

H81-OPS 用户使用手册 **User Manual**



产品名称 **DESCRIPTION: H81-OPS**

PCB 版本 **PCB_VERSION: V2.0**

声明: **Statement:**

本手册包含的内容并不代表本公司承诺, 本公司保留对此手册更改的权力, 且不另行通知, 对于任何因安装、使用不当而导致的间接、直接、有意或无意的损坏及隐患概不负责。The contents contained in this manual do not represent a commitment on the part of the Company. The Company reserves the right to make changes to this manual without notice, and shall not be liable for any indirect, direct, intentional or unintentional damages and hazards resulting from improper installation or use.

警告提示 **Warning**

为避免电击危险: To avoid the risk of electric shock:

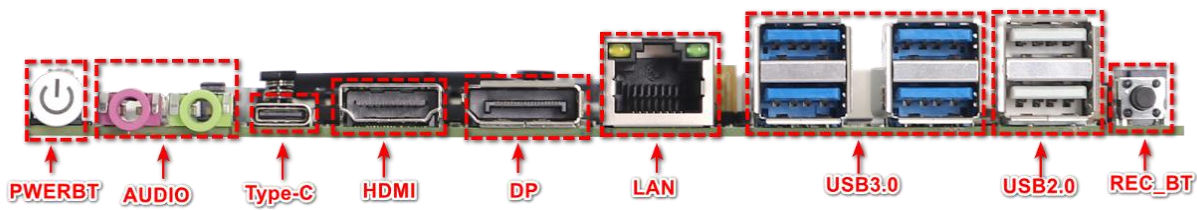
- 请勿在雷暴天气期间连接或断开任何电缆的连接, 安装, 维护或重新配置本产品。 Do not connect or disconnect any cables, install, maintain or reconfigure this product during a thunderstorm.
- 将所有电源线连接正确且采用接地的电源插座。 Connect all power cords properly and use a grounded electrical outlet.
- 将所有要连接到本产品的设备连接到正确连线的插座。 Connect all devices to be connected to this product to properly wired outlets.
- 尽量仅用单手连接或断开信号电缆的连接。 Try to connect or disconnect signal cables with one hand only.

更换系统电池时, 请使用同类电池进行更换。电池含锂, 如果使用、操作或处理不当会发生爆炸。 When replacing the system battery, use a comparable battery for replacement. Batteries contain lithium and can explode if used, handled, or disposed of incorrectly.

I. 详细规格 Details Specifications:

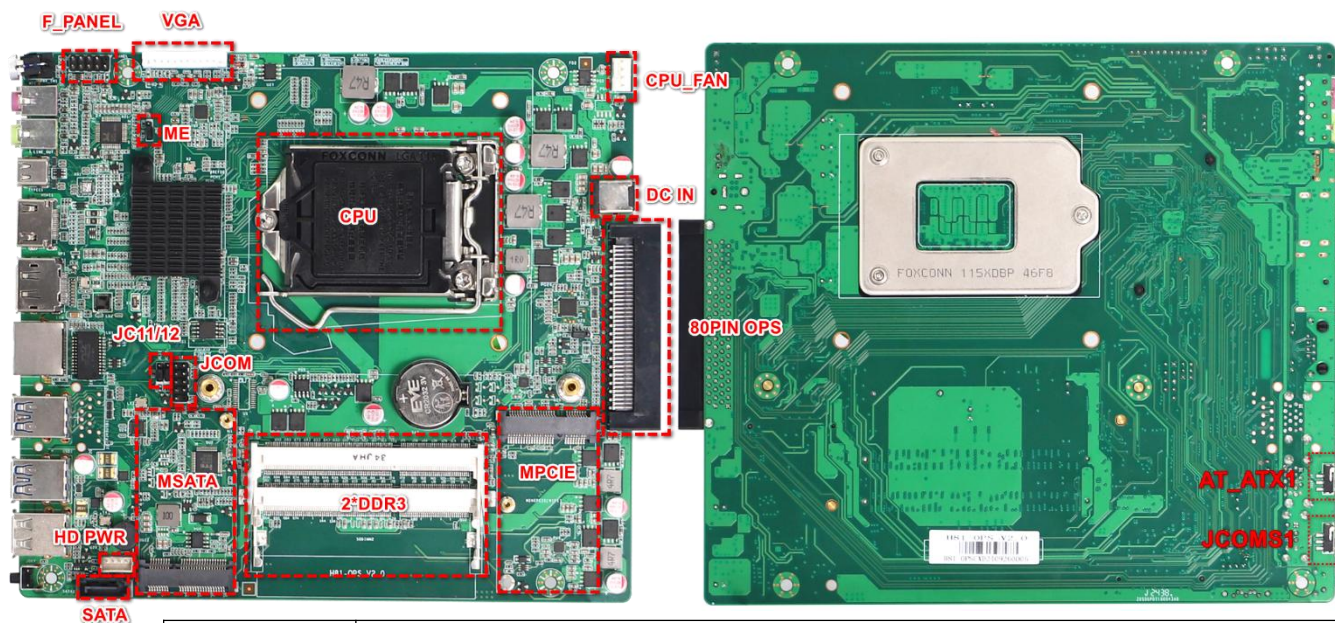
主板型号 MB Model.:	●H81-OPS V2.0
处理器 Processor	●支持 Support Intel® LGA1150 Celeron/ Pentium/ I3/I5/I7 4 代桌面平台 CPU 4 th generation desktop processor
显示芯片 Graphics	●Intel® HD Graphics 核显 Integrated Graphics
显示输出 Display Output	●IO Port: HDMI+DP ●OPS Port: HDMI+DP+VGA ●最大分辨率 HDMI 支持 Max support 4096x2034@60hz ●最大分辨率 DP 支持 Max support 3840x2160@60hz ●最大分辨率 VGA 支持 Max support 1920x1080@60hz
内存 RAM	●2 *SO-DIMM 支持 DDR3 1033/1066MHz MAX: 32G
存储 Storage	●1*MSATA ●1*SATA Support 2.5 寸 inch SATA Support 固态硬盘 SSD/机械硬盘 HDD
扩展槽 Extension	●1*MPCIE slot
音频 Audio	●1*Realtek ACL897 High Definition Audio Driver
网络 Internet	●1*Realtek RLT8111H 千兆网卡[可选双网] Gigabit LAN card [optional dual LAN]
USB	●4*USB3.0 [Gen2 x1 5Gbps]; 2*USB2.0; Type-C 支持 Support USB2.0
I/O 芯片 Chip-set	●IT8772EX
BIOS	●AMI BIOS
供电 Power Input	●DC_JACK 12V/19v
散热系统 Fan	●自带 With CPU FAN [1*CPU_FAN 1x4Pin]
环境 Environment	●工作温度 Working Temperature: 0~60℃ ●存储温度 Storage Temperature: -20℃~75℃ ●湿度 Humidity: 0%~95% 相对湿度, 无冷凝 0%~95% Relative humidity, non-condensing

II. 后置 IO 面板: Rear Panel I/O Ports:



后置 I/O 面板 Real Panel I/O Ports:	●PWERBT: 开关机按钮 Power button
	●AUDIO: [粉色 Pink MIC 绿色 Green Line-IN]
	●Type-C: [USB2.0]
	●HDMI: 支持 Support 4096x2034@60hz
	●DP: 支持 Support 3840x2160@60hz
	●LAN: RJ45 以太网 10/100/1000Mbps Realtek 千兆网卡 Ethernet Gigabit port
	●USB3.0: 4 USB3.0[Gen2*1 MAX: 5Gbps]
	●USB2.0: 2*
	●REC_BT: [一键还原 配合软件使用][One-Click Restore Used in conjunction with software]

III. 内置接口：Inner Interfaces:



F_PANEL	● F_PANEL 插针 Pin Pitch2.54mm
VGA	● 1x12Pin Wafer Pitch2.0mm
JME	● ME 更新 upgrade
CPU_FAN	● 1x4Pin Wafer CPU_FAN Connector
DC_IN	● DC 供电 Power input: 12V/19V
JCOM	● 2x5:9Pin Header RS232
JC12/JC11	● TTL&232 切换 Switch
MSATA	● SSD Mini 固态硬盘接口 Solid hard disk socket
MPCIE	● MPCIE 扩展槽 extension socket
SATA	● SATA3.0
HD_PWR	● SATA 供电 Power supply
OPS Port	● JATEX25-80Pin 开放式可拔插 open plug-gable slot
CPU	● 支持 Support LGA1150 赛扬 Celeron /奔腾 Pentium /I3/I5/I7 4 代桌面平台 CPU 4 th generation desktop processor
SO-DIMM	● 2 *SO-DIMM 支持 DDR3 1033/1066MHz MAX: 32G
AT_ATX1	● 1x3Pin Header JMP, 默认 Default 1-2=关闭通电自启 Turn off power-on self-start; 切换 Switch2-3=开启通电自启 Turn on power-on self-start
JCOMS1	● 1x3Pin Header [JMP 默认 Default 1-2 切换 Switch 2-3=CLR_CMOS]

IV. OPS Port JATEX25-80Pin 集成功能 integrated function:

DP	● 1*DP Display Port
HDMI	● 1*HDMI Display Port
USB3.2	● 4*USB3.2 Gen2
USB2.0	● 2*USB2.0
SYS_FAN_TACH	● 系统风扇控制 System Fan Control
UART	● UART3.3V 输出 output TX RX
PS_ON#	● 可拔插信号开启输入 Pluggable signal on input
STATUS	● 电源正常 输出 (oc) 检测 Power supply normal Output (oc) detection

OPS Port JATEX25-80Pin Definition

80 PIN OPS 端子, 内部包含 HDMI 信号, 音频信号, 串口信号, 开关机信号, 状态检测信号等。具体定义如下:

80Pin OPS terminal, which contains HDMI signal, audio signal, serial port signal, switching signal, status detection signal and so on internally. Specific definitions are as follows:

PIN	定义	PIN	定义	PIN	定义	PIN	定义
1	DP_3N	21	HDMI_TX0_DP	41		61	USB_DP1
2	DP_3P	22	GND	42		62	GND
3	GND	23	HDMI_TX1_DN	43		63	USB_DN2
4	DP_2N	24	HDMI_TX1_DP	44		64	USB_DP2
5	DP_2P	25	GND	45		65	GND
6	GND	26	HDMI_TX2_DN	46		66	USB_DN3
7	DP_1N	27	HDMI_TX2_DP	47		67	USB_DP3
8	DP_1P	28	GND	48		68	GND
9	GND	29	HDMI_SDA	49		69	AUDIO_L
10	DP_ON	30	HDMI_SCL	50	SYS_FAN	70	AUDIO_R
11	DP_OP	31	HDMI_HPD	51	UART_RX	71	CEC
12	GND	32	GND	52	UART_TX	72	PB_DET
13	DP_AUXN	33	VDD	53	GND	73	PS_ON
14	DP_AUXP	34	VDD	54	USB3_RXN	74	STATUS
15	DP_HPD	35	VDD	55	USB3_RXP	75	GND
16	GND	36	VDD	56	GND	76	GND
17	HDMI_CLK_DN	37	VDD	57	USB3_TXN	77	GND
18	HDMI_CLK_DP	38	VDD	58	USB3_TXP	78	GND
19	GND	39	VDD	59	GND	79	GND
20	HDMI_TX0_DN	40	VDD	60	USB_DN1	80	GND

BIOS 功能介绍 BIOS Function Introduction

1.1 BIOS 解释说明 BIOS Explanation

本主板使用AMI BIOS, BIOS全称为Basic Input Output System(基本输入 输出系统) 。它是存储在电脑主板上的一块ROM (Read-Only Memory)芯片中。当您开启电脑时, BIOS是最先运行的程序, 它主要有以下几项功能: This motherboard uses AMI BIOS, BIOS is called Basic Input Output System (BIOS). It is stored in a ROM (Read-Only Memory) chip on the motherboard of your computer. When you turn on your computer, BIOS is the first program to run, and it has the following main functions:

- a. 对您的电脑进行初始化和检测硬件, 这个过程叫POST (PowerOn SelfTest)。 Initialize your computer and test the hardware, this process is called POST (PowerOn SelfTest).
- b. 加载并运行您的操作系统。 Load and run your operating system.
为您的电脑硬件提供最底层、最基本的控制。 Provides the lowest, most basic level of control over your computer hardware.
- c.
- d. 通过SETUP管理您的电脑。 Manage your computer through SETUP.

被修改的BIOS资料会被存在一个以电池维持的CMOS RAM中, 在电源切断时 所存的资料不会被丢失。一般情况下, 系统运行正常时, 无需修改BIOS。如果 由于其他原因导致CMOS资料丢失时, 须重新设定BIOS值。 The modified BIOS data is stored in a battery-operated CMOS RAM and will not be lost when the power is turned off. Normally, no BIOS modification is necessary when the system is running normally, but if the CMOS data is lost for other reasons, the BIOS values must be reset.

1.2 BIOS 设定 BIOS Setup

本章提供了BIOS Setup程序的信息, 让用户可以自己配置优化系统设置。 BIOS中一些未做过多说明的项目, 属于非常用项目, 在未完全了解其功能之前建议保持默认设置, 不要随意更改,如下情形您需要运行SETUP程序: This chapter provides information about the BIOS Setup program, which allows users to configure and optimize the system settings themselves. Some of the items in the BIOS that are not described in detail are non-useful, and it is recommended that you keep the default settings and do not change them before you fully understand their functions. You need to run the SETUP program in the following cases:

- a. 系统自检时屏幕上出现错误信息, 并要求进入SETUP程序: An error message appears on the screen during the self-test of the system and asks you to enter the SETUP program;
- b. 您想根据客户特征更改出厂时的默认设置。 You would like to change the factory default settings according to the customers' characteristics.

 注意: 由于主板的BIOS版本在不断的升级, 所以本手册中有关BIOS的描述仅供参考。我们 不保证本说明书中的相关内容与您所获得的信息的一致性。 Note: Since the BIOS version of the motherboard is constantly being upgraded, the description of the BIOS in this manual is for reference only. We do not guarantee the consistency of the relevant content in this manual with the information you have obtained.

1.3 进入 BIOS 定程序 Entering the BIOS Setup Program

打开电源或重新启动系统，在自检画面可看到如下信息，按键即可进入 BIOS设定程序F
Turn on the power or reboot the system, you will see the following message in the self-test screen, press to enter the BIOS setup programF

控制键 Keys	功能描述 function introduction
→/←	移动左右箭头选择屏幕 Choose to move left or right
↑/↓	移动上下箭头选择上下项目 Choose to move up or down
+/-	增加/减少数值或改变选择项 Changing the setting status or the value of a key
<Enter>	选定此选项，进入子菜单 Select this option to enter the submenu
<ESC>	返回主画面，或由主画面中结束CMOS SETUP程序 Return to the main screen, or end the CMOS SETUP program from the main screen.
<F1>	显示相关辅助说明 Display the related auxiliary instructions
<F2>	放弃设定的值 Discard the set value
<F9>	载入最优化值的设定 Load optimized settings
<F10>	保存改变后的CMOS设定值并重启 Save the changed CMOS settings and reboot.
<F11>	快捷启动项 Quick startup items

警告：在居住环境中，运行此设备可能会造成无线电干扰。

天线端口的连接线缆小于等于 3m。

WARNING: Operating this device in a residential environment may cause radio interference.

The connecting cable for the antenna port is less than or equal to 3m