

VGG106008-6UFLWC



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.
- Dot inversion mode with stripe type.
- LED driver circuit is built in this module.
- HDMI Interface.

General Specifications

Item	Specifications	Unit
Screen Size	7 (Diagonal)	inch
Display Format	1024RGB(H)×600(V)	dot
Active Area	153.6(H)×86.64(V)	mm
PIXEL Pitch	0.15(H)×0.1444(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	TN Type, Transmissive Mode, Normally White	-
Surface Treatment	Antiglare, Hard-Coating(3H)	-
Viewing Direction	6 O'clock (The Gray Inversion will appear at this direction)	-
Outline Dimension	165(W)×104(H)× 10.55(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

(Ta=25±2°C, GND=V_{SS}=0V)

Item	Symbol	Value		Unit
		Min.	Max.	
Power Supply Voltage	VCC	-0.3	24	V
BLEN	PWM	-0.3	6	V

Electrical Characteristics

TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value			Unit
		Min.	Typ.	Max.	
Power Supply Voltage	VCC	4.5	5.0	5.5	V
Power Supply Current	ICC	-	750	1050	mA
Power Supply Voltage	VCC	11.5	12.0	12.5	V
Power Supply Current	ICC	-	310	434	mA
VSYNC Frequency	F _V	-	60	-	Hz
DCLK Frequency	DCLK	-	51.2	-	MHz
PWM signal Low voltage	V _{PWML}	0	-	0.4	V
PWM signal High voltage	V _{PWMH}	1.4	-	5.5	V
PWM frequency	f _{PWM}	100	-	1000	Hz
LED Life Time(25°C)	-	50000	-	-	hr

Input / Output Terminals Pin Assignment

TFT-LCD Module

Connector: Mini-HDMI Connetor:

No.	Symbol	I/O	Description
1	TMDS Data2 Shield	I	Ground
2	TMDS Data2+	I	Channel-2 positive receiver input – Positive side of channel-2 TMDS low-voltage signal differential input pair. Channel-2 receives red-pixel data in active display and CTL2, CTL3 control signals in blank.
3	TMDS Data2–	I	Channel-2 negative receiver input – Negative side of channel-2 TMDS low-voltage signal differential input pair.
4	TMDS Data1 Shield	I	Ground
5	TMDS Data1+	I	Channel-1 positive receiver input – Positive side of channel-1 TMDS low-voltage signal differential input pair. Channel-1 receives green-pixel data in active display and CTL1 control signals in blank.
6	TMDS Data1–	I	Channel-1 negative receiver input – Negative side of channel-1 TMDS low-voltage signal differential input pair.
7	TMDS Data0 Shield	I	Ground
8	TMDS Data0+	I	Channel-0 positive receiver input – Positive side of channel-0. TMDS low-voltage signal differential input pair. Channel-0 receives blue pixel data in active display and HSYNC, VSYNC control signals in blank.
9	TMDS Data0–	I	Channel-0 negative receiver input – Negative side of channel-0. TMDS low-voltage signal differential input pair.
10	TMDS Clock Shield	I	Ground

No.	Symbol	I/O	Description
11	TMDS Clock+	I	Clock positive receiver input – Positive side of reference clock. TMDS low-voltage signal differential input pair
12	TMDS Clock–	I	Clock negative receiver input – Negative side of reference clock. TMDS low-voltage signal differential input pair
13	DDC Ground	I	Ground
14	N.C.	I	Not Connection
15	DCC_SCL	I	Serial Clock for EEPROM
16	DCC_SDA	I	Serial Data for EEPROM
17	Reserved (N.C. on device)	I	Not Connection
18	+5V Power	I	5V for EEPROM
19	HPD	I	Hot Plug Detect High: Active link Low: Inactive link

Connector

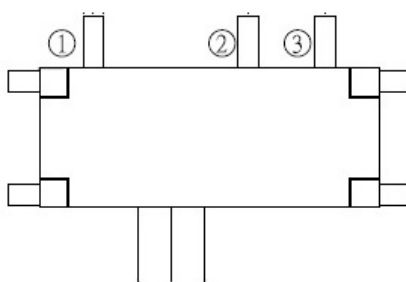
Connector: CI4412M2HR0 or compatible connector

No.	Symbol	Functions
1	VCC	Power supply for LCM
2	VCC	Power supply for LCM
3	BLEN	PWM Dimmer (Note 1)
4	NC	Not Connected
5	NC	Not Connected
6	NC	Not Connected
7	NC	Not Connected
8	NC	Not Connected
9	NC	Not Connected
10	NC	Not Connected
11	GND	Ground
12	GND	Ground

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

Slider Switch

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



Outline Drawing

