Product Specification

MODEL NO.:JFC2KHVUV59L

Product version: V1.0

Customer: Common Model

APPROVED BY   SIGNATURE

Note

1. Be aware of product version.

2. Please contact with JFC when you need

any parameters unavailable in this

Approved By	Checked By	Prepared By
SIM ZHANG	CHEN SHI	FU YAN QIANG

Content

1. Product Introduction

V59,AV is multifunctional drive board for LCD Panels, which can directly drive the resolution of 1920*1080 or below with LVDS interface panel. Its compactable construction is convenient to built-in various electronic products, like Car display panel, Advertising application. With the abundant external interface functions, it satisfies the changeable market demands.

2.Product Features

(1)1 lane VGA signal input

(2)1 lane VGA HDMI signal input, compatible with HDMI 1.3/1.4,HDCP 1.2

(3)2 lane AV signal input, interface compatible with BNC Socket

(4)1 lane YPbPr signal input

（5）1 lane reverse signal input. The scope of the signal can support input from 5V to 50V, which will show on AV2

(6)It supports wide voltage input and works within 10V-24V

(7)Standard 6Pin backlight interface for external High Voltage Board

(8)Standard LVDS signal output supports single 6, single 8, dual 6, dual 8 and other standard LVDS signal panel, also supports to provide power 3.3V, 5V, 12V for LCD panel.

(9) Standard button board interface supports dual-color LED indicator.

(10) Remote control function can be added.

(11) It has four fixed holes.

(12) If there is special requirement, we can customize for you.

3. Description of Interface Function

Signal	Function Description	Remark
CON10	Power input	
CN1	HDMI signal input	
J1	HDMI signal input, gold needle interface	
CON5	OSD, remote control, LED indicator connector	
CON8	External inverter board socket	
CONE2	12V power supply	
CONE1	3.3V and 5V power supply	Voltage choice has to be based upon the specific power manual, wire jumper at the related position.
CON6	LVDS signal output	
J11	Audio output	Pin gap is 2.5MM.only can

		choose one signal J11 or J4
J4	Audio output	Pin gap is 2.5MM.only can choose one signal J11 or J4
J5	YPbPr signal input	
J10	2 lanes AV signal input and reverse voltage input	
J7	AV1 signal input	select one between J7 and J9
J9	AV1 signal input, BNC socket	select one between J7 and J9
J6	AV2 signal input	select one between J6 and J8
J8	AV2 signal input, BNC socket	select one between J6 and J8
CON2	USB socket	select one between CON2 and CON4
CON4	4P 2.0mm USB signal input	select one between CON2 and CON4
P3	Audio signal input	
CON7	Audio signal input	3P 2.0mm gap
J3	VGA signal input	12P 2.0mm gap
CON1	VGA signal input	
CON3	BEBUG socket	2.0mm gap

4.VGA mode

640*480	support
800*600	support
1024*768	support
1024*600	support
1280*1024	support
1366*768	support
1440*900	support
....	....
1920*1080	support
Other resolutions can be added.	

5.AV analog

NTSC	support
PAL	support

6.Application Environment

Working temperature: 0~+50°C
Storage temperature: -20~+60°C
Working temperature: 10%----80%RH (No condensation)
Storage temperature: 10%----93%RH (No condensation)

7.Socket Pin Definition

Power input socket: CON10			
Pin	Symbol	Description	Remark
1,2	+12V	Positive (+)	It is a interface at this place, standard 12V adaptor is workable.
3,4	GND	GND	

HDMI input :CN1			
Pin	Symbol	Description	Remark
1～19		Standard HDMI interface	Standard Cables

HDMI input socket:J1			
Pin	Symbol	Description	Remark
1	D2+	TMDS Data 2+	
2	D2-	TMDS Data 2-	
3	D1+	TMDS Data 1+	
4	D1-	TMDS Data 1-	
5	D0+	TMDS Data 0+	
6	D0-	TMDS Data 0-	
7	CK+	TMDS Clock+	
8	CK-	TMDS Clock-	
9	SCL	SCL	
10	SDA	SDA	
11	GND	GND	
12	GND	GND	
13	+5V	+5V Power	
14	HPD	Hot Plug Detect	
15	GND	GND	
16	GND	GND	
17	GND	GND	
18	GND	GND	
19	GND	GND	
20	GND	GND	

VGA input terminal :CON1			
Pin	Symbol	Description	Remark
1～15	D-15	Standard interface	Standard Cables

VGA input socket:J3			
Pin	Symbol	Description	Remark
1	GND	GND	
2	VS	Vertical synchronizing signal	
3	HS	Horizontal synchronizing signal	
4	GND	GND	
5	RIN	Red Chrominance signal	
6	GND	GND	
7	GIN	Green Chrominance signal	
8	GND	GND	
9	BIN	Blue Chrominance signal	
10	GND	GND	
11	TX	Serial data sending terminal	
12	RX	Serial data receiving terminal	

DEBUG socket:CON3			
Pin	Symbol	Description	Remark
1	5V	+5V power	
2	RX	Serial data sending terminal	
3	TX	Serial data receiving terminal	
4	GND	GND	

Audio input socket:P3			
Pin	Symbol	Description	Remark
1-5		Standard interface	Standard Cables

Audio input socket:CON7			
1	AUR	Right Audio signal input	

2	GND	GND	
3	RXAUL	Left Audio signal input	

USB interface: CON2			
Pin	Symbol	Description	Remark
1-8		Standard interface	

USB socket:CON4			
1	GND	GND	
2	DP	Data+	
3	DM	Data-	
4	5V	+5V power	

YPbPR input socket:J5			
Pin	Symbol	Description	Remark
1	PY	Chromatic aberration signal PY	
2	GND	GND	
3	PB	Chromatic aberration signal PB	
4	GND	GND	
5	PR	Chromatic aberration signal PR	

AV and reverse input socket:J10			
Pin	Symbol	Description	Remark
1	GND	GND	
2	AV2	AV Channel 2	
3	GND	GND	
4	AV1	AV Channel 1	
5	AOC	Reverse voltage input:12V After input then jump to AV2	

AV Channel 1 input terminal:J7，J9			
Pin	Symbol	Description	Remark
1-4		Standard interface	Standard cables

AV Channel 2 input: J6，J8

Pin	Symbol	Description	Remark
1-4		Standard interface	Standard cables

Audio input socket:J11,J4			
Pin	Symbol	Description	Remark
1	LOUT-	Left audio output signal -	
2	LOUT+	Left audio output signal +	
3	ROUT+	Right audio output signal +	
4	ROUT-	Right audio output signal -	

Audio input socket:J11,J4			
Pin	Symbol	Description	Remark
1	VCC	Power supply for panel	
2	VCC	Power supply for panel	
3	NC	No connect	
4	NC	No connect	
5	GND	GND	
6	GND	GND	
7	RO0-	LVDS0- Signal ODD	
8	RO0+	LVDS0+ Signal ODD	
9	RO1-	LVDS1- Signal ODD	
10	RO1+	LVDS1+ Signal ODD	
11	RO2-	LVDS2- Signal ODD	
12	RO2+	LVDS2+ Signal ODD	
13	GND	GND	
14	GND	GND	
15	OCK-	LVDS Clock- Signal ODD	
16	OCK+	LVDS Clock+ Signal ODD	
17	RO3-	LVDS3- Signal ODD	
18	RO3+	LVDS3+ Signal ODD	
19	RE0-	LVDS0- Signal EVEN	
20	RE0+	LVDS0+ Signal EVEN	

21	RE1-	LVDS1- Signal EVEN	
22	RE1+	LVDS1+ Signal EVEN	
23	RE2-	LVDS2- Signal EVEN	
24	RE2+	LVDS2+ Signal EVEN	
25	GND	GND	
26	GND	GND	
27	ECK-	LVDS Clock- Signal EVEN	
28	ECK+	LVDS Clock+ Signal EVEN	
29	RE3-	LVDS3- Signal EVEN	
30	RE3+	LVDS3+ Signal EVEN	

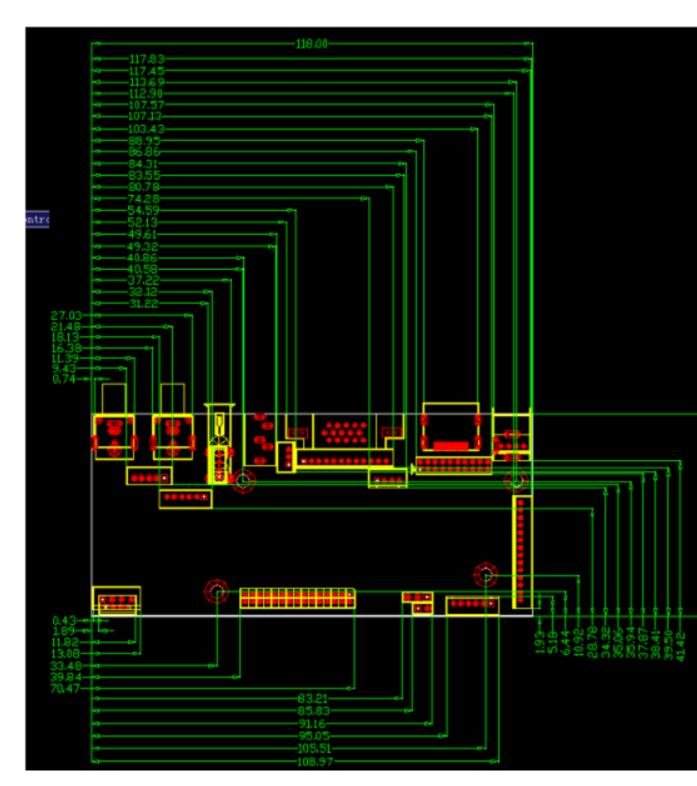| Button Board ,Remote control input socket:CON5			
Pin	Symbol	Description	Remark
1	+5V	Powered by Remote control, actually is 5V	
2	IR	Remote control input	
3	GND	GND	
4	K0	ON/OFF function	
5	LEDR	LED indicator	
6	LEDG	LED indicator	
7	GND	GND	
8	K1	Volume +	
9	K2	Volume -	
10	K3	Signal Switch	
11	K4	Menu display function	
12	K5	Signal Switch: UP	
13	K6	Signal Switch: DOWN	
14	K7	No function	

8.Structure Drawing

PCB dimension
Unit: MM
Differential:±0.3mm

9. Using Instruction

(1). Humidity: ≤80%

(2). Storage Temperature: -10~+60°C

(3). Working Temperature: 0~+50°C

10. Precautions

(1). Avoiding damages caused by twisting, bending, collision and failing to ground while assembly.

(2) Using ESD Shielding bag to package, As this board has no cover to protect, so, please make sure anti-static.

(3). Don't use this board onto inapplicable product to avoid unexpected damaging

(4). When the board is working, please make sure no metal drop onto the it.

(5). When an output interface is not used, suspend it.

(6). For the safety, while a whole device is assembled, please keep the board at last 4mm far away from any metal material of the whole device, or make sure enough insulated material between them.

(7). Keep hot temperature away from the connecting cables of the board, or the board could not work normally. No connection with conducting cables, or electric circuit performance will be affected.

11.Product Picture

12. Change record

Serial NO.	Changed Date	Version	Changed Reason	Changed Information	Changed BY	Confirmed BY