
Specification of LCD Controller Board

Model: R.RM5251

Contents

Page	Title
1	Contents
1	Brief introduction
2	Parameters
3	Analogue R.G. B mode table
3	Illustration of product's outline drawing
4	PCB dimension and structural drawing
4	PCB dimension
4	Structural drawing
5	Transportation, storage and operating requirements
5	OSD
5	Definition description of main interface

Brief introduction

1. Used in 14-19" lcd panels with LVDS interfaces;
2. Analogue R、 G、 B and DVI digital signal input and output;
3. Horizontal Scanning Frequency 30-80 KHz, Vertical Scanning Frequency 56-75Hz; Automatic detect synchronization, need to use separating Horizontal Scanning Frequency signal.
4. Audio amplified, 2x2W output with volume control remoter
5. Beautiful OSD with multi Language options.

2. Parameters

This section introduces detailed functions and parameters, see followings:

Input Signals	Analogue R.G. B	Support mode	DOS、VGA、SVGA、XGA、SXGA、WXGA、WXGA+
		Color	24BIT
		Horizontal Scanning Frequency	30---80KHz
		Vertical Scanning Frequency	50---75Hz
	DVI	Digital video signaling input	
	Audio	Output	2 X 2 W(8 Ω)
Interfaces	Analogue R.G. B	One D-SUB terminal	
	Digital DVI	DVI terminal	
	Power input	12V power, 5V terminal	
	Audio input	One earphone terminal	
	Keypad	9 PIN/2.0 in-line plug-in	
	Panel interface	One LVDS 30 PIN in-line plug-in	
	Inverter port	6 PIN/2.0 in-line plug-in	
	Audio output	4 PIN/2.0 in-line plug-in	
Power	Power input	DC 12V (+/-0.6V)	
	Panel voltage	3.3V / 5V/12V	
	Power operation	Normal operating mode, low power consumption mode	
	Power management	Standby <1W	
Others	Definition of buttons	Power、 Menu 、 + 、 — 、 Auto	
	OSD language	Chinese Simplified , Chinese Traditional, English, French, Italian, Spanish, German, Japanese, Korean, Portuguese	
	OSD function	Color adjustment, image adjustment, auto adjustment and menu adjustment	
	Remote control		

3. Analogue R.G. B mode table

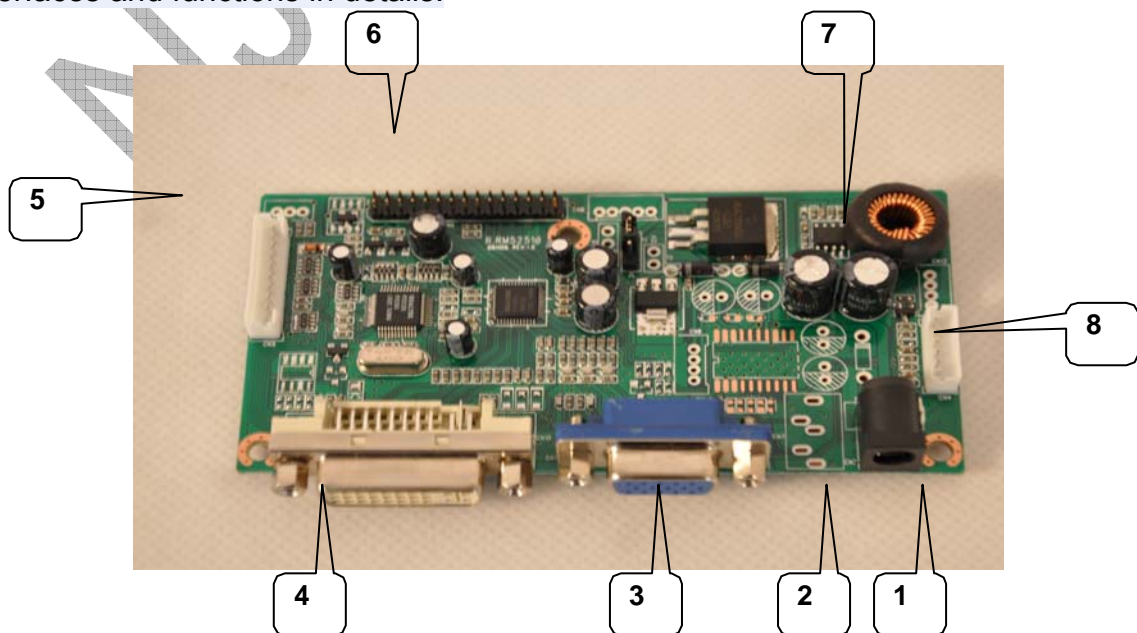
This section lists the analog R, G, B mode that this product can support, including Horizontal Scanning Frequency, Vertical Scanning Frequency and resolution.

Analogue R.G. B Mode Table

Mode	Resolution	HSF(KHz)	VSF(Hz)	Standard
WXGA+	1440X900	75.0	60	VESA
SXGA	1280X1024	63.5	60	VESA
		74.5	75	
		80.0		
XGA	1024X768	48.4	60	VESA
		56.5	70	
		60.0	75	
SVGA	800X600	37.9	60	VESA
		47.2	72	
		46.9	75	
VGA	640X480	31.5	60	VESA
		37.9	72	
		37.5	75	
DOS	640X480	31.5	60	VESA
	720X400	31.5	70	

4. Illustration of product's outline drawing

See below picture of R.RM5251 controller board. This section shows its main interfaces and functions in details.



(1) Function of every interface lists in below chart:

Sequence Number	Description of function	Sequence Number	Description of function
1	Power input	5(CN5)	Keypad socket
2	PC Audio input(phone input)	6(CN12)	LVDS Panel interface
3	Analogue R.G.B input	7(CN11)	Speaker interface
4	Digital DVI interface	8(CN10)	Inverter interface

P.S.: Part 2 need to customize.

5. PCB dimension and structural drawing

5.1 PCB dimension

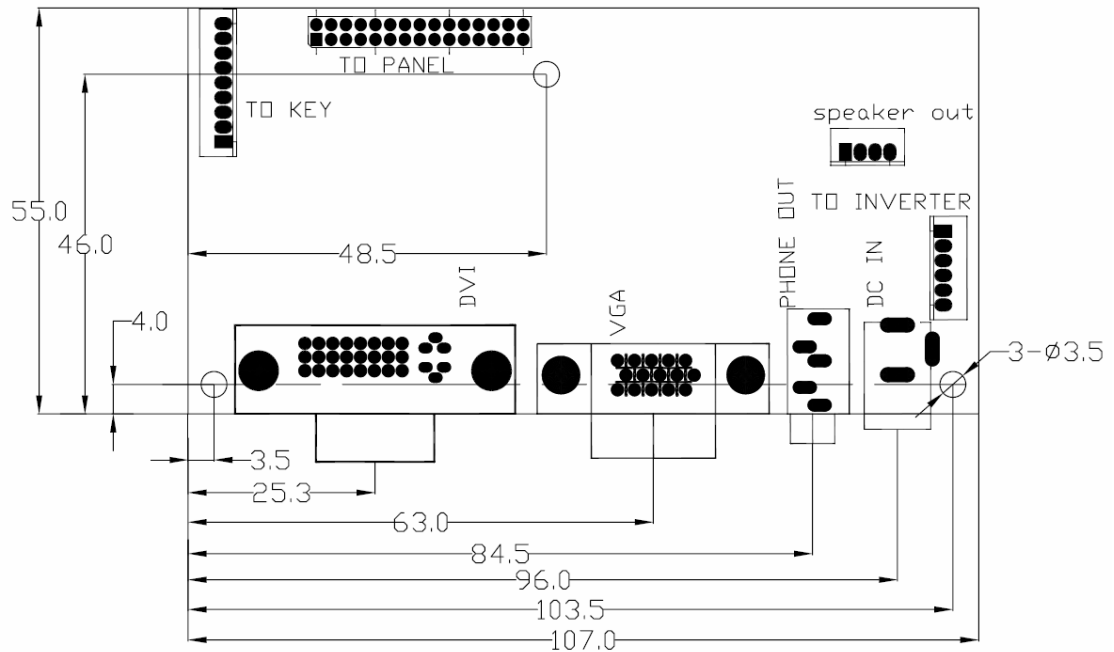
PCB thickness+ the height of the highest part =16.0mm

PCB length=107.0mm

PCB Width=55.0mm

Screw holes: 3.5mm

5.2 Structural drawing



6. Transportation, storage and operating requirements

Avoid pressing or bending

Keep away from static and moisture

Relative humidity $\leq 80\%$

Storage temperature: $-10 \sim +60^{\circ}\text{C}$

Working temperature : $0 \sim +40^{\circ}\text{C}$

7. OSD

Main menu(Just for your reference)



8. Definition of main interface (The first pin is on the left when facing the interface socket)

CN10(6PIN/2.0): Inverter Interface

Pin Sequence	Definition	Description
1	12V	Power
2	12V	Power
3	BL_ON	Backlight Control On/Off
4	ADJ	Luminance Adjustment
5	GND	Ground
6	GND	Ground

CN11 (4PIN/2.0): Speaker Interface

Pin Sequence	Definition	Description
1	LSPK	Left Channel Output(L/O)
2	GND	Ground
3	GND	Ground
4	RSPK	Right Channel Output(R/O)

CN22 (9PIN/2.0): Keypad Interface

Pin Sequence	Definition	Description
1	KO	Keypad interface 0
2	R	Red indicator light
3	G	Green indicator light
4	GND	Ground
5	K1	Keypad interface1
6	K2	Keypad interface2
7	K3	Keypad interface3
8	K4	Keypad interface4
9	K5	Keypad interface5

CN12 (2 X 15PIN/2.0) : LVDS Interface

Pin Sequence	Definition	Description
1	LCD-VDD	Power for Panel
2	LCD-VDD	Power for Panel
3	LCD-VDD	Power for Panel
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	RXO0-	LVDS ODD 0 - Signal
8	RXO0+	LVDS ODD 0 + Signal
9	RXO1-	LVDS ODD 1 - Signal
10	RXO1+	LVDS ODD 1 + Signal
11	RXO2-	LVDS ODD 2 - Signal
12	RXO2+	LVDS ODD 2 + Signal
13	GND	Ground
14	GND	Ground
15	RXOC-	LVDS ODD Clock - Signal
16	RXOC+	LVDS ODD Clock + Signal
17	RXO3-	LVDS ODD 3 - Signal
18	RXO3+	LVDS ODD 3 + Signal
19	RXE0-	LVDS EVEN 0 - Signal

20	RXE0+	LVDS EVEN 0 + Signal
21	RXE1-	LVDS EVEN 1 - Signal
22	RXE1+	LVDS EVEN 1 + Signal
23	RXE2-	LVDS EVEN 2 - Signal
24	RXE2+	LVDS EVEN 2 + Signal
25	GND	Ground
26	GND	Ground
27	RXEC-	LVDS EVEN Clock - Signal
28	RXEC+	LVDS EVEN Clock + Signal
29	RXE3-	LVDS EVEN 3 - Signal
30	RXE3+	LVDS EVEN 3 + Signal

NYT TOUCH