

VGG127201-0TSLWE



Application

This specification is applied to the 8 inch HD supported TFT-LCD module, and can display true 16.7M colors (8 bit/ color). This module is composed of a 8" TFT-LCD panel, a driver circuit, and backlight unit.

Features

- HD (1280×720 pixels) resolution.
- eDP Interface.
- LED driver circuit is built in this module to provide PWM Dimmer function.

General Specifications

Item	Specifications	Unit
Screen Size	8 (Diagonal)	inch
Display Format	1280 RGB(H)×720 (V)	dot
Active Area	176.64(H)×99.36(V)	mm
Pixel Pitch	0.138(H)×0.138(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Type / Transmissive Mode / Normally black	-
Surface Treatment	Anti-Glare	-
Viewing Direction	Full view angle	-
Outline Dimension	192.8(W)×116.9(H)×9.5(D)	mm

Absolute Maximum Ratings

Absolute Ratings of Environment

Item	Symbol	Value		Unit
		Min.	Max.	
Storage Temperature	T _{ST}	-30	+80	°C
Operating Temperature	T _{OP}	-20	+70	°C

Electrical Absolute Ratings

TFT-LCD Module

(Ta=25±2°C, V_{SS}=0V)

Item	Symbol	Value		Unit
		Min.	Max.	
Digital Power Supply Voltage	VCC	-0.5	5.0	V

LED Driver Absolute Maximum Ratings

(Ta=25±2°C)

Item	Symbol	Value		Unit
		Min.	Max.	
LED Driver Supply Voltage	VLED	-0.3	17	V
LED Driver PWM	EN	-0.3	6	V

Electrical Characteristics

TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value			Unit
		Min.	Typ.	Max.	
Power Supply Voltage	VCC	3.1	3.3	3.5	V
Power Supply Current	ICC	-	530	742	mA
Power Consumption	P _L	-	1749	2449	mW
VSYNC Frequency	F _V	-	60	-	Hz

LED Driver Unit

(Ta=25±2°C)

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Voltage of LED Driver Unit	VLED	11.5	12.0	12.5	V	-
Current of LED Driver Unit	ILED	-	470	658	mA	VLED=12V B/L=260mA
Enable voltage	EN	3.0	3.3	5.5	V	-
PWM signal Low voltage	VPWML	0	-	0.4	V	-
PWM signal High voltage	VPWMH	1.5	-	5	V	-
PWM frequency	fPWM	100	-	1000	Hz	-
LED Life Time(25°C)	-	20000	-	-	hr	(1)

Note (1) : LED life time is defined as under 25±2°C , when the average brightness decrease to 50% of original brightness

Input / Output Terminals Pin Assignment

TFT-LCD Module

Connector: J2, IPEX 20455-030E-99 or equivalent

No.	Symbol	I/O	Description
1	N.C.	-	Not Connection
2	GND	I	Ground
3	DP1-	I	Main Link Lane 1- Input
4	DP1+	I	Main Link Lane 1+ Input
5	GND	I	Ground
6	DP0-	I	Main Link Lane 0- Input
7	DP0+	I	Main Link Lane 0+ Input
8	GND	I	Ground
9	AUX+	I/O	AUX Channel Differential Input/Output
10	AUX-	I/O	AUX Channel Differential Input/Output
11	GND	I	Ground
12	VCC	I	Power supply
13	VCC	I	Power supply
14	N.C.	-	Not Connection
15	GND	I	Ground
16	GND	I	Ground
17	HPD	O	Hot Plug Detect
18	GND	I	Ground
19	GND	I	Ground
20	GND	I	Ground
21	GND	I	Ground
22	EN	I	Backlight enable pin
23	PWM	I	Backlight adjust
24	N.C.	-	Not Connection
25	N.C.	-	Not Connection
26	VLED	I	LED driver power supply
27	VLED	I	LED driver power supply
28	VLED	I	LED driver power supply
29	VLED	I	LED driver power supply
30	N.C.	-	Not Connection

Outline Drawing

