

Application

This specification is applied to the 10.4 inch XGA supported TFT-LCD module, and can display true 16.7M colors. 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 10.4" TFT-LCD panel, a driver circuit and backlight unit.

Features

- XGA (1024×768 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	10.4 (Diagonal)	inch
Display Format	1024RGB(H)×768(V)	dot
Active Area	211.2(H)×158.4(V)	mm
Pixel Pitch	0.20625(H)×0.20605(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Type / Transmissive Mode / Normally Black	-
Surface Treatment	Anti-Glare (3H)	-
Viewing Direction	Full view angle	-
Outline Dimension	236(W)×174.3(H)×13.02(D)	mm
Weight	(340)	g
RoHS Compliance	RoHS Compliance	-

▲ Absolute Maximum Ratings

Absolute Ratings of Environment

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

▲ Electrical Absolute Ratings

TFT-LCD Module

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Power Supply Voltage	VCC	-0.3	3.9	V	-
	VLED_12V	11	13	V	-

Electrical Characteristics

TFT-LCD Module

(Ta=25±2°C)

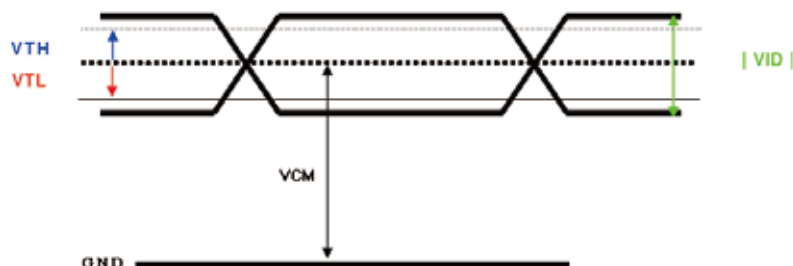
ITEM	SYMBOL	MIN	TYP	MAX	UNIT	NOTE
Power Supply Voltage	VCC	3.0	3.3	3.6	V	
	VLED_12V	-	12	-	V	
Differential Input High Threshold	RxVTH	-	-	+100	mV	RxVCM=+1.2V
Differential Input Low Threshold	RxVTL	-100			mV	RxVCM=+1.2V
Magnitude differential Input Voltage	VID	200	-	600	mV	(1)
Common Mode Voltage	RxVCM	0.7	-	1.6	V	
PWM frequency	-	100	-	10K	Hz	
PWM Duty ratio	-	25	-	100	%	(3)
LED_EN Threshold Voltage	VIH	2	-		V	
	VIL	-	-	0.5	V	
Supply Current	ICC	-	380	420	mA	
	ILED	-	700	750	mA	
LED life time	-	-	50000	-	Hr	(2)

Note (1): 60Hz, Ta=25°C, Display pattern: White pattern



Note (2): The "LED life time" is defined as the module brightness decrease to 50% original brightness that the ambient temperature is 25°C 60% RH.

Note (3): Not recommended to use less than 25%, in order to avoid instability backlight





Input / Output Terminals Pin Assignment

TFT-LCD Module

CN1 Connector Pin Assignment

(Connector Part No: MSAKT2407P30_HA or equivalent)

Pin No.	Symbol	Description	Note
1	VCC	Power Supply Logic voltage +3.3V	-
2	VCC	Power Supply Logic voltage +3.3V	-
3	GND	Ground	-
4	GND	Ground	-
5	RIN0-	Negative LVDS differential data input	-
6	RIN0+	Positive LVDS differential data input	-
7	GND	Ground	-
8	RIN1-	Negative LVDS differential data input	-
9	RIN1+	Positive LVDS differential data input	-
10	GND	Ground	-
11	RIN2-	Negative LVDS differential data input	-
12	RIN2+	Positive LVDS differential data input	-
13	GND	Ground	-
14	RCLK-	Negative LVDS differential data input	-
15	RCLK+	Positive LVDS differential data input	-
16	GND	Ground	-
17	RIN3-	Negative LVDS differential data input	-
18	RIN3+	Positive LVDS differential data input	-
19	GND	Ground	-
20	REV	Select horizontal and vertical scanning direction (Normal: Low, Reverse: High)	-
21	VLED_12V	Power Supply LED voltage +12V	-
22	VLED_12V	Power Supply LED voltage +12V	-
23	VLED_12V	Power Supply LED voltage +12V	-
24	VLED_12V	Power Supply LED voltage +12V	-
25	LED_EN	Back-light On/Off control	-
26	PWM	Back-light Dimming control	-
27	GND	Ground	-
28	GND	Ground	-
29	GND	Ground	-
30	GND	Ground	-

Outline Drawing

