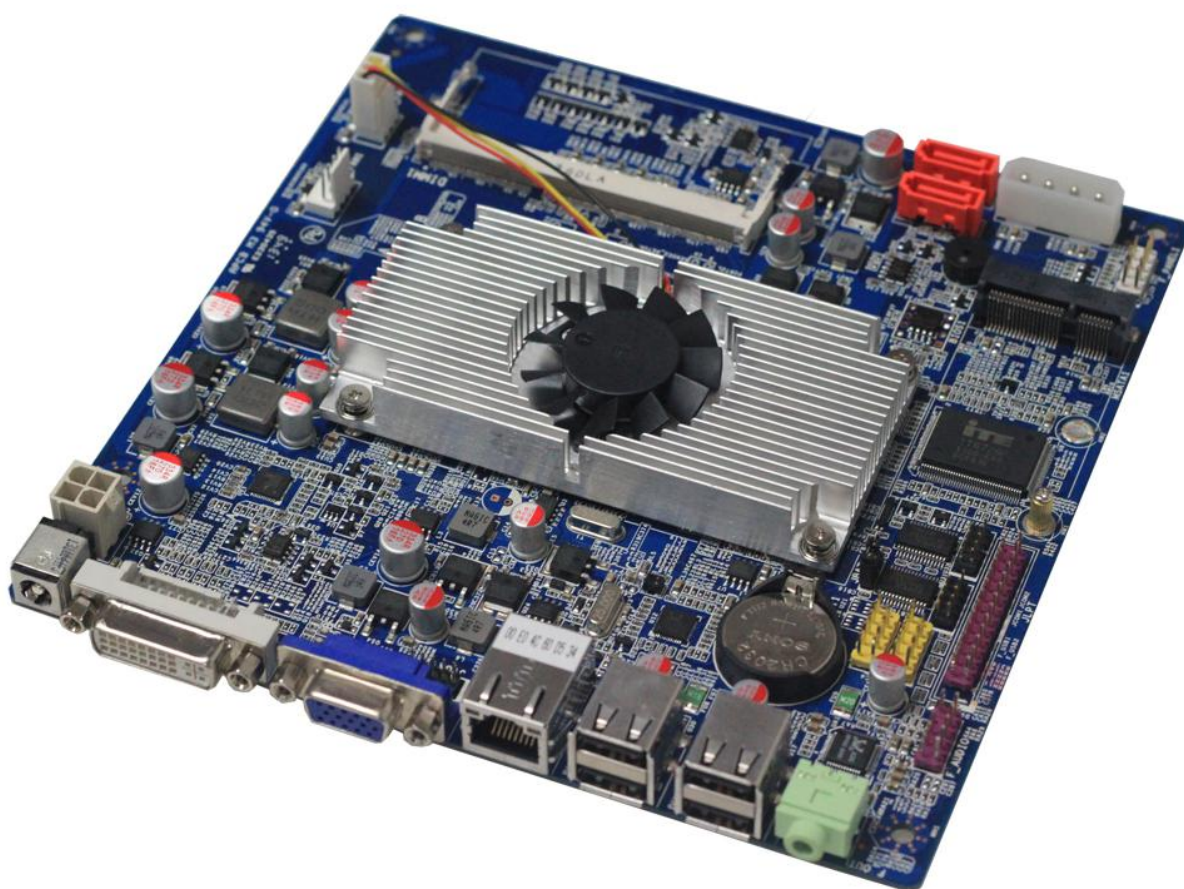


T48E Mainboard

(PCB Rev:0.1)

Manual Version 1.00

2014-01-10



1 Introduction

T48E mainboard is a 3.5" 17x17Mini-ITX low power consumption industrial motherboard, Adopt Hudson E1 A50M chipset, support all Bobcat cpu, the main features as follows:

1.1 Main Feature

- 1.1.1 Adopt Hudson E1 A50M chipset;
- 1.1.2. Support all Bobcat cpu;
- 1.1.3. Onboard 1*204-pin DDRIII SO-DIMM socket, support DDR3 1 3 33/ 1066 M H z memory, maximum up to 4GB;
- 1.1.4. Onboard VGA/DV I socket,Support double screen double function;
- 1.1.5. provide 2*RS232 pin header;
- 1.1.6 support 1*L PT interface, support EPP/SPP/ECP print mode;
- 1.1.6. Onboard 8*USB 2.0 (4 in I/O backboard, 4 external);
- 1.1.7. Onboard 1*M INI- PCIE expansion slot, support MINI SSD;
- 1.1.8 onboard 2*SATA2.0 port;
- 1.1.8. Integrated R e al tek ALC6 6 2 High fidelity audio sound card;
- 1.1.9 . Integrated Realtek 8 111E 1000M network card, support PXEstart and wake on LAN;
- 1.1.10 Integrated AMD Radeon HD 6310 graphics core, clock rate 492MHz, support DIRECTX 11;
- 1.1.11 support 225 grade WatchDog , CMOS can be set up according to the points or by seconds;
- 1.1.12 RTC Wake Up , CMOS can set up time and date.

1.2 Power Supply

Single input DC power,DC12V,+/-5% (if it's not power supply to hard disk by 12V, +/-10%)。 Support AT/ATX power boot mode selection。

1.3 Size

170 x 170 mm

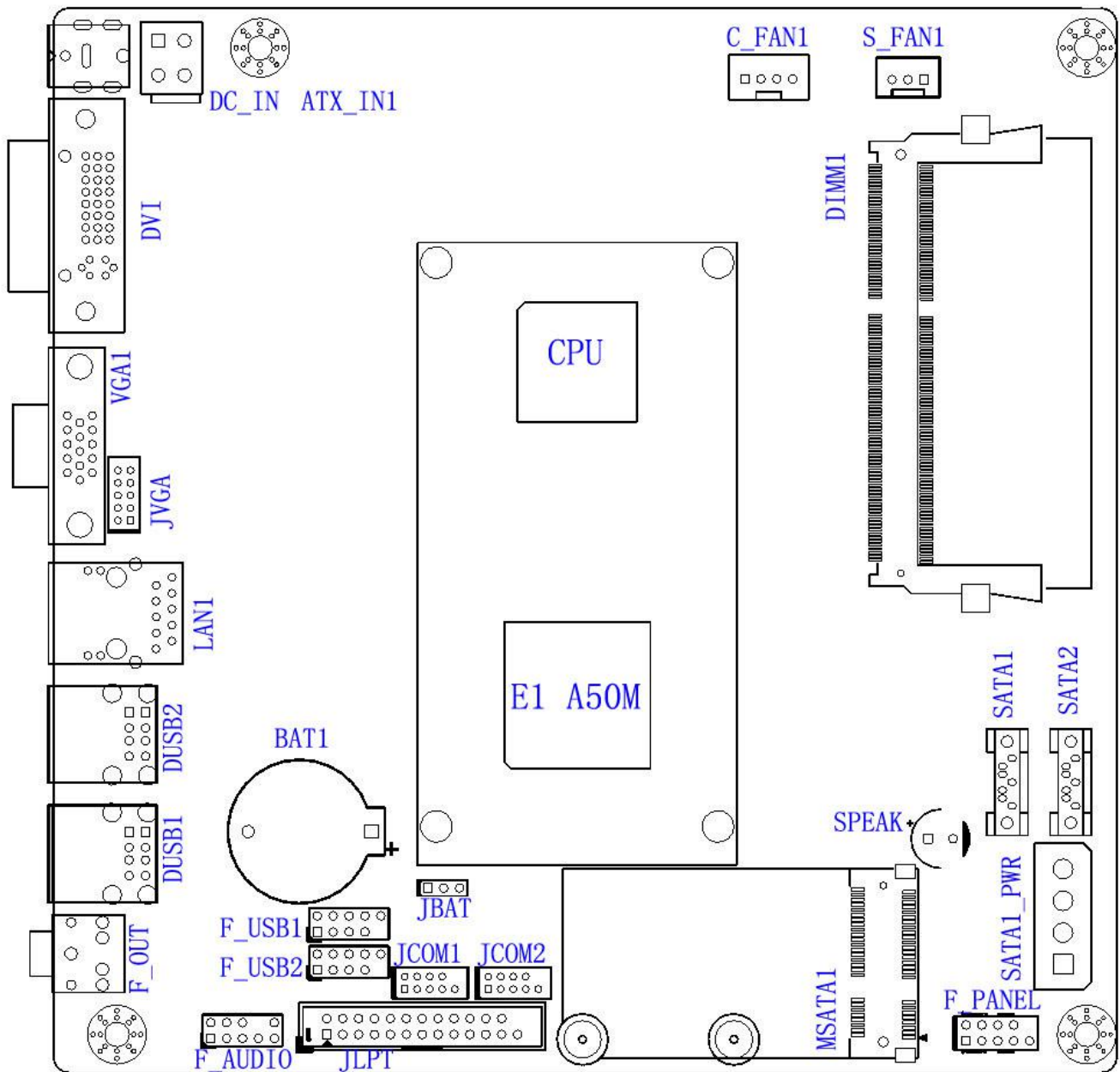
1.4 Working Environment

Working Temp: -20℃ ~ +80℃

Storage Temp: -40℃ ~ +85℃

2 T48E Front side interfaces layout

TOP floor layout as below:



Remark: Interfaces in the above picture, **Pin 1** are in square shape or triangle shape .

2.1 DC_IN 和 ATX_IN1

Motherboard input power connectors, the same application can only choose to plug one input power.

DC_IN adopt DC-JACK interface, Center for the power supply; ATX_IN1 adopt ATX_12V power interface, Define it as follows :

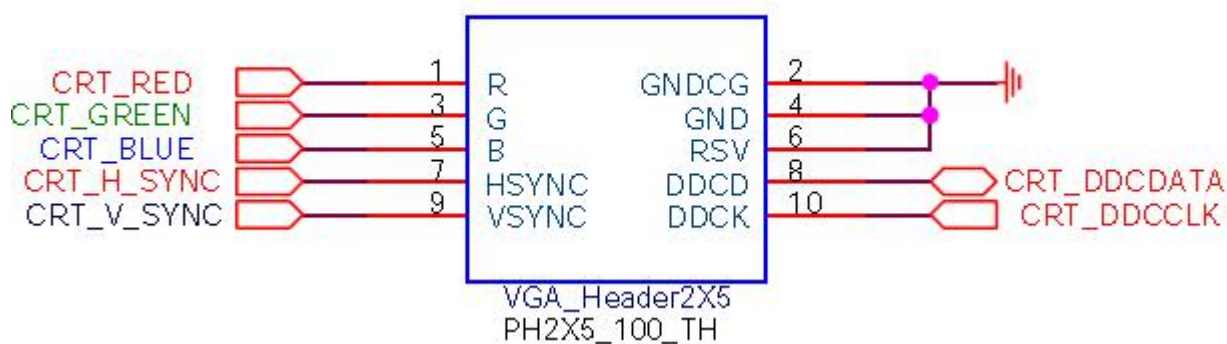
ATX_IN1

GND	GND
+12V	+12V

2.2 VGA1 and JVGA

VGA1 is a standard VGA output connector。

JVGA is 2x5、2.0mm expansion, Define it as follows:



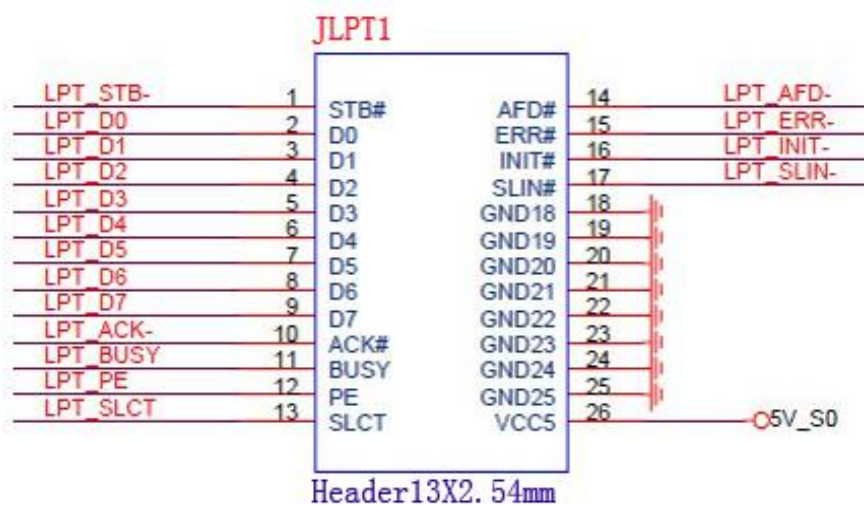
Remark: VGA and JVGA Cannot be used at the same time。

2.3 DVI

DVI is a standard DVI HD output connector。

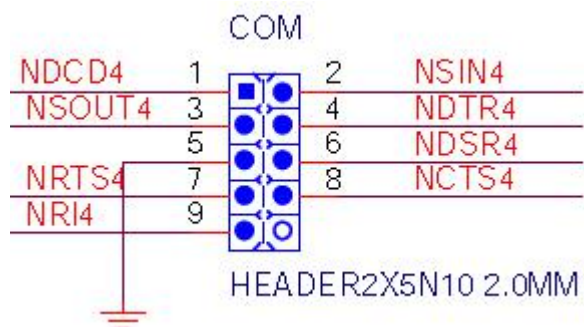
2.4 JLPT

JLPT is 2x13,2.54mm expansion, support EPP/SPP/ECP mode。 Define it as follows:



2.5 JCOM1 and JCOM2

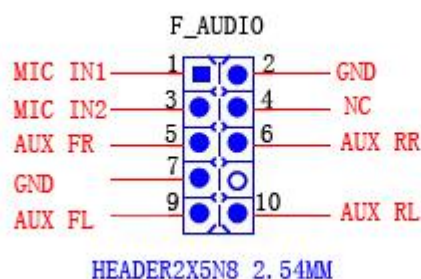
All RSR232 expansion, adopt 2x5、2.0mmPIN。Define it as follows:



2.6 F_OUT and F_AUDIO

F_OUT is standard 3.5mm audio interface, support LINE-OUT audio output。

F_AUDIO is 2x5_2.54mm expansion, Pin1~2 is front panel MIC interface; Pin5~9 Voice for the headphones or speakers on the front panel。 Define it as follows:



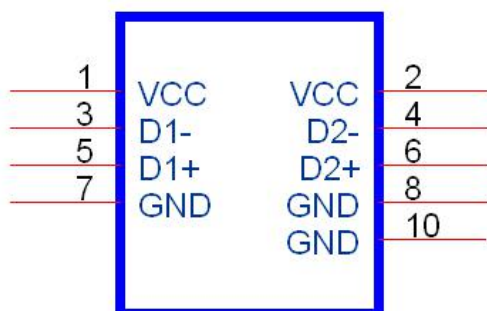
2.7 LAN

Standard RJ45 port, main control chip is Realtek RTL8111E, self-adapting 10/100/1000 M LAN。 Support PXE start and wake on LAN。

2.8 DUSB1 /DUSB2 and F_USB1/F_USB2

DUSB1/DUSB2 is standard USB Type A port;

F_USB1/F_USB2 is 2x5、2.54mm expansion, support USB 1.0/1.1/2.0 device, Define it as follows:



2.9 C_FAN1、S_FAN1

FAN port support maximum electricity is 0.3A, Define it as follows:



CPU_FAN1support smart fan control, support Full on Mode and tandard/Automatic Mode

2.10 SATA1 and SATA2

Standard SATA device interface, support SATA2.0 and below。 Support IDE/AHCI mode。

2.11 MSATA1

Standard Mini-PCIE sim, support Mini-SATA storage card, Due to the industry standard is not clear, This board support defined by most of big companies MINI-SATA card, Specific models,

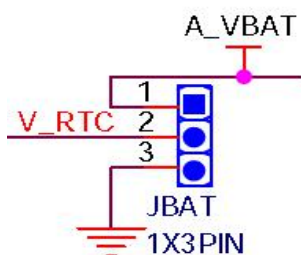
please contact our company's business and the support staff.

2.12 BAT1

BAT1 for the battery holder, Can be directly on the 2032 type battery。

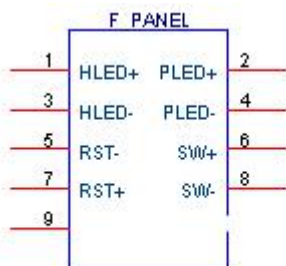
2.13 JBAT

JBAT is 1x3 PIN, Jump line reset Settings。 short circuit 1,2 can remove CMOS, restore factory Settings。 Defines as follows;



2.15 F_PANEL1

The control panel interface, adopt 2x5、2.54mm PIN, integrated HDD_LED、PWR_LED、Boot switch, reset switch。 Pins are defined as follows:



FP1	Pin Definition
1,3	Hard disk access lamp positive and negative signal pins.
2,4	Main power indicator light positive and negative signal pins.
5,7	Mainboard reset positive and negative signal pins.
6,8	Spare buzzer connector.

2.16 DIMM1

204 PIN SODIMM-DDR3 memory socket。 Support DDR3 1 3 33/1066 M H z memory , maximum up to 4GB。

2.17 SATA1_PWR

Reserved 1*SATA device power interface , adopt CJT company A2501WV-4P device or Compatible with other devices。

SATA_P1 defined to be 4-PIN , bring in 12V power supply, For the use of commercial machine hard

disk。 Defines as follows:

