STK3251G TFT LCD driver board

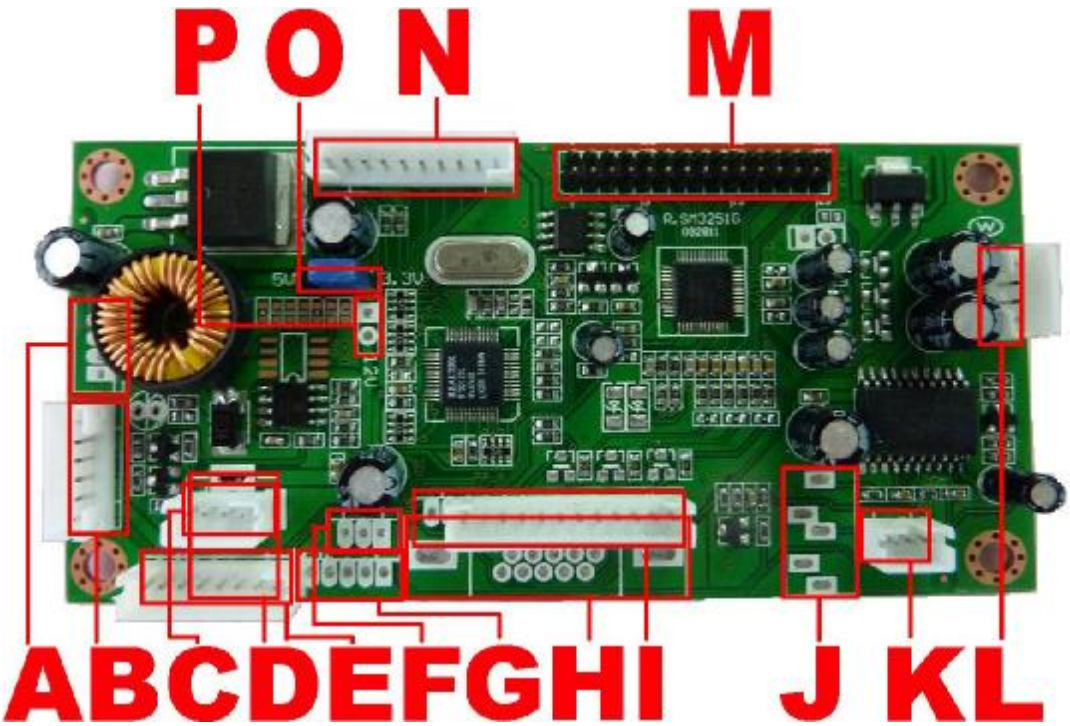
Specifications

Version:1.0

2009-08-15

STK **3251G** TFT LCD driver board

Specifications



R.SM3251G board picture

n Board main function

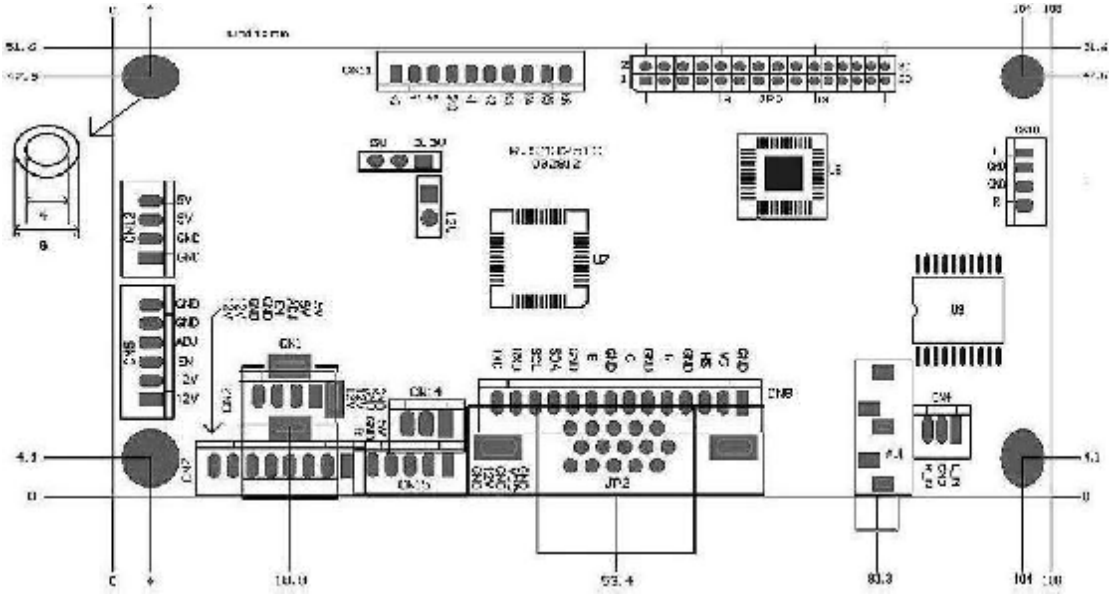
- Support anology RGB signal
- Support two channel audio
- Support single/dual channel LVDS
- Support resolution up to SXGA/WXGA+(1440x900)

n Board data

support LCD	type	**TFT-LCD**
	signal interface	single/dual channel LVDS
	color	6 Bit/8 Bit

	aspect ratio	4:3 / 5:4 etc	
	size	6.4 inch ～ 26 inch	
	voltage	3.3V / 5V / 12V	
	brand		
input output interface	input	VGA	analogy RGB15pin D-sub terminals (socked)x1
		audio	PC audio terminals × 1
			PC audio socked × 1
		power	DC source terminal(socked)× 1
			preset source interface
		keyboard	10Pin 2.0 line-inset socked × 1
	output	audio	4Pin 2.0 line-inset horn socked × 1
		LVDS socked	30Pin dual line-inset gold pin × 1
		high voltage socked	6Pin 2.0 line-inset socked× 1
singal type	VGA	synchronizing signal	line-field syns set
		signal swing	0.7Vp-p
		frequency range	HS: 30-88KHz; VS: 43-75Hz
		DDC	VESA EDID V1.3
power	input source	DC 12 V（+/-0.6V）	
	work mode	normal mode , low power consumption mode (<3W)	
	DPMS	support	
keyboard	support 5 grounded key		
remote control	unsupport		
PA	Class B, 2x3W (8Ω)		
main IC	RTD2025L/ RTD2525L	Scalar	
	RTD2120	MCU	
	TDA7496	audio processing IC	
dimensions	108mm(L)×51.6mm (W)		
OSD language	support Chinese,English etc		
other	support VGA interface upgrate		

n board structure picture



n defauld mode table

```
_MODE_640x350_70HZ,
_MODE_640x400_56HZ,
_MODE_640x400_70HZ,
_MODE_720x400_70HZ,
_MODE_640x400_701HZ,
_MODE_640x400_85HZ,
_MODE_720x400_85HZ,
_MODE_640x480_60HZ,
_MODE_640x480_66HZ,
_MODE_640x480_72HZ,
_MODE_640x480_75HZ,
_MODE_640x480_85HZ,
_MODE_800x600_56HZ,
_MODE_800x600_60HZ,
_MODE_800x600_72HZ,
_MODE_800x600_75HZ,
_MODE_800x600_85HZ,
_MODE_1024x768_60HZ,
_MODE_1024x768_66HZ,
_MODE_1024x768_70HZ,
_MODE_1024x768_72HZ,
_MODE_1024x768_75HZ,
_MODE_1024x768_85HZ,
_MODE_1024x800_73HZ,
_MODE_1024x800_85HZ,
_MODE_1152x864_60HZ,
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_MODE_1152x864_70HZ,
_MODE_1152x864_75HZ,
_MODE_1152x864_85HZ,
_MODE_1152x870_75HZ,
_MODE_1152x900_66HZ,
_MODE_1152x900_76HZ,
_MODE_1280x720_60HZ,
_MODE_1280x720_75HZ,
_MODE_1280x768_60HZ,
_MODE_1280x768_70HZ,
_MODE_1280x768_75HZ,
_MODE_1280x960_60HZ,
_MODE_1280x960_75HZ,
_MODE_1280x960_85HZ,
_MODE_1280x1024_60HZ,
_MODE_1280x1024_70HZ,
_MODE_1280x1024_75HZ,
_MODE_1280x1024_85HZ,
_MODE_1600x1200_60HZ,
_MODE_1600x1200_65HZ,
_MODE_1600x1200_70HZ,
_MODE_1600x1200_75HZ,
_MODE_1600x1200_85HZ,
_MODE_1680x1050_60HZ,
_MODE_1680x1050_75HZ,
_MODE_1920x1200_60HZ,
_MODE_1920x1200_75HZ,
_MODE_1920x1440_60HZ,
_MODE_1440x480i_60HZ,
_MODE_1920x1080i_60HZ,
_MODE_1920x1080_60HZ,
_MODE_1440x900_60HZ,
_MODE_1440x900_75HZ,
```

the defauld mode is the normal mode,special mode need to be add

n mark description

No	description	interface
A	5V preset source socked interface	-
B	INVERTER interface	-
C	12Vsource socked interface	-
D	12V source teminal interface	-

E	preset source socked interface 1	-
F	IR preset socked interface	-
G	preset source socked interface 2	-
H	VGA signal input teminal interface	-
I	VGA signal input socked interface	-
J	audio input teminal interface	-
K	audio input socked interface	-
L	audio output socked interface	-
M	LVDS signal interface	-
N	key socked interface	-
O	3.3/5V panel source interface	-
P	12V panel source interface	-

n input/output interface description

A (4PIN/2.0)：5V preset source socked interface

pin No	definition	description
1	GND	ground
2	GND	ground
3	5V	5V source
4	5V	5V source

top

B (6PIN/2.0)：INVERTER socked interface

pin No	definition	description
1	12V	12V INVERTER source
2	12V	12V INVERTER source
3	BLON	INVERTER switch control
4	ADJ	backlight brightness adjust
5	GND	ground
6	GND	ground

Top

C (4PIN/2.0)：12V source socked interface

pin No	definition	description
1	GND	ground
2	GND	ground
3	12V	12V source
4	12V	12V source

top

E (8PIN/2.0) preset source socked interce 1

pin No	definition	description
1	5V	5V source
2	5V	5V source
3	ADJ	backlight brightness adjust
4	BLON	INVERTER switch control
5	GND	ground
6	GND	ground
7	12V	12V source
8	12V	12V source

top

F (3PIN/2.0)：IR preset socked interce

pin No	definition	description
1	5V	5V source
2	GND	ground
3	IR	IR input

top

G (5PIN/2.0) preset source socked interce 2

pin No	definition	description
1	GND	ground
2	PVCC	panel source 3.3/5/12V
5	GND	ground
4	12V	12V source
5	GND	ground

top

O (3PIN/2.5) 3.3V/5V panel source interface

pin No	definition	description
1	3.3V	3.3V source
2	PVCC	panel source
3	5V	5V source

P (2PIN/2.5) 12V panel source interface

pin No	definition	description
1	PVCC	panel source
2	12V	12V source

Top

N (10PIN/2.0) key socked interface

pin No	definition	description
1	K0	key socked K0
2	LED-R	red LED
3	LED-G	green LED
4	GND	ground
5	K1	key socked K1
6	K2	key socked K2
7	K3	key socked K3
8	K4	key socked K4
9	K5	key socked K5
10	K6	key socked K6

Top

I (14PIN/2.0)：VGA signal input socked interface

pin No	definition	description
1	GND	ground
2	VS	field Sync
3	HS	Line Sync
4	GND	ground
5	RIN	red signal input
6	GND	ground
7	GIN	green signal input
8	GND	ground
9	BIN	blue signal input
10	GND	ground
11	SDA	DDC data interface(or upgrate interface)
12	SCL	DDC time interface(or upgrate interface)
13	RXD	serial receive interface
14	TXD	serial port interface

Top

K (3PIN/2.0) audio input socked interface

pin No	definition	description
1	L_IN	left sound channel
2	GND	ground
3	R_IN	right sound channel

Top

L (4PIN/2.0) audio output socked interface

pin No	definition	description
1	L_OUT	left sound channel
2	GND	ground
3	GND	ground
4	R_OUT	right sound channel

Top

M (30PIN/2.0)：LVDS signal interface

pin No	definition	type	description

1	VDD	Power	Power for Panel
2	VDD	Power	Power for Panel
3	VDD	Power	Power for Panel
4	GND	Ground	Ground
5	GND	Ground	Ground
6	GND	Ground	Ground
7	RxO 0-	Output	LVDS Signal of Odd Channel 0(-)
8	RxO 0+	Output	LVDS Signal of Odd Channel 0(+)
9	RxO 1-	Output	LVDS Signal of Odd Channel 1(-)
10	RxO 1+	Output	LVDS Signal of Odd Channel 1(+)
11	RxO 2-	Output	LVDS Signal of Odd Channel 2(-)
12	RxO 2+	Output	LVDS Signal of Odd Channel 2(+)
13	GND	Ground	Ground
14	GND	Ground	Ground
15	RxO C-	Output	LVDS Signal of Odd Channel Clock(-)
16	RxO C+	Output	LVDS Signal of Odd Channel Clock(+)
17	RxO 3-	Output	LVDS Signal of Odd Channel 3(-)
18	RxO 3+	Output	LVDS Signal of Odd Channel 3(+)
19	RxE 0-	Output	LVDS Signal of Even Channel 0(-)
20	RxE 0+	Output	LVDS Signal of Even Channel 0(+)
21	RxE 1-	Output	LVDS Signal of Even Channel 1(-)
22	RxE 1+	Output	LVDS Signal of Even Channel 1(+)
23	RxE 2-	Output	LVDS Signal of Even Channel 2(-)
24	RxE 2+	Output	LVDS Signal of Even Channel 2(+)
25	GND	Ground	Ground
26	GND	Ground	Ground
27	RxE C-	Output	LVDS Signal of Even Channel Clock(-)
28	RxE C+	Output	LVDS Signal of Even Channel Clock(+)
29	RxE 3-	Output	LVDS Signal of Even Channel 3(-)
30	RxE 3+	Output	LVDS Signal of Even Channel 3(+)

Top

n transport,storage,use requirements

- avoid weight,bending,deformation
- avoid electrostatic
- relative humidity:=< 80%
- storage temperature:-10~+60℃
- operating temperature:0~+40℃