

# 4K Board Specification

-----Model:BTP-LC520 V1.1

-----Rev:Version 1.1

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## ● General Description

LC520 is a high integrated TFT LCD **monitor mainboard**, The mainboard supports 3840\*2160(**up to 60HZ**) format. It also supports **1\* HDMI2.0+1\*DP1.2** input and then **HDCP 2.2** included. The output is **V-BY-ONE interface**, It can display 16.7M colors, LC520 has small size also support remote control, also have small size, Mainboard can be **customized**.

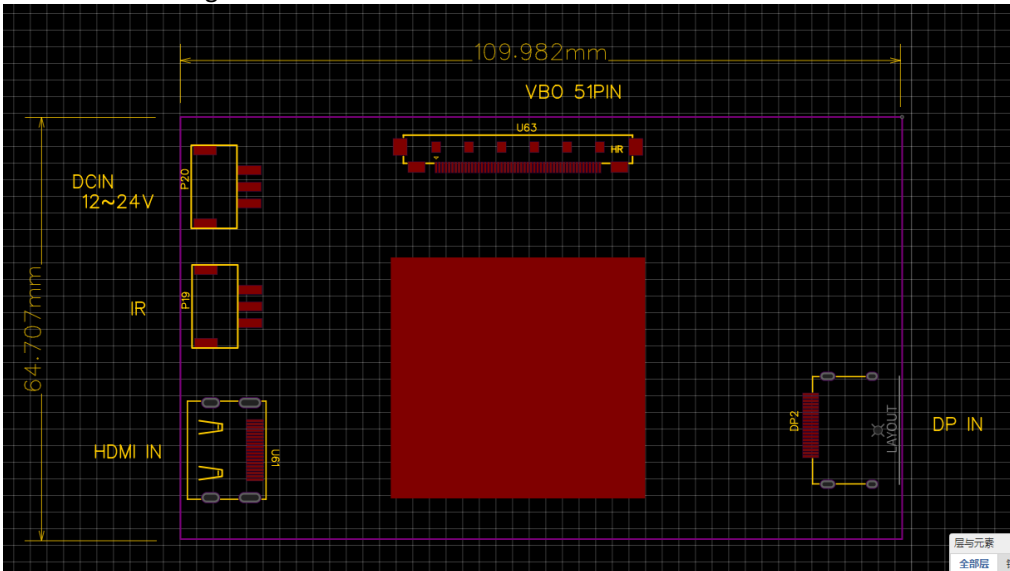
## ● Features

Language	OSD	Chinese, English( can support 6 languages )
Interface	output	8lane V-by-ONE
	input	<b>1 * HDMI 2.0 +1*DP 1.2</b>
Size	Size(mm)	64.7mm*110mm*11mm
Panel	resolution	3840×2160/60Hz
	Panel	BOE\LG\Innolux
Agreement	HDCP	HDCP 2.2
Power	<b>DC spec</b>	<b>0-24V</b>
	Power management	Standby power < 0.5W
	Power(Two kinds supply)	Pin 3 (12V+GND+GND)
Speaker	Speaker	None
	Line Out	None
Display	Ycbr	<b>4:4:4 / RGB / 4:2:2 / 4:2:0</b>
	Pixel to Pixel	Yes
Channel	Channel switching	OK
Program update	Program update	HDMI Update
Customization	Customization	OK
3C/CE	PASS	PASS

# ● Function Layout



Reference drawings:



Thickness: 11mm

## ● Interface Definition

### ◆ CN1(3PIN/3.96MM): Power Inside

item		Describe
1	12V	24V
2	GN D	Ground
3	12V	24V

### ◆ CN2(3PIN/2.0MM):IR

item		Describe
1	5V	5V
2	IR	IR
3	GN D	GND

### ◆ CNF3:V\_by\_one to panel definition: / FI-RE51HL

Pin	SYMBOL	NOTES
1	AGND	Ground
2	VB7p	Positive V-by-ONE Differential Data Output
3	VB7n	Negative V-by-ONE Differential Data Output
4	AGND	Ground
5	VB6p	Positive V-by-ONE Differential Data Output
6	VB6n	Negative V-by-ONE Differential Data Output
7	AGND	Ground
8	VB5p	Positive V-by-ONE Differential Data Output
9	VB5n	Negative V-by-ONE Differential Data Output
10	AGND	Ground
11	VB4p	Positive V-by-ONE Differential Data Output
12	VB4n	Negative V-by-ONE Differential Data Output
13	AGND	Ground
14	VB3p	Positive V-by-ONE Differential Data Output
15	VB3n	Negative V-by-ONE Differential Data Output
16	AGND	Ground
17	VB2p	Positive V-by-ONE Differential Data Output
18	VB2n	Negative V-by-ONE Differential Data Output
19	AGND	Ground
20	VB1p	Positive V-by-ONE Differential Data Output
21	VB1n	Negative V-by-ONE Differential Data Output
22	AGND	Ground
23	VB0p	Positive V-by-ONE Differential Data Output

24	VBY0n	Negative V-by-ONE Differential Data Output
25	AGND	GND
26	LOCKN	LOCKN Output
27	HTPDN	HTPDN Output
28	AGND	Ground
29	AGND	Ground
30	LD-EN	LD-EN
31	BIT-SET	BIT-SET
32	NC	No define
33	SCL	IIC SCL
34	SDA	IIC SDA
35	3D-EN	3D-EN
36	Fomat1	D_Fomat1
37	Fomat0	D_Fomat0
38	AGND	Ground
39	AGND	Ground
40	AGND	Ground
41	AGND	Ground
42	AGND	Ground
43	NC	No define
44	VCC	PANEL VCC_12V
45	VCC	PANEL VCC_12V
46	VCC	PANEL VCC_12V
47	VCC	PANEL VCC_12V
48	VCC	PANEL VCC_12V
49	VCC	PANEL VCC_12V
50	VCC	PANEL VCC_12V
51	VCC	PANEL VCC_12V

◆ J4(4PIN/2.0):BL-OUT

PIN No.	Def.	Description
1	GND	GND
2	GND	GND
3	ADJ	ADJ
4	EN	EN
5	12V	12V
6	12V	12V