

VS DISPLAY TECHNOLOGY (HK) LTD

SPECIFICATION FOR LCD MODULE

Model No.: VS-PVI035V1.0

ORGANIZED BY	CHECKED BY	APPROVED BY
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1. Application

VS-PVI035V1.0 Driver Board is mainly designed for PVI, PD035VX2 LCD PANELS.

2. Product Function Description

- 2.1 The input signal can be VGA, CVBS1 or CVBS2
- 2.2 Power supply: DC+5V
- 2.3 with Remote Control
- 2.4 Multi function OSD Operation

3. Standard Signal Input

- 3.1 CVBS: 1.0V_{p-p}75 Ω
- 3.2 VGA: 640*480 (60-75HZ)

4. Work Temp

- 3.1 Work Temp : -10°C~+60°C
- 3.2 Operation Humidity : 90%RH

5. Storage Temp

- 4.1 Storage Temp: -20°C~+70°C
- 4.2 Storage Humidity : 90%RH

6. Operate Power Requirements

(Ta=25°C)

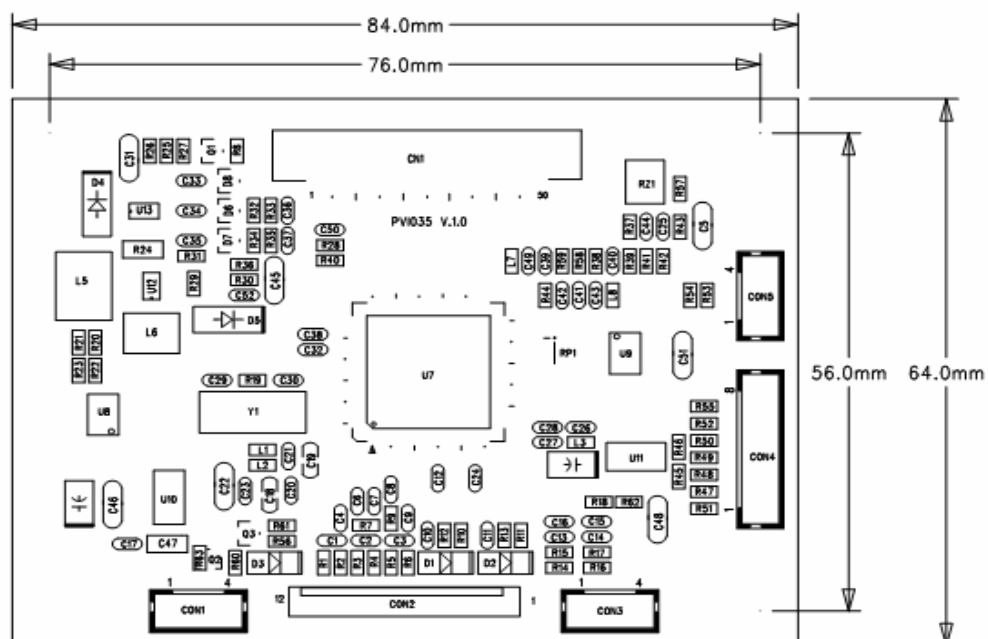
ITEM	MIN	TYP	MAX	UNIT
Operate Voltage	+4.80	+5.00	+5.20	V
Operate Current	320	310	300	mA

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7.1 PICTURE:



7.2 OUTLINE STRUCTURE (UNIT:mm)



Total thickness: 10.0mm (include electronic component)

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KEYBOARD SIZE:



Total thickness: 15.0mm (include electronic component)

7.3 7.3 Interface Definition :

7.3.1 CN1 (50P-0.5) LCD PIN Definition (PD035VX2)

Pin No	DEFINE	I/O	DESCRIPTION	NOTE
1	DIO1	I/O	Horizontal Start Pulse Signal Input or Output 1	
2	VSS2	I	Ground	
3	VDD1	I	Power Supply	
4	CLK	I	Horizontal Shift Clock	
5	L/R	I	Left/Right Selection	
6	R0	I	Red Data (LSB)	
7	R1	I	Red Data	
8	R2	I	Red Data	
9	R3	I	Red Data	
10	R4	I	Red Data	
11	R5	I	Red Data	
12	VSS2	I	Ground	
13	G0	I	Green Data (LSB)	
14	G1	I	Green Data	
15	G2	I	Green Data	
16	G3	I	Green Data	
17	G4	I	Green Data	
18	G5	I	Green Data (MSB)	
19	B0	I	Blue Data (LSB)	
20	B1	I	Blue Data	
21	B2	I	Blue Data	
22	B3	I	Blue Data	
23	B4	I	Blue Data	
24	B5	I	Blue Data	
25	LD	I	Load output signal	

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26	REV	I	Data invert control	
27	POL	I	Polarity selection	
28	DIO2	I/O	Horizontal Start Pulse Signal Input or Output	
29	VSS2	I	Ground	
30	V3	I	Gamma Voltage 3	
31	V5	I	Gamma Voltage 5	
32	V7	I	Gamma Voltage 7	
33	V8	I	Gamma Voltage 8	
34	V10	I	Gamma Voltage 10	
35	V12	I	Gamma Voltage 12	
36	VSS2	I	Ground	
37	VDD2	I	Voltage for analog circuit	
38	VCOM	I	Common Voltage	
39	OE	I	Output Enable	
40	U/D	I	Up/Down Selection	
41	CKV	I	Vertical Shift Clock	
42	STVU	I/O	Vertical Shift Pulse Signal Input or Output	
43	STVD	I/O	Vertical Shift Pulse Signal Input or Output	
44	VGG	I	Gate On Voltage	
45	VSS1	I	Ground	
46	VCC	I	Voltage for logic circuit	
47	VEE	I	Gate Off Voltage	
48	VLED	-	Supply voltage for LED backlight	
49	GLD2	-	Ground for LED backlight	
50	GLD1	-	Ground for LED backlight	

7.3.2 CON3 (4PIN/2.0) Signal Input Interface Definition

Pin No	DEFINE	DESCRIPTION
1	AV2	AV INPUT
2	GND	GROUND
3	AV1	AV INPUT
4	GND	GROUND

7.3.3 CON2 (12PIN 2.0) VGA Signal Input Interface Definition

Pin No	DEFINE	DESCRIPTION
1	GND	NC
2	VS	
3	HS	
4	GND	NC
5	R+	RED SIGNAL
6	GND	GROUND
7	G+	GREEN SIGNAL+
8	GND	+GROUND
9	B+	BLUE SIGNAL
10	GND	GROUND
11	NC	
12	NC	

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7.3.4 CON4 (8PIN/2.0) KEY BOARD INTERFACE DEFINITION

Pin No	DEFINITION	DESCRIPTION
1	KEY5	(MENU)
2	KEY4	RIGH
3	KEY3	LEFT
4	KEY2	SOURCE/UP
5	KEY1	(POWER)
6	IR	
7	GND	GROUND
8	VCC	3.3V

7.3.5 CON1 (4PIN/2.0) POWER SUPPLY INTERFACE DEFINITION

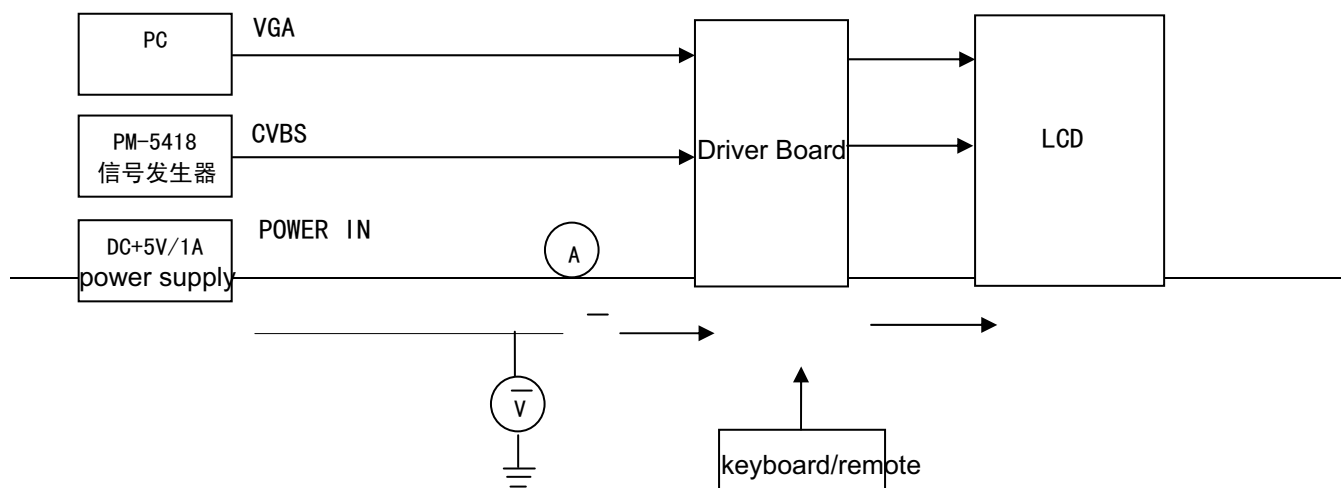
Pin No	DEFINITION	DESCRIPTION
1	+5V	POWER INPUT
2	+5V	POWER INPUT
3	GND	GROUND
4	GND	GROUND

7.3.6 CN16 (4PIN/2.0) ADJUST INTERFACE DEFINITION

Pin No	DEFINITION	DESCRIPTION
1	+5V	ADJUST POWER
2	GND	GROUND
3	TX	Serial Interface Output
4	RX	Serial Interface Input

8. Power Supply

8.1 Power supply test



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9. Electrical Parameter

9.1 driver board consumption

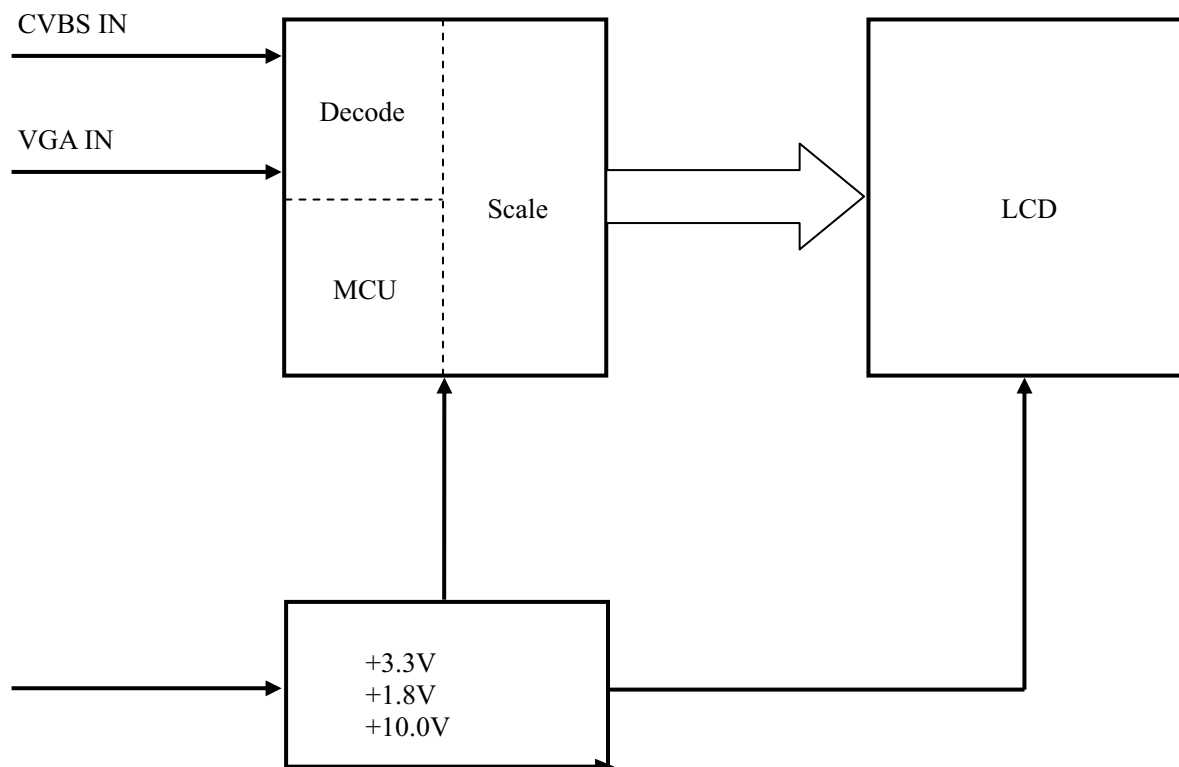
(Ta=25°C)

INPUT VOLTAGE (V)	INPUT CURRENT (I _{IN})				NOTE
	MIN	TYP	MAX	UNIT	
+5V	300	310	320	mA	

10. LCD SPEC (PD035VX2)

ITEM	SIZE	UNIT
LCD SIZE	3.5 (对角线)	inch
RESOLUTION	640 × (R, G, B) × 480	dot
EFFECTIVE AREA	72 (H) × 52.56 (V)	mm
Pixel size	0.1125 (H) × 0.1095 (V)	mm

11. Electric Loop



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12. Testing

TYPE	PROJECT	TEST CONDITIONS	TEST NO	STANDARD
Storage Temp Test	High Temp Test	+70℃ 96Hr	2	Regular after normal Temp Test
	Low Temp Test	-20℃ 96Hr	2	
Operate Temp Test	High Temp Test	+60℃ 96Hr	2	Normal operation during the test
	Low Temp Test	-10℃ 96Hr	2	
Cold Starting Test	Cold Starting Test	-20℃ $\xrightarrow{40\text{min}}$ ON $\xrightarrow{2\text{hours}}$ ON 4times $\xrightarrow{4\text{hours}}$ ON 4times $\xrightarrow{8\text{hours}}$ ON 1times	2	
Heat Cycle Test	Heat Cycle Test	-20℃ $\xrightarrow{30\text{min}}$ 25℃ $\xrightarrow{30\text{min}}$ 60℃ Continue working 30 cycles	2	
Constant temperature and humidity test		+60℃ 90%RH Continue working 24hours	2	