

# EVERVISION

Wide View TFT

## DATASHEET

### VGG106009-0TSLWA



## Application

This specification is applied to the 7 inch WSVGA supported TFT-LCD module, and can display true 16.7M colors (RGB 6-bits + HiFRC data). 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

- WSVGA (1024×600 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	1024RGB(H)×600(V)	dot
Active Area	154.214(H)×85.92(V)	mm
Pixel Size	0.1506(H)×0.1432(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Type / Transmissive Mode / Normally Black	-
Surface Treatment	Anti-Glare and Hard Coating(3H)	-
Viewing Direction	Full view angle	-
Outline Dimension	165.0(W)×104.0(H)×9.31(D)	mm

## Absolute Maximum Ratings

### Absolute Ratings of Environment

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

### Electrical Absolute Ratings

#### TFT-LCD Module

( $T_a=25\pm 2^\circ\text{C}$ ,  $GND=V_{SS}=0V$ )

Item	Symbol	Value		Unit
		Min.	Max.	
Digital Power Supply Voltage	$V_{CC}$	-0.3	5.0	V

#### LED Driver Absolute Maximum Ratings

( $T_a=25\pm 2^\circ\text{C}$ )

Item	Symbol	Value		Unit
		Min.	Max.	
LED Driver Supply Voltage	$V_{LED}$	-0.3	17	V
LED Driver PWM	PWM	-0.3	6	V

## Electrical Characteristics

### TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value			Unit
		Min.	Typ.	Max.	
Digital Power Supply Voltage	V <sub>DD</sub>	3.0	3.3	3.6	V
Digital Power Supply Current	IDD	-	151	211	mA
Input logic high voltage	V <sub>IH</sub>	0.7 VDD	-	VDD	V
Input logic low voltage	V <sub>IL</sub>	0	-	0.3 VDD	V
Differential Input High Threshold Voltage	RX <sub>VTH</sub>	-	-	0.1	V
Differential Input Low Threshold Voltage	RX <sub>VTL</sub>	-0.1	-	-	V
Input voltage range (singled-end)	RxVIN	0	-	2.4	V
Differential input common mode voltage	RxVCM	VID /2	-	2.4 -  VID /2	V
Differential voltage	VID	0.2	-	0.6	V
Differential input leakage current	RVxliz	-10	-	+10	uA
DCLK Frequency	DCLK	-	51.2	-	MHz

## 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	-	300	420	mA	VLED=12V 、 B/L=210mA
PWM signal Low voltage	VPWML	0	-	0.4	V	-
PWM signal High voltage	VPWMH	1.5	-	5	V	-
PWM frequency	fPWM	100	-	1000	Hz	-
PWM Pulse width	tPWMH	10	-	-	us	-
LED Life Time(25°C)	-	50000	-	-	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

Pin No.	Symbol	I/O	Description
1	V <sub>CC</sub>	I	+3.3V power supply
2	V <sub>CC</sub>	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

