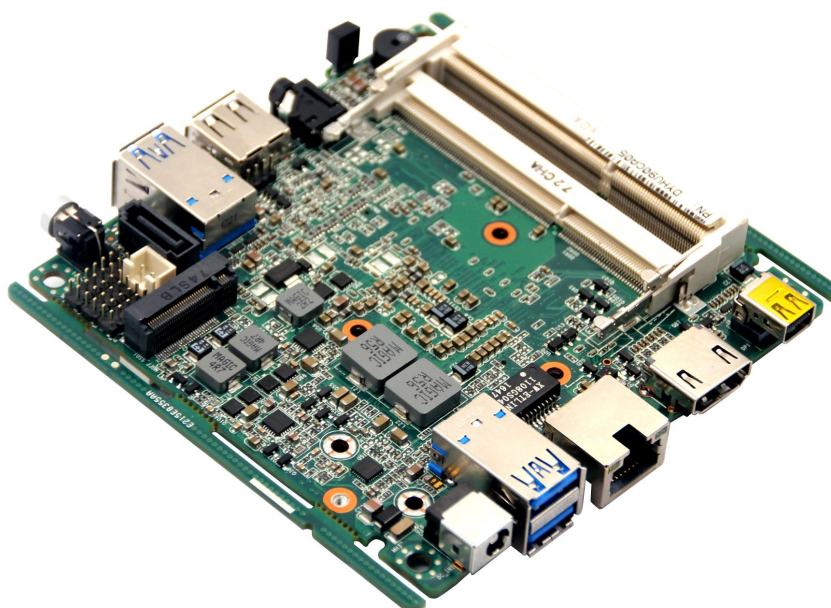


HU80CA Motherboard

(PCB Rev:1.00)

Manual Version 1.00

2017.07.04



1 Introduction

HU80CA is our 10*10 Industrial Motherboard , Adopt Intel 4th Mobile Haswell-Usingle chip CPU.

1.1 Main Features

- 1.1.1 Onboard CPU, Support Intel Mobile 4th Haswell-U/CPU (BGA1168)。
- 1.1.2 2 *DDR3 SODIMM 204 Socket , maximum up to 16GB DDR3L Memory , 1066/1333/1600MHz。
- 1.1.3 Onboard 1*Gigabit Ethernet.
- 1.1.4 Onboard HDA ALC662 , Provide 3.5mm pore size's Phonejack Support MIC/LINE-OUT
- 1.1.5 1*Mini-PCIE socket, and 1*Micro SIM card socket.
- 1.1.6 1*NGFF card socket, Support SATA3.0(Support 42*22mm)
- 1.1.7 Provide 1*Serial port, RS232/TTL pin header.
- 1.1.8 1*SATA 3.0 HDD interface.
- 1.1.9 4*USB 3.0 interface, 3*USB2.0 interface。
- 1.1.10 Support HDMI output, Support 4K Display.
- 1.1.11 Support Mini DP output,Support 4K Display.
- 1.1.12 1*3-Pin FAN interface。
- 1.1.13 1*IR port
- 1.1.14 1*LPC expansion ports

1.2 Power Supply

Single input DC power,Support 12V-19V wide voltage power supply.

Support Power on automatic Starting up, jumper line selection;

1.3 Size

100 x 100 mm

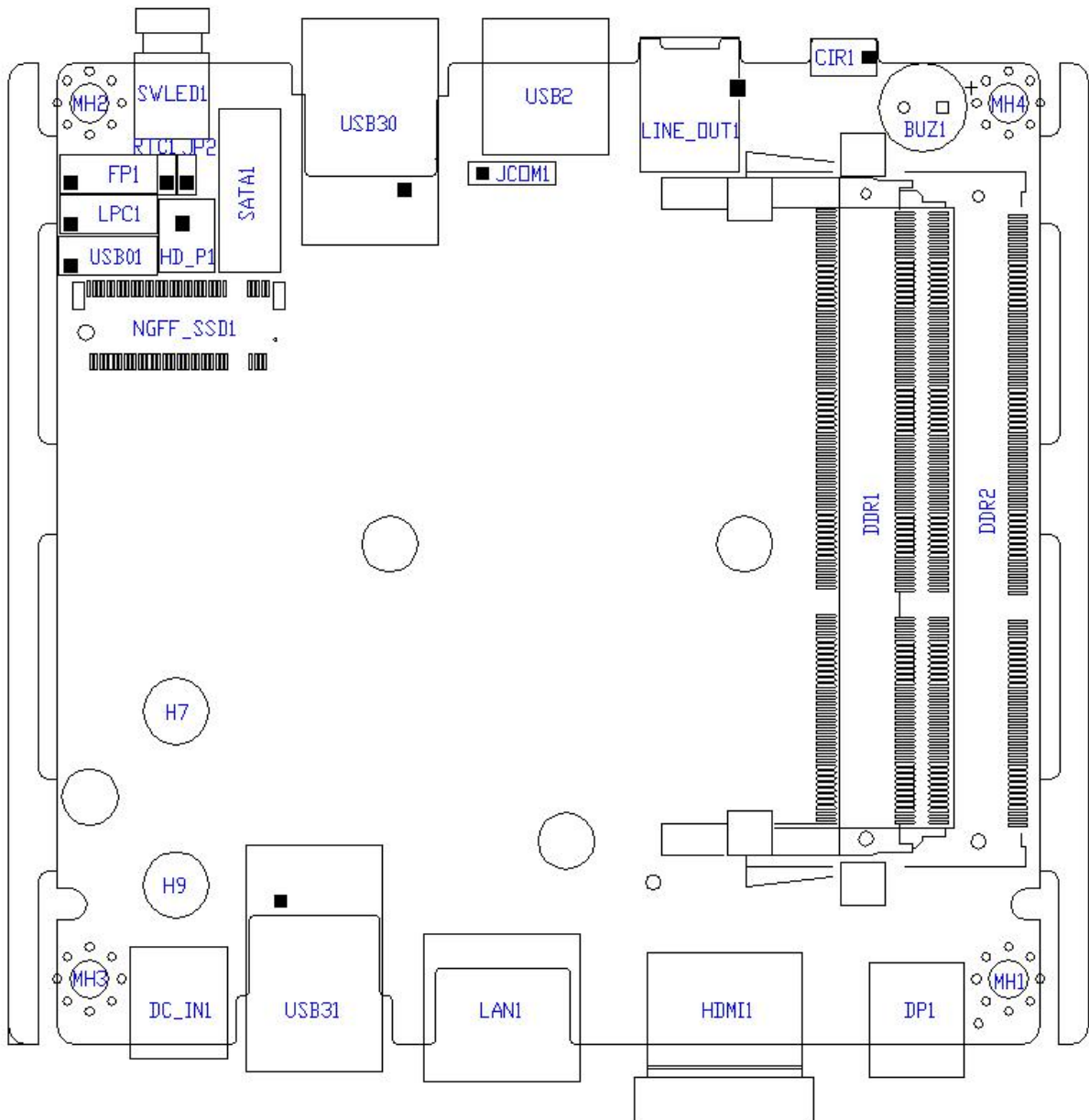
1.4 Working Environment

Working Temp: -20°C~60°C (-32°F~140°F)

Storage Temp: -40°C~85°C (-104°F~185°F)

2 HU80CA Front side interfaces layout

Motherboard TOP floor layout as below:



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

2.1 DC_IN1

DC_IN1 is Standard DC-JACK ports, Central post 2.5mm

2.2 HDMI1

HDMI1 is standard HDMI output interface.

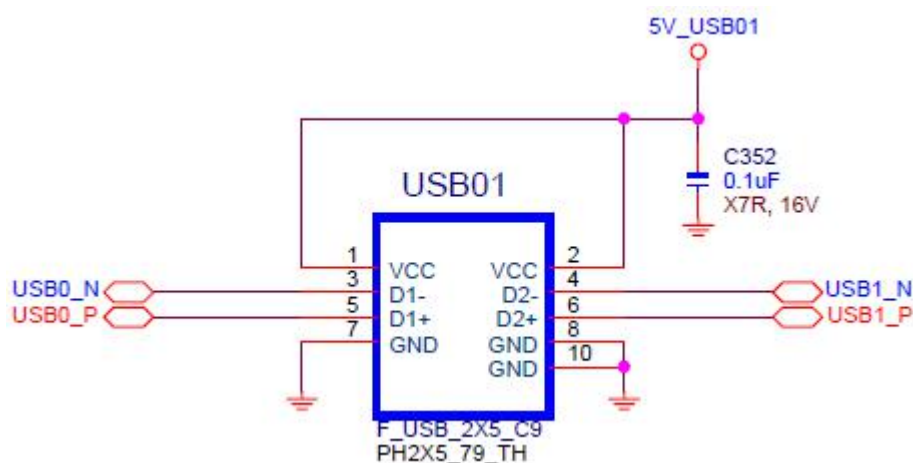
2.3 DP1

DP1 is Mini DPoutput interface.

2.4 USB30, USB31, USB01

4×USB3.0 ports,support 4×USB3.0 devices, it is Compatible with USB 1.0/1.1/2.0 devices.

USB01 is USB2.0, adopt 2x5、2mm pin header, definition as below:

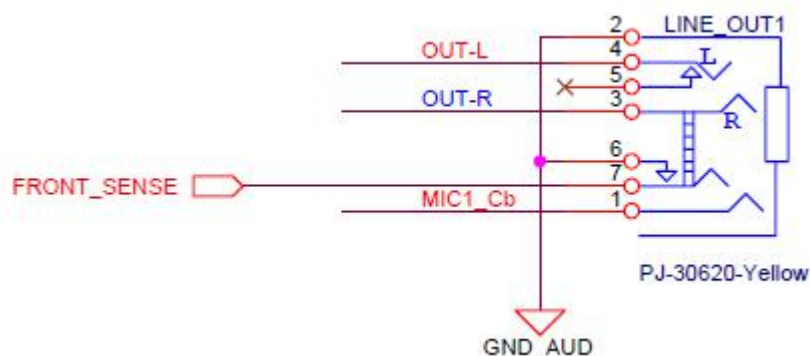


2.5 LAN1

10/100/1000 M LAN is standard RJ45 port,chipset is Realtek RTL8111E.

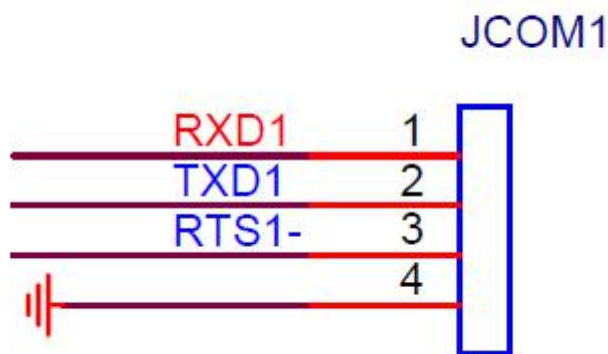
2.6 LINE_OUT1

Adopt 3.5mm pore size's Phonejack Support MIC/LINE-OUT interfaces,According to CTIA International standard design , definition as below:



2.7 JCOM1

RSR232 pin header, adopt 1x4、2mm pin header (can choose serial port,TTL electrical level)

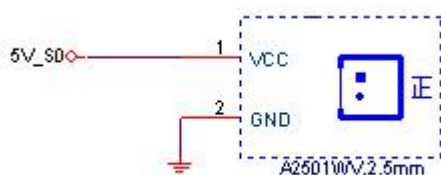


2.8 SATA1

Standard SATA device interface, support SATA3.0 and below。

2.9 HD_P1

1*SATA power interface,adopt CJT A2501WV-2P device or other compatible devices,definition as below:



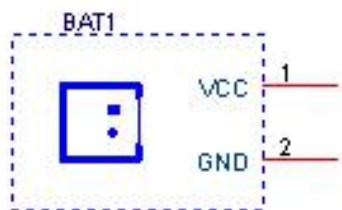
2.10 RTC1

RTC1 is RTC clear jumper line,adopt 1×2,2mm pin,definition as below:

RTC1	Function introduction
Close	Clear RTC CMOS
Open	default setting

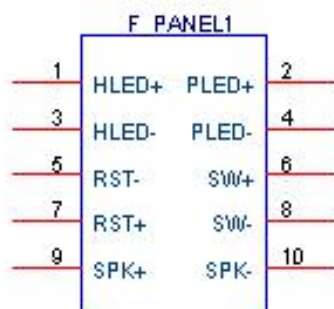
2.11 BAT1

Battery interface,for battery changing.Adopt CJT A1251WV-2P connector or other compatible connector.



2.12 FP1

Control panel interfaces, adopt 2×5, 2mm pin, integrated HDD_LED、PWR_LED、on/off、reset switch、SPEAKER function. Pin definition as below:



F_PANEL1	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	Motherboard reset positive and negative signal pins.
6, 8	Motherboard on/off positive and negative signal pins.
9, 10	Spare buzzer connector.

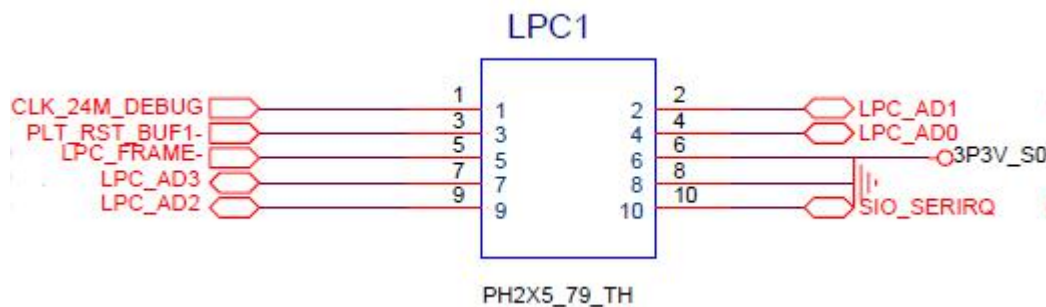
2.13 JP2

AT starting mode jumper line. When you choose “Close”, the DC power plug, then the board electrify at the same time.

PS_ON	Starting Mode Selection
Close	AT power starting mode
Open	ATX power starting mode

2.14 LPC1

LPC pin expansion interface, adopt 2x5、2mm pin header, definition as below:



2.15 MPCIE1

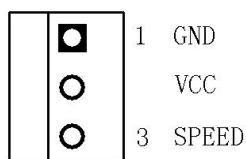
MPCIE1 is standard Mini-PCIE socket,suit for full-size card.The half-size card Mini-PCIE card,must be fixed with a extended card.

2.16 SIM1

Onboard Micro SIM card socket, support 3G/4G Micro SIM card (need on Mini-PCIE card socket use corresponding Module) 。

2.17 CPU_FAN1

FAN interface support 5V Fan,adopt PWM manual,rotational speed adjust automatically,maximum current 0.3A,definition as below:



CPU fan connector,rotational speed adjust automatically.The maximum voltage is the power input voltage.Please choose a suitable fan,when the input voltage is higher.SYS fan does not support adjust automatically.

3 Rear Side Interface Layout

Motherboard rear side layout as below:

