

V1.0

LCD CONTROL BOARD SPECIFICATION

MODEL: NT68674.5X

Part Number: NT-09121013

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REVISION HISTORY

VERSION	DATE	ID OF BOARD	PAGE	DESCRIPTION	AUTHOR
V1.0	09.12.10	NT68674.5A 9486	All	First issued	Vanessa

The information in the specification is subject to change without notice.

1. GENERAL DESCRIPTION

NT68674.5A is a LCD monitor control board which supports LED control board adopting single/dual LVDS connector. Its resolution is up to 1920X1200.

NT68674.5A supports HDMI V1.3 8/10/12 deep color mode and the resolutions of HDMI is up to 1080p@60Hz.

NT68674.5A can not only support external PC-RGB input and external audio input, but also for Built-In DVD.

2. FEATURES

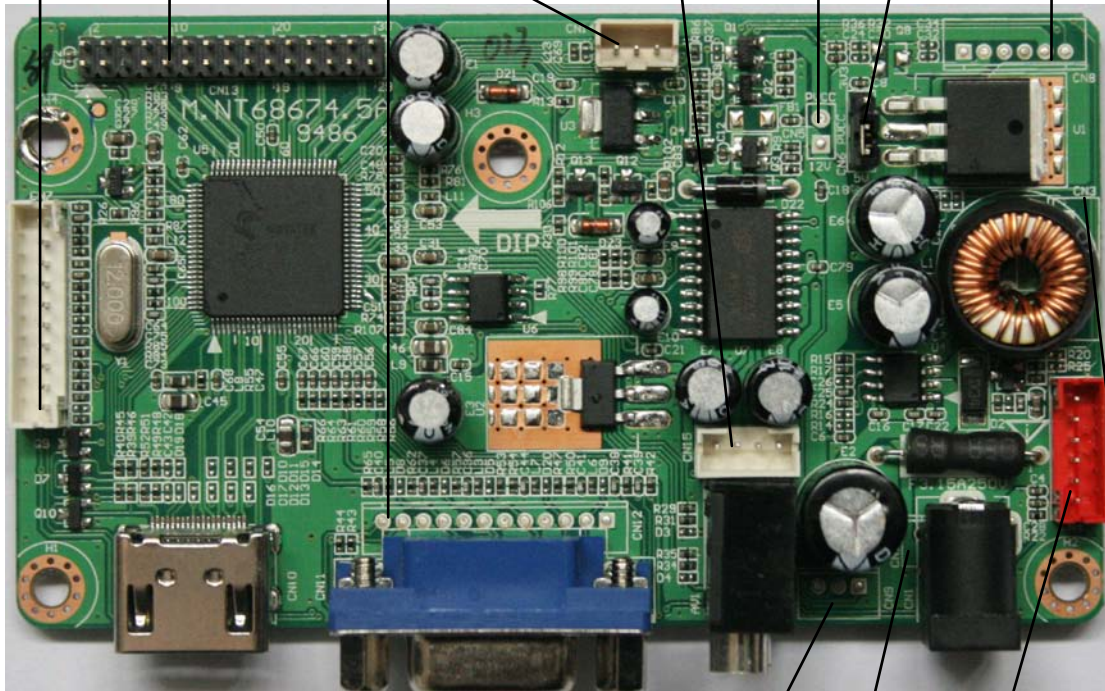
CHIPSET	NT68674	
PANEL	Interface	Single/Dual LVDS connector.
	Resolution	Up to1920x1200
POWER	Requirement	12V, 5V/12V
	To Panel	3.3V/5V/12V
	Management	Low power consumption mode, standby
	standby	<1W
OSD LANGUAGE	English/French/German/Italian/Spanish/Dutch/Portuguese	
KEY FUNCTION	POWER,MENU,VOL+,VOL-,INPUT,EXIT	
AUDIO OUTPUT POWER <i>Supply Voltage: 12V</i>	2x1W(8Ω) THD+N≤10%@1KHz	

3. FUNCTION LAYOUT

TOP VIEW OF NT68674.5A

NOTE: The optional connectors and terminals are marked with “*”.

CN7: Key Board & LED Indicator Connector	CN17: LVDS Interface	*CN12: External PC-RGB & DVD-YPbPr In	*CN14: IR Board Connector	CN15: Speaker Connector	CN5: 12V Power Jumper for Panel	CN6: 3.3V/5V Power Jumper for Panel	*CN8: DVD Power Supply
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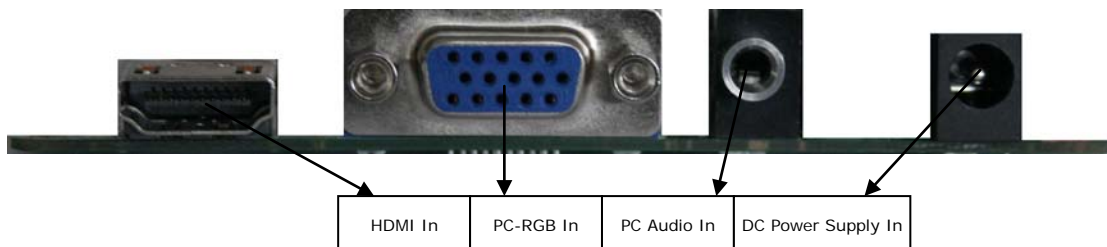


*CN9: External Audio In	*CN2: Built-in Power Supply Connector	CN4: Inverter	*CN3: Built-in Power Supply Connector
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Note:

The CN8, CN9 and CN12 are used for Built-In DVD.

SIDE VIEW OF NT68674.5A

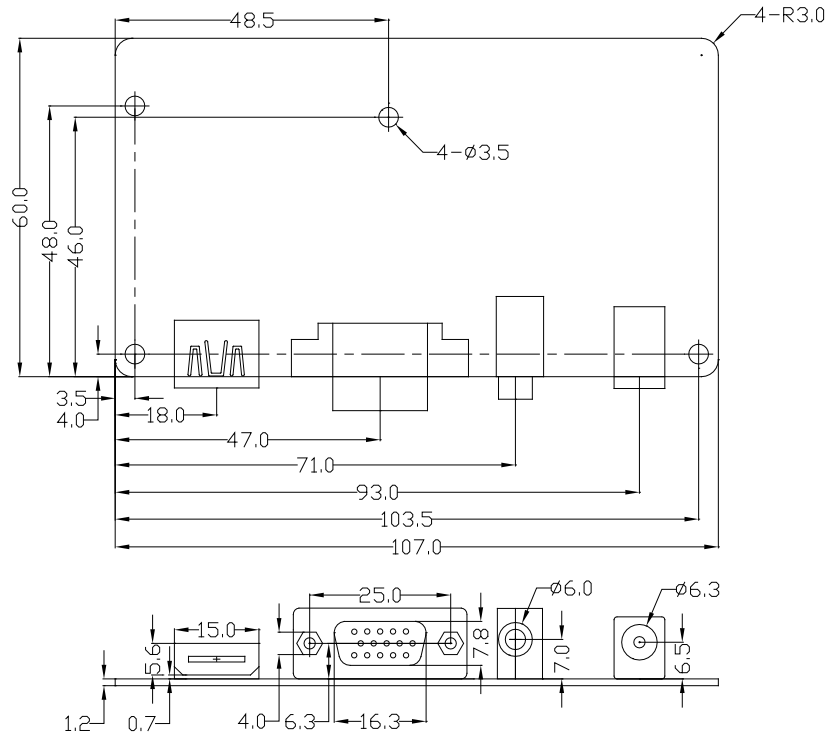


Note:

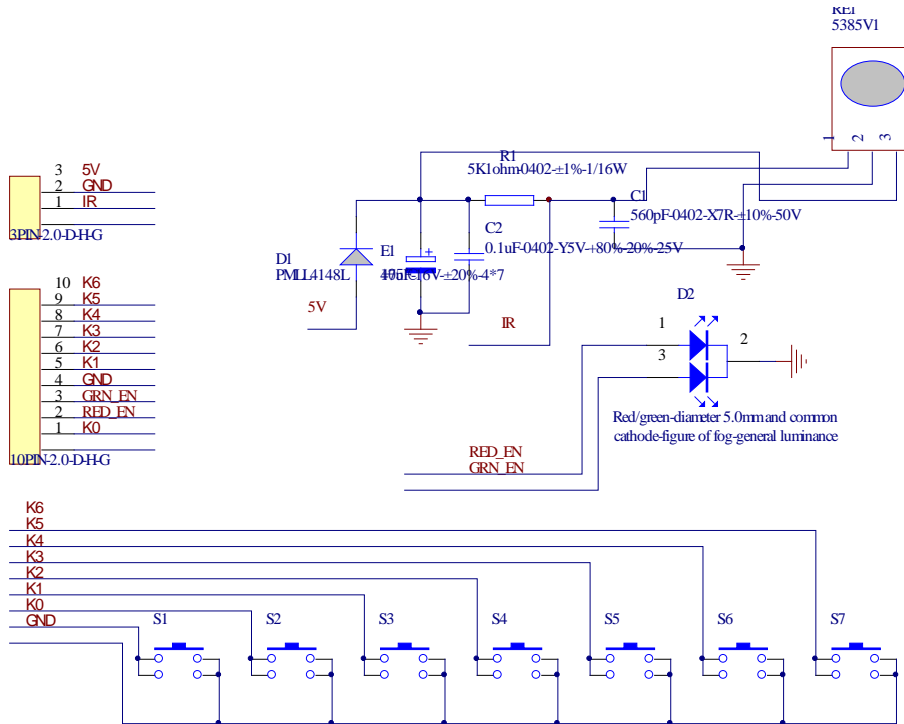
The CN12 and the PC-RGB In cannot be used simultaneously. The same as CN2 and the DC Power Supply In.

4. PCB DIMENSION

The height of NT68674.5A is 17.0mm.



5. IR AND KEY BOARD SCHEMATIC DIAGRAM



6. POWER SUPPLY

Power source	Voltage range	Max. current	Max. ripple & noise	Remark
+12V	12V±10% (Refer to inverter spec)	0.6A	100mVp-p@25°C	NOT INCLUDE INVERTER、 DVD AND LCD PANEL
+12V /+5V	4.9V~5.5V	0.6A	100mVp-p@25°C	
	12V±10% (Refer to inverter spec)	0.4A		

7. INTERFACE DEFINITION

NOTE: The optional connectors are marked with “*”.

◆ CN4(6PIN/2.0): INVERTER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	12V	+12V DC Power Supply
2	12V	
3	BLON	Back-Light ON/OFF Control for Panel
4	ADJ	Brightness Adjustment for Panel
5	GND	Ground
6	GND	

◆ *CN14(3PIN/2.0): IR CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	IR	IR Receiver
2	GND	Ground
3	5V	+5V DC Power Supply

◆ *CN8(6PIN/2.0): DVD POWER SUPPLY CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	D5V	+5V DVD Power Supply
2	D5V	
3	GND	Ground
4	GND	Ground
5	D12	+12V DVD Power Supply
6	DIR	DVD Remote Control Receiver

◆ *CN3 (6PIN/2.0): BUILT-IN POWER SUPPLY CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	PON	Power Supply Standby Control(H=On)
2	5VSB	Power Supply Standby(4.9V~5.5V)
3	5V	+5V Panel Power Supply(4.9V~5.5V)
4	5V	
5	GND	Ground
6	GND	

◆ *CN9(3PIN/2.0): EXTERNAL AUDIO IN CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	LIN	Audio Left Channel Input
2	GND	Ground
3	RIN	Audio Right Channel Input

◆ CN7(10PIN/2.0): KEY BOARD & LED INDICATOR CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	K0	Key 0
2	RED	Red Indicator
3	GRN	Green Indicator
4	GND	Ground
5	K1	Key 1
6	K2	Key 2
7	K3	Key 3
8	K4	Key 4
9	K5	Key 5
10	K6	Key 6

◆ CN15 (4PIN/2.0): SPEAKER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	RO	Audio right output
2	GND	Ground
3	GND	
4	LO	Audio left output

◆ *CN12(12PIN/2.0): EXTERNAL PC-RGB OR DVD_YPBPR IN CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	VS	Vertical Synchronization
3	HS	Horizontal Synchronization
4	GND	Ground
5	R	PC-RGB_R or YPbPr_Pr Signal In
6	GND	Ground
7	G	PC-RGB_G or YPbPr_Y Signal In
8	GND	Ground
9	B	PC-RGB_B or YPbPr_Pb Signal In
10	GND	Ground
11	SDA	DDC DATA
12	SCL	DDC CLOCK

◆ CN13(2x 15PIN/2.0): LVDS PANEL CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	VSEL	Power for panel
2	VSEL	
3	VSEL	
4	GND	Ground
5	GND	
6	GND	
7	RX00-	LVDS ODD 0- Signal
8	RX00+	LVDS ODD 0+ Signal
9	RX01-	LVDS ODD 1- Signal
10	RX01+	LVDS ODD 1+ Signal
11	RX02-	LVDS ODD 2- Signal
12	RX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	RXOC-	LVDS ODD Clock- Signal
16	RXOC+	LVDS ODD Clock+ Signal
17	RX03-	LVDS ODD 3- Signal
18	RX03+	LVDS ODD 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	
27	RXEC-	LVDS EVEN Clock- Signal
28	RXEC+	LVDS EVEN Clock+ Signal
29	RXE3-	LVDS EVEN 3- Signal
30	RXE3+	LVDS EVEN 3+ Signal

8. CONFIGURATION & GENERAL PRECAUTIONS

- **Relative Humidity:** ≤80%
- **Storage Temperature:** -10~+60℃
- **Operation Temperature:** 0~+40℃
- **Keep away from static places and water**
- **Must not be pressed and distorted**
- **Do not disassemble the module.**
- **Protect it away from contacting with metal or other electric substance.**