Specification of LCD Controller Board

Model: R.RM3251

Contents

This controller board is of high definition and stability. It can be used in 6 to 19 inch LCD panel, no matter the interface is single-port or double-port LVDS.

It can support the input and output of analogue R、G、B. The maximum resolution it can support is 1440X900. Audio earphone input and speaker output devices are offered for customers' convenience if specially required.

2. Parameters

This section introduces detailed functions and parameters, see followings:

Input Signal	Analogue R.G. B	Support mode	DOS、VGA、SVGA、XGA、SXGA、WXGA、WXGA+
		Color	Up to 32BIT
		Horizontal Scanning Frequency	30---80KHz

		Vertical Scanning Frequency	50---75Hz
Interface	Analogue R.G.B	One D-SUB terminal	
	Earphone input port	One earphone terminal	
	Panel interface	One LVDS 30PIN in-line plug-in	
	Power input	One power terminal	
Power	Power input	External 12V input (Power Adapter)	
	Panel voltage	3.3V / 5V/12V	
	Power operation	Normal operating mode, low power consumption mode	
	Power management	Standby <1w	
Others	Audio power output	2x1W（（8 Ω）	
	Definition of buttons	Power、 Menu 、+ 、— 、Auto	
	OSD language	Chinese Simplified， Chinese Traditional, English, French, Italian, Spanish, German, Japanese, Korean	
	OSD function	Color adjustment, image adjustment, auto adjustment and menu adjustment	

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.
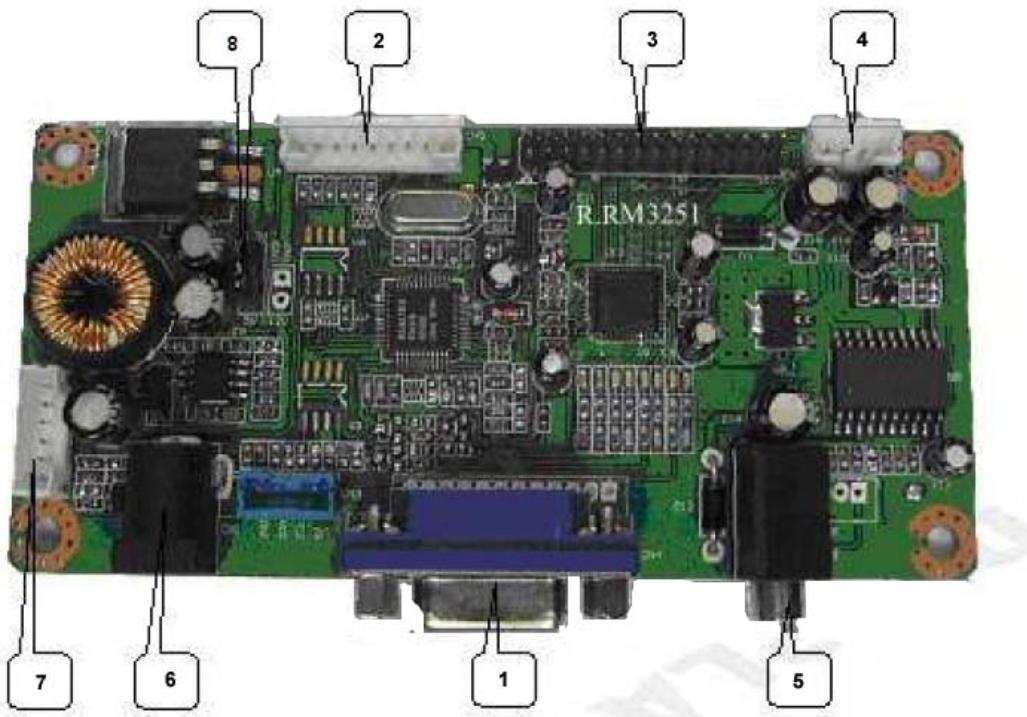
### Analogue R.G. B Mode Table

Mode	Resolution	Horizontal Scanning Frequency(KHZ)	Vertical Scanning Frequency(HZ)	Standard
WXGA+	1440X900	75.0	60	VESA
SXGA	1280X1024	63.5 74.5 80.0	60 75	VESA
XGA	1024X768	48.4 56.5	60 70	VESA

		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.RM3251 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	Analogue R.G.B input	5	Earphone input
2(CN5)	keypad socket	6	Power input
3(CN12)	LVDS panel interface	7(CN10)	Inverter interface
4(CN11)	Speaker interface	8	Panel Voltage jumper(adapter)3v/5v/12v

5. PCB dimension and structural drawing
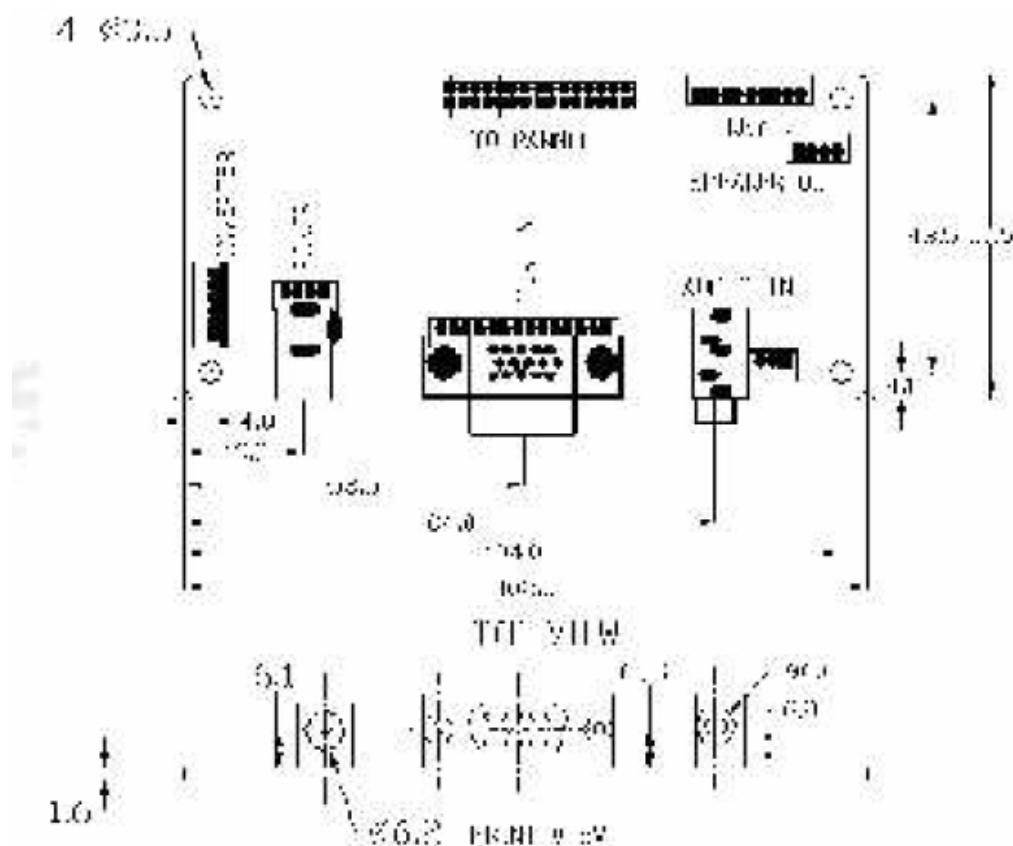
5.1 PCB dimension

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

PCB length=108.00mm

PCB Width=51.5mm

5.2 Structural drawing

6. Transportation, storage and operating requirements

Avoid pressing or bending

Keep away from static and moisture

Relative humidity≤80%

Storage temperature: -10～+60℃

Working temperature ：0～+40℃

7. 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	12V voltage
2	12V	12V voltage
3	BL_ON	Backlight Control
4	ADJ	Luminance Adjustment
5	GND	Ground
6	GND	Ground

CN11 (4PIN/2.0): Loudspeaker Interface

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

CN5 (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 EVEN 3 - Signal
18	RXO3+	LVDS EVEN 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