

EVERVISION

Wide View TFT

Wide Temp. TFT

DATASHEET

VGG804833-0TSLWB



Application

This specification is applied to the 7 inch WVGA supported TFT-LCD module, and candisplay true 16.7M colors with dithering (8 bit/ color). The module is designed for OA, Car TV application and other electronic products which require flat panel display of digital signal interface. This module is composed of a 7" TFT-LCD panel, a driver circuit and backlight unit.

Features

- WVGA (800×480 pixels) resolution.
- 8 bit LVDS Interface.
- LED driver circuit is built in this module to provide PWM Dimmer function.

General Specifications

Item	Specifications	Unit
Screen Size	7 (Diagonal)	inch
Display Format	800RGB(H)×480(V)	dot
Active Area	152.4(H)×91.44(V)	mm
Pixel Pitch	0.1905(H)×0.1905(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Transmissive Mode Normally Black	-
Surface Treatment	Hard Coating	-
Viewing Direction	Full view angle	-
Outline Dimension	166.6(W)×109.4(H)×9.81(D)	mm
Weight	(188)	g
RoHS Compliance	RoHS Compliance	-

Absolute Maximum Ratings

Absolute Ratings of Environment

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-40	+90	°C	(1)(2)(3)(4)
Operating Ambient Temperature	T _{OP}	-30	+85	°C	(1)(2)(3)(4)

Note (1) (a) 90 %RH Max. (T_a ≤ 40 °C).

(b) Wet-bulb temperature should be 39 °C Max. (T_a > 40 °C).

(c) No condensation.

Note (2) T_a = Ambient Temperature, T_p = Panel Surface Temperature.

Note (3) This rating applies to all parts of the module and should not be exceeded.

Note (4) If the product were used out of the operation and storage range, it will have quality issue

Should a module be used with any of the absolute maximum ratings exceeded, the characteristics of the module may not be recovered, or in an extreme case, the module may be permanently destroyed.

Electrical Absolute Ratings

TFT-LCD Module

(T_a=25±2°C)

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Digital Power Supply Voltage	V _{DD}	-0.5	5.0	V	-

Note The absolute maximum rating values of this product are not allowed to be exceeded at any times.

LED Driver Absolute Maximum Ratings

(T_a=25±2°C)

Item	Symbol	Value		Unit	Note
		Min.	Max.		
LED Driver Supply Voltage	V _{LED}	-0.3	17	V	(1)
LED Driver PWM	PWM	-0.3	6	V	(1)

Note (1) Permanent damage to the device may occur if maximum values are exceeded or reverse voltage is loaded.

Electrical Characteristics

TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	VCC	3.0	3.3	3.6	V	-
Power Supply Current	ICC	-	205	287	mA	(1)
Differential Input High Threshold Voltage	VTH	-	-	100	mV	-
Differential Input Low Threshold Voltage	VTL	-100	-	-	mV	-
Power Consumption	PL	-	676.5	947.1	mW	(1)
VSYNC Frequency	FV	-	60	-	Hz	-
DCLK Frequency	DCLK	-	33.26	-	MHz	-

Note (1) The specified power consumption is under the conditions at $V_{CC}=3.3V$,
 $F_V=60Hz$, whereas a power dissipation check pattern below is displayed.

White Pattern / 255 Gray



Active Area

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	-	354	495.6	mA	VLED=12V B/L=360mA
PWM signal Low voltage	VPWML	0	-	0.4	V	-
PWM signal Hig voltage	VPWMH	1.5	-	5	V	-
PWM frequency	fPWM	100	-	1000	Hz	-
LED Life Time(25°C)	-	65000	-	-	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: HIROSE DF19G-30P-1H or Equivalent

Pin No.	Symbol	I/O	Description
1	VCC	I	+3.3V power supply
2	VCC	I	+3.3V power supply
3	GND	I	Ground
4	GND	I	Ground
5	RIN3+	I	LVDS Signal (+) Channel 3
6	RIN3-	I	LVDS Signal (-) Channel 3
7	GND	I	Ground
8	RCLK+	I	LVDS Clock Signal (+)
9	RCLK-	I	LVDS Clock Signal (-)
10	GND	I	Ground
11	RIN2+	I	LVDS Signal (+) Channel 2
12	RIN2-	I	LVDS Signal (-) Channel 2
13	GND	I	Ground
14	RIN1+	I	LVDS Signal (+) Channel 1
15	RIN1-	I	LVDS Signal (-) Channel 1
16	GND	I	Ground
17	RIN0+	I	LVDS Signal (+) Channel 0
18	RIN0-	I	LVDS Signal (-) Channel 0
19	GND	I	Ground
20	GND	I	Ground
21	NC	I	Not Connection
22	NC	I	Not Connection
23	NC	I	Not Connection

24	NC	I	Not Connection
25	BLEN	I	Note 1
26	NC	I	Not Connection
27	VLED	I	LED driver power supply
28	VLED	I	LED driver power supply
29	GND	I	Ground
30	GND	I	Ground

Note 1: To use PWM dimming, apply a 100Hz to 1kHz square wave signal with amplitude greater than 1.5V to this pin.

EVERVISION ELECTRONICS CO., LTD.

Outline Drawing

