

Application

This specification is applied to the 10.25 inch supported TFT-LCD module, and can display true 16.7M colors(8 bit/ color). This module is composed of a 10.25" TFT-LCD panel, a driver circuit and backlight unit.

Features

- 1280×480 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	10.25 (8:3 Diagonal)	inch
Display Format	1280RGB(H)×480(V)	dot
Active Area	243.84(H)×91.44(V)	mm
Pixel Pitch	0.1905(H)×0.1905(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Type / Transmissive Mode / Normally Black	-
Surface Treatment	Antiglare, Hard-Coating (3H)	-
Viewing Direction	Full view angle	-
Outline Dimension	265.2(W)x109.85(H)x11.26(D)	mm
Weight	(251.8)	g
RoHS Compliance	RoHS Compliance	-

▲ Absolute Maximum Ratings

Absolute Ratings of Environment

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-30	+80	°C	(1)(2)
Operating Ambient Temperature	T _{OP}	-20	+70	°C	(1)(2)

Note1: Background color changes slightly depending on ambient temperature.

This phenomenon is reversible.

Note2: Please refer to item of RELIABILITY.

▲ Electrical Absolute Ratings

TFT-LCD Module

(Ta=25±2°C, GND=V_{SS}=0V)

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Digital Power Supply Voltage	V _{CC}	-0.3	3.6	V	-

LED Driver Absolute Maximum Ratings

(Ta=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	V _{CC}	3.0	3.3	3.6	V	-
Power Supply Current	I _{CC}	-	135	189	mA	(1)
Differential Input High Threshold Voltage	V _{TH}	-	-	100	mV	-
Differential Input Low Threshold Voltage	V _{TL}	-100	-	-	mV	-
Power Consumption	P _L	-	445.5	623.7	mW	(1)
VSYNC Frequency	F _V	-	60	-	Hz	-
DCLK Frequency	DCLK	-	45	-	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

Backlight 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	-	430	602	mA	VLED=12V 、 B/L=180mA
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)	-	30000	-	-	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	V _{CC}	I	+3.3V power supply
2	V _{CC}	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.

Outline Drawing

