons handle

the LCD module for incoming inspection or assembly.

- When the surface is dusty, please wipe gently with absorbent cotton or other soft
- Wipe off saliva or water drops as soon as If saliva or water drops contact with polarizer for a long time, they may causes deformation or color fading.
- When cleaning the adhesives, please use absorbent cotton wetted with a little petroleum benzine or other adequate

10.7 Static Electricity

- Protection film must remove very slowly from the surface of LCD module to prevent from electrostatic occurrence.
- Because LCD module uses CMOS-IC on TFT-LCD panel, it is very weak to electrostatic discharge. Please be careful with electrostatic
- Persons who handle the module should be grounded through adequate

10.8 Disposal

When disposing LCD module, obey the local environmental regulations.

10.9 OTHERS

- A strong incident light into LCD panel might cause display characteristics' changing inferior because of polarizer film, color filter, and other materials becoming

Please do not expose LCD module direct sunlight land strong UV rays.

- Please pay attention to a panel side of LCD module not to contact with other materials in preserving it
- For the packaging box, please pay attention to the followings:
 - Packaging box and inner case for LCD are designed to protect the LCDs from the damage or scratching during transportation. Please do not open except

picking LCDs up from the box.


- Please do not pile them up more than 6 (They are not designed so.) And please do not turn over.
- Please handle packaging box with care not to give them sudden shock and And also please do not throw them up.

- Packing box and inner case for LCDs are made of cardboard. So please pay attention not to get them wet.
(Such like keeping them in high humidity or wet

place can occur getting them wet.)

Read More About This Manual & Download PDF:

Documents / Resources

	<p>Surenoo SLV1010B-8001280 Series LVDS Interface TFT LCD Module [pdf] User Manual SLV1010BA3-8001280, SLV1010B-8001280 Series, SLV1010B-8001280 Series LVDS Interface TFT LCD Module, SLV1010B-8001280 Series TFT LCD Module, LVDS Interface TFT LCD Module, LVDS Interface LCD Module, TFT LCD Module, LCD Module, Module</p>
---	---

References

- [Surenoo Tech: Professional LCD Module Supplier Since 2005](#)