

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 and used as the input devices for general electric appliances via both finger and Capacitive stylus pen.

Features

- 1280×480 pixels resolution
- HDMI Interface
- LED driver circuit is built in this module to provide PWM Dimmer function
- Projected Capacitive Touch
 - ☐ USB Interface
 - ☐ Multi Touch (Ten points)
 - ☐ 2048 x 2048 resolution

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	Clear(7H)	-
Viewing Direction	Full view angle	-
Outline Dimension	265.2(W)×109.85(H)×20.15(D)	mm
Weight	(389.6)	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.		
Power Supply Voltage	VCC	-0.3	30	V	-
BLEN	PWM	-0.3	6	V	

Electrical Characteristics

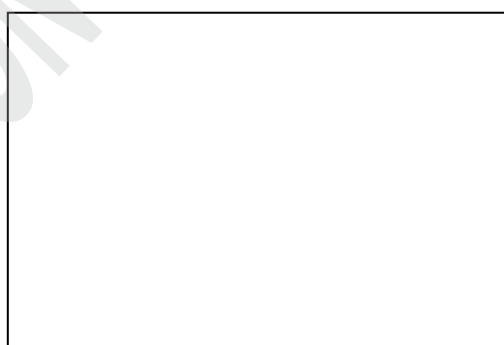
TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	VCC	23.5	24.0	24.5	V	-
Power Supply Current	ICC	-	310	434	mA	(1)
Power Supply Voltage	VCC	11.5	12.0	12.5	V	-
Power Supply Current	ICC	-	500	700	mA	(1)
VSYNC Frequency	F _V	-	60	-	Hz	-
DCLK Frequency	DCLK	-	45	-	MHz	-
PWM signal Low voltage	V _{PWML}	0	-	0.4	V	-
PWM signal High voltage	V _{PWMH}	1.5	-	5.0	V	-
PWM frequency	f _{PWM}	100	-	1000	Hz	-
LED Life Time(25°C)	-	30000	-	-	hr	(2)

Note (1) The specified power consumption is under the conditions at VCC=12 V or 24V, F_V=60Hz, whereas a power dissipation check pattern below is displayed.

White Pattern / 255 Gray



Active Area

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

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	V_{TP}	4.8	5.0	5.2	V	-
Power Supply Current	I_{TP}	-	33.8	47.4	mA	(1)
Output High Threshold Voltage	V_{OH}	2.8	-	-	V	-
Output Low Threshold Voltage	V_{OL}	-	-	0.8	V	-
Differential Input Sensitivity (D+)-(D-)	V_{DI}	0.2	-	-	V	-
Differential Input Common Mode Range	V_{CM}	0.8	-	2.5	V	
Power Consumption	P_L	-	169.0	237.0	mW	@5.0V
Report Rate	R_R	-	60	-	Hz	-

Note (1) This test condition is touched with 10 points.



Input / Output Terminals Pin Assignment

TFT-LCD Module

Connector: HDMI Connector

No.	Symbol	I/O	Description
1	TMDS Data2+	I	Channel-2 positive receiver input – Positive side of channel-2 TMDS low-voltage signal differential input pair.
2	TMDS Data2 Shield	I	Ground
3	TMDS Data2–	I	Channel-2 negative receiver input – Negative side of channel-2 TMDS low-voltage signal differential input pair.
4	TMDS Data1+	I	Channel-1 positive receiver input – Positive side of channel-1 TMDS low-voltage signal differential input pair.
5	TMDS Data1 Shield	I	Ground
6	TMDS Data1–	I	Channel-1 negative receiver input – Negative side of channel-1 TMDS low-voltage signal differential input pair.
7	TMDS Data0+	I	Channel-0 positive receiver input – Positive side of channel-0. TMDS low-voltage signal differential input pair.
8	TMDS Data0 Shield	I	Ground
9	TMDS Data0–	I	Channel-0 negative receiver input – Negative side of channel-0. TMDS low-voltage signal differential input pair.
10	TMDS Clock+	I	Clock positive receiver input – Positive side of reference clock. TMDS low-voltage signal differential input pair
11	TMDS Clock Shield	I	Ground
12	TMDS Clock–	I	Clock negative receiver input – Negative side of reference clock. TMDS low-voltage signal differential input pair
13	N.C.	-	Not Connection
14	N.C.	-	Not Connection

No.	Symbol	I/O	Description
15	HDMI_DDC_SCL	I	Serial Clock
16	HDMI_DDC_SDA	I	Serial Data
17	N.C.	-	Not Connection
18	HDMI 5V Power	I	5V
19	HDMI_HPD	O	Hot Plug Detect

Connector

Connector: CI4412M2HR0 or compatible connector

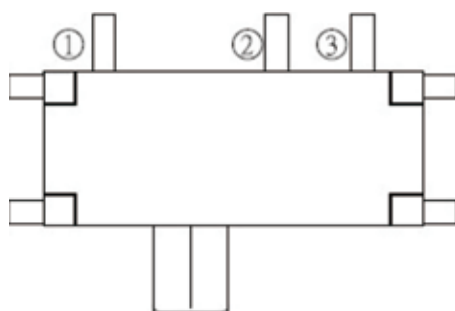
No.	Symbol	Functions
1	VCC	Power supply for LCM
2	VCC	Power supply for LCM
3	BLEN	PWM Dimmer
4	D+	USB data+ for PCT (Note 1)
5	D-	USB data- for PCT (Note 1)
6	V _{TP}	+5V power supply for PCT
7	NC	Not Connection
8	NC	Not Connection
9	NC	Not Connection
10	NC	Not Connection
11	GND	Ground
12	GND	Ground

Note:

1. To avoid USB I/F IPCT damaged, please select only one connection method (USB or Power Connector Pin 4 & 5 & 6) while using the module.

Slider Switch

Pin	Description	Note
1-2	PWM Dimmer	Default
2-3	HDMI Detection	-



Detail: "A"
Scale: 40X