# ChangWang Motherboard User's Manual用户手册

# CW-X86-P5 V1.0 Series

Ver1.0





www.changwang.com

# 安全指导

#### 版权声明

©2022年,畅网科技有限公司,版权所有。 本使用手册所提及的商标与名称,均属其合法注册的公司所有。

#### 责任声明

本使用手册受著作权保护,所撰写的内容均为畅网科技所拥有。

本使用手册所提及的产品规格或相关信息,畅网科技有限公司保留修改的权利。

本使用手册所提及的产品规格或相关信息有任何修改或变更时, 恕不另行通知。

未事先经由畅网科技书面允许,不得以任何形式复制、修改、转载、传播或出版本使用手册内容

。■ 为了协助您使用畅网主板,请仔细阅读【使用手册】。

产品相关信息,请到网站查询: http://www.changwang.com. 务必请仔细通读本安全指导.

产品版本辨识

您可在主板上找到标示着此主板的版本[VER:X.X]。其中 X.X 为数字,例如标示[VER:1.1],意即此主板的版本为 1.1。当您要更新主板的 BIOS、驱动程序或参考其他技术资料时,请注意产品版本的标示。 安全使用小常识

- 1、在使用本产品前,请您务必仔细阅读产品说明书;
- 2、对未准备安装的板卡,应将其保存在防静电保护袋中;
- 3、在从防静电保护袋中拿出板卡前,应先将手置于接地金属物体上一会儿(比如 10 秒钟),以释放 身体及手中的静电;
- 4、在拿板卡时,需佩戴静电保护手套,并且应该养成只触及其边缘部分的习惯;
- 5、为避免人体被电击或产品被损坏,在对板卡进行拔插或重新配置时,须先关断交流电源;
- 6、在需对板卡或整机进行搬动前,须先关断交流电源;
- 7、对整机产品,需增加或减少板卡时,务必先关断交流电源;
- 8、当您需连接或拔除任何设备前,须先关断交流电源;
- 9、为避免频繁开关机对产品造成不必要的损伤,关机后,应至少等待 30 秒后再开机。

Revision History				
Revision	Date	Description	Author	
V1.0	2023-07-11	初版发行		

安全指导	2
第1章、简介	5
1.1、包装清单	5
1.2、主板规格	6
1.3、主板布局结构图	7
1.3.1、后置 IO 接口	7
第2章、主板安装	9
2.1、内存安装	9
2.2、跳线说明	10
2.3、各插针及跳线设置;	10
1.GPIO 插针	10
2.内置串口:COM1	10
3.内置 USB 接口: F_USB1、F_USB2	10
4.自动上电跳针:AUTO_ON	11
5.CMOS 清除选择跳针:CLR_CMOS	11
6.内置 SATA 转接 FPC 座:JFPC1/2	11
7.TPM 插针接口:TPM_S	11
8.ME 刷写跳针:JME	11
9.CPU 散热风扇电源插座:CPU_FAN	12
10.系统散热风扇电源插座:SYS_FAN	12
第3章、BIOS设置	13
3.1、BIOS 说明	13
3.2、BIOS 设定	13
3.2.1、主菜单信息(Main)	14
3.2.2、高级 BIOS 功能设置(Advanced)	14
3.2.3、链接配置信息(Connectivity Configuration)	15
3.2.4、CPU 配置信息(CPU Configuration)	15
3.2.5、电源与性能(Power & Performance)	16
3.2.6、集成南桥固件配置(PCH-FW Configuration)	17
3.2.7、温度控制信息(Thermal Configuration)	
3.2.8、TM 配置信息(Thunderbolt(TM) Configuration)	
3.2.9、可信计算(Trusted Computing)	19
3.2.10、电源管理配置(ACPI Settings)	19
3.2.11、I/O 串口设置(Super IO Configuration)	20
3.2.12、硬件监控(Hardware Monitor)	20
3.2.13、USB 配置信息(USB Configuration)	21
3.2.14、网络堆栈配置工具(Network Stack Configuration)	22
3.2.15、兼容支持模块(CSM Configuration)	22
3.2.16、NVME 配置信息(NVME Configuration)	23
3.2.17、自动开机设置(S5 RTC Wake Settings)	23
3.2.18、芯片组设置信息(Chipset)	24
3.2.19、系统代理设定(System Agent(SA)Configuration)	24



3.2.20、	PCH-IO 配置信息 (PCH-IO Configuration)	
3.2.21、	安全设置(Security)	
3.2.22、	启动设置(Boot)	
3.2.23、	保存退出(Save&Exit)	

# 第1章、简介

#### 1.1、包装清单

感谢您给予信任选购本公司产品,在您收到产品时,请确保产品外包装完好,如有外观破损或配件缺少的情况请 与您的经销商联系

- CW-ADLNT-1C2L V1.0 主板 x 1
- 线材板卡等配件(依订单不同,如有需求请与业务联系)
- 质保卡
- 合格证
- \* 上述附带配件仅供参考, 实际配件请以实物为准, 畅网科技保留修改的权利。
- \* 由于主板规格和BIOS软件将不断更新,本手册之相关内容变更 恕不另行通知,一切仅供参考,请以实际为准或留意网上 公布的升级版本

# Block Diagram



# 1.2、主板规格

主板尺寸	- 90mm X 90mm
中央处理器	- Intel® Alder Lake-N 处理器
内存	- 板载 1 条 260 Pin DDR5 SO-DIMM 内存槽 - 单根内存最高支持 16GB
扩展插槽	- 1*M.2 E Key(支持 WIFI/蓝牙模块扩展)
背板接口	- 1 x DCIN 接口 - 1 x LAN1+LAN2 接口 - 2 x USB3.2 Gen2 接口(10Gbps) - 2 x HDMI 双层座 - 1 x PWR_ON 按键
内置接口	- 1 x COM 插针 - 1 x TPM 插针 - 2 x JUSB 插针 (可扩展 4*USB2.0) - 1 x GPIO 插针 - 2 x JFPC 插针 - 1 x CPU_FAN 插针 - 1 x SYS FAN 插针
BIOS	- AMI BIOS
电源管理	- 支持高级电源管理 ACPI - 支持网络唤醒 S3、S4、S5,支持上电开机等
显示	- 支持 HDMI
背光调节	/
网络	-2 x Intel I226-V 千兆以太网
音频	/
I/O 芯片	- ITE8613E-I
供电	- DC 12V 供电
工作环境	- 工作温度: 0℃~60℃ - 环境湿度: 0%~95%
操作系统	Windows 10 / Windows 11/Linux

# 1.3、主板布局结构图



	Ltem	描述
1	GPIO	GPIO 插针
2	JCOM1	内置串口插针
3	F_USB1/2	内置 USB 插针
4	AUTO_ON	自动上电选择跳针
5	CLR_CMOS	CMOS 清除选择跳针
6	JFPC1/2	SATA 转接线插座
7	JTPM_S	TPM 插针
8	JME	ME 刷写跳针
9	CPU_FAN	CPU 散热风扇插座
10	SYS_FAN	系统散热风扇
11	WIFI1	M.2 E Key 插槽
12	M2_SSD	M.2 M Key 插槽
13	SODIMM1	SO-DIMM DDR4 内存槽

# 1.3.1、后置 IO 接口



Item	描述
DCIN	供电插座 12V
	Link LED:绿色长亮,表示网络已连接
LAINT	Active LED:橙色闪烁,表示数据传输

	Link LED:绿色长亮,表示网络已连接
LAINZ	Active LED:橙色闪烁,表示数据传输
USB1	2*USB3.2 Gen 1 速率(5Gbps)
2*HDMI	高清数字信号输出显示
PWR_ON	开关按键

# 第2章、主板安装

#### ▲安全注意:

- 安装前请勿任意撕毁主板上的序列号及代理商保修贴纸等,否则会影响到产品保修期限的认定标准。
- 要安装或移除主板以及其他硬件设备之前请务必先闭电源,并且将电源线处插座中拔除。
- 安装其他硬件设备至主板内的插座时,请确认接头和插座已紧密结合。
- 拿取主板时请尽量不要触碰金属接线部份以避免线路发生短路。
- 拿取主板、中央处理器(CPU)或内存条时,最好戴上防静电手环。若无防静电手环,请确保双手干燥,并先碰触金属物以消除静电。
- 主板在未安装之前,请先置放在防静电垫或防静电袋内。
- 当您要拔除主板电源插座上的插头时,请确认电源供应器是关闭的。
- 在开启电源前请确定电源供应器的电压值是设定在所在窗口的电压标准值。
- 在开启电源前请 确定所有硬件设备的排线及电源线都已正确地连接。
- 请勿让螺丝接触到主板上的线路或零件,避免造成主板损坏或故障。
- 请确定没有遗留螺丝或金属制品在主板上或电脑机箱内。
- 请勿将电脑主机放置在不平稳处。
- 请勿将电脑主机放置在温度过高的环境中。
- 在安装时若开启电源可能会造成主板、其他设备或您自己本身的伤害。
- 如果您对执行安装不熟悉,或使用本产品发生任何技术性问题时,请咨询专业技术人员。

#### 2.1、内存安装

该主板提供1根260-pin DDR5 SO-DIMM 内存插槽。 在开始安装内存前,请注意以下信息:

- 1、请先确认您所购买的内存适用本主板所支持的规格。
- 2、在安装或移除内存之前,请先确定电脑的电源已经关闭以免造成损毁。
- 内存设计有防呆标示,若您插入方向错误,内存就无法插入,此时请立刻更改插入方向。
   安装内存:
- 1、在安装或移除内存之前请先关掉电源,并且拨下 AC 电源线。
- 2、小心握住内存条的两端,不要触碰到上面的金属接点。
- 3、将内存条的金手指对齐内存条插槽,并且在方向上要注意金手指凹孔对上插槽的凸起点;
- 4、将内存条斜 30 度插入内存槽处,然后将内存条往下压,压至可以听到"咔"的声响,说明内存已安装成功,可以使 用。(注意:将内存条下压的力度,不可过大,以免损坏内存)

5、要移除内存条,请将 DIMM 插槽两端的卡榫同时向外推,然后拿出内存条。 安装图示仅供参考:



# 2.2、跳线说明

2针脚的接头:将跳线帽插入两个针脚将使其关闭(短路)。 3针脚的接头:跳线帽可插入针脚1~2或针脚2~3使其关闭(短路)。



怎么辨认跳线的第1脚位置?

1、请仔细查看主板,凡有标明"1"或是有白色粗线标记的接脚即为1脚位置。

2、观看背板的焊盘,通常方型焊盘为第一脚。

#### 2.3、各插针及跳线设置;

#### 1.GPIO 插针

主板提供1个2\*5pin GPIO 插针(脚距: 2.00mm), 管脚定义如下:

图形	管脚	定义	管脚	定义
	1	GPIO134	2	GPIO138
9 1	3	GPIO135	4	GPIO139
	5	GPIO136	6	GPIO140
10 2	7	GPIO137	8	GPIO141
	9	GND	10	+5V

#### 2.内置串口: COM1

主板提供1个2\*5Pin COM 插针(脚距: 2.00mm), 管脚定义如下:

图形	管脚	定义	管脚	定义
	1	DCD	2	RXD
2	3	TXD	4	DTR
	5	GND	6	DSR
1 9	7	RTS	8	CTS
	9	RI	10	NC

#### 3.内置 USB 接口: F\_USB1、F\_USB2

主板提供 2 个 2\*5pin (N9) 内置 USB 接口 (脚距: 2.54mm), 管脚定义如下:

图形	管脚	定义	管脚	定义
	1	VCC +5V	2	VCC +5V
1 00 2	3	USB1 Date-	4	USB2 Date-
10	5	USB1 Date+	6	USB2 Date+
	7	GND	8	GND

9	/	10	NC
---	---	----	----

#### 4.自动上电跳针:AUTO\_ON

主板提供1个1\*3pin 自动上电跳针 (脚距: 2.00mm), 跳针定义如下:

图形	管脚	定义
3 © 1	1-2	NORMAL
	2-3 (Default)	AUTO_ON

#### 5.CMOS 清除选择跳针: CLR\_CMOS

主板提供 1 个 1\*3pin CMOS 清除跳针 (脚距: 2.00mm), 跳针定义如下:

图形	管脚	定义
1 0 3	1-2 (Default)	NORMAL
	2-3	CLR_CMOS

#### 6.内置 SATA 转接 FPC 座: JFPC1/2

主板提供 2 个 1\*12 Pin JFPC SATA 转接插针接口(脚距: 0.8mm),管脚定义如下:

图形	管脚	定义	管脚	定义
1 [000000000] 12	1	GND	2	SATA_TXP
	3	SATA_TXN	4	GND
	5	SATA_RXN	6	SATA_RXP
	7	GND	8	+5V_S0
	9	+5V_S0	10	+5V_S0
	11	GND	12	GND

#### 7.TPM 插针接口: TPM\_S

主板提供1个2\*7pin TPM 插针(脚距: 2.00mm), 管脚定义如下:

图形	管脚	定义	管脚	定义
	1	VCCSPI	2	S_SPI_TPM_IRQ#
	3	S_PLTRST#	4	S_SPI_TPM_ CS2#
	5	F2_SPI_CS1#_R	6	F_BIOS_WP#_R
	7	+3V_SPI	8	GND
	9	F_SPI_CS0#_R	10	T_SPI_CLK
	11	T_SPI_MISO	12	T_SPI_MOSI
	13	F_SPI_HOLD#_R	/	/

#### 8.ME 刷写跳针: JME

主板提供1个1\*3pin ME刷写跳针 (脚距: 2.00mm), 跳针定义如下:

图形	管脚	定义
1 0 3	1-2 (Default)	NORMAL
	2-3	OVERRIDE

#### 9.CPU 散热风扇电源插座: CPU\_FAN

主板提供1个1\*4pin (CPU\_FAN) 散热风扇接口 (脚距: 1.25mm), 管脚定义如下:

图形	管脚	定义
4	1	Ground
5	2	+12V
ů.	3	Sense
1	4	Control

#### 10.系统散热风扇电源插座: SYS\_FAN

主板提供1个1\*4pin (SYS\_FAN) 散热风扇接口 (脚距: 1.25mm), 管脚定义如下:

图形	管脚	定义
4	1	Ground
	2	+12V
ů	3	Sense
1	4	Control

# 第3章、BIOS 设置

#### 3.1、BIOS 说明

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:

A、上电自检(Power On Self Test, 简称POST), 功能是检查电脑是否良好。

- B、对一些外部设备进行初始化和检测并加载运行您的操作系统。
- C、为您的电脑硬件提供最底层、最基本的控制。
- D、通过BIOS中SETUP管理您的电脑。

BIOS 资料保存在主板上的一块 CMOSRO RAM 芯片中,以 3.3V 纽扣电池维持,里面装有系统的重要信息和设置系统参数的设置程序——BIOS Setup 程序。系统正常运行时,BIOS 无需修改,当由于其他原因导致 CMOS 资料 丢失时则需重新设定 BIOS。

注:

BIOS 设置不当会直接损坏计算机的硬件,甚至烧毁主板,建议不熟悉者慎重修改设置。

由于主板中 BIOS 不断升级,本说明书中相关 BIOS 信息仅做参考,故不保证此说明书中 BIOS 信息与主板实际 BIOS 中信息的一致性

#### 3.2、BIOS 设定

当主板接通电源开机或重启系统时,显示屏在 Post 界面时会出现如下提示,按 DEL 进入 BIOS Setup

American Megatrends			
Version 2 .	9 .1268 . Copyright © 2018 American Megatrends,Inc		
Mode:	BIOS Date : 10/29/2019 16:17:14		
Press < DEL > or < ESC> to enter setup.			

您可以用上下左右键移动选项,按<Enter>键进行选择,用Page Up和Page Down改变选项。按<F1>键寻求帮助,按<Esc>键退出。详细介绍请见下表。

控制键	功能描述	
$\leftarrow$ / $\rightarrow$	移动左右箭头选择屏幕	
1/↓	移动上下箭头选择上下项目	
+/ -	增加/减少数值或改变选择项	
<enter></enter>	选定此选项,进入子菜单	
<esc></esc>	返回主画面,或由主画面中结束CMOS SETUP程序	
<f1></f1>	显示相关辅助说明	
<f2></f2>	恢复之前设定值	
<f9></f9>	载入最优化值的设定(BIOS初始值)	
<f10></f10>	保存改变后的CMOS设定值并重启	

# 3.2.1、主菜单信息(Main)

Main Advanced Chipset	Aptio Setup – AMI Security Boot Save & Exit	
BIOS Information BIOS Vendor Core Version Compliancy Project Version Model Build Date and Time Access Level	American Megatrends 5.27 UEFI 2.8; PI 1.7 F1 CW-ADLNT-1C2L 05/12/2023 08:57:50 Administrator	Set the Time. Use Tab to switch between Time elements.
Processor Information Intel(R) N100 Name Speed Total Memory Memory Frequency PCH Information Name ME FW Version System Language System Date System Time	AlderLake ULX 800 MHz 8192 MB 4800 MHz PCH-N 16.50.0.1120 [English] [Tue 07/11/2023] [14:52:07]	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
	Version 2 22 1287 Convright (C) 20	23 AMT

## 3.2.2、高级 BIOS 功能设置(Advanced)

Aptio Setup – AMI Main Advanced Chipset Security Boot Save & Exit			
<ul> <li>Connectivity Configuration</li> <li>CPU Configuration</li> <li>Power &amp; Performance</li> <li>PCH-FW Configuration</li> <li>Thermal Configuration</li> <li>Thunderbolt(TM) Configuration</li> <li>Trusted Computing</li> <li>ACPI Settings</li> <li>IT8613 Super IO Configuration</li> <li>Hardware Monitor</li> <li>USB Configuration</li> <li>Network Stack Configuration</li> <li>SCM Configuration</li> <li>SS RTC Wake Settings</li> <li>RAM Disk Configuration</li> <li>Intel(R) Ethernet Controller I226-V - 00:E0:70:13:57:6F</li> <li>Intel(R) Ethernet Controller I226-V - 00:E0:70:13:57:70</li> <li>Driver Health</li> </ul>	Configure Connectivity related options		
Version 2.22.1287 Copyright (C) 2023 AMI			

# 3.2.3、链接配置信息(Connectivity Configuration)

Advanced	Aptio Setup — AMI	
CNVi CRF Present CNVi Configuration CNVi Mode Wi-Fi Core BT Core BT Audio Offload BT RF-Kill Delay Time RFI Mitigation	No [Auto Detection] [Enabled] [Enabled] [Enabled] 0 [Enabled]	This option configures Connectivity. [Auto Detection] means that if Discrete solution is discovered it will be enabled by default. Otherwise Integrated solution (CNVi) will be enabled; [Disable Integrated] disables
CoExistence Manager	[Disabled]	Integrated Solution. NOTE: When CNVi is present, ▼
Discrete Bluetooth Interface	[USB]	
BT Tile Mode	[Disabled]	↔: Select Screen ↑↓: Select Item
Advanced settings	[Disabled]	Enter: Select +/-: Change Opt.
▶ WWAN Configuration		F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version	2 22 1287 Conuright (C) 2023	3 AMT

# 3.2.4、CPU 配置信息(CPU Configuration)

Advanced	Aptio Setup — AMI	
Advanced CPU Configuration Efficient-core Information Performance-core Information ID Brand String VMX SMX/TXT TXT Crash Code TXT SPAD Boot Guard Status Boot Guard SACM Information	Aptio Setup - AMI 0×B06E0 Intel(R) N100 Supported Not Supported 0×00000000 0×00000000000000000 0×00000000	▲ Displays the E-core Information
C6DRAM CPU Flex Ratio Override CPU Flex Ratio Settings Hardware Prefetcher Adjacent Cache Line Prefetch Intel (VMX) Virtualization Technology PECI AVX Active Efficient-cores	[Enabled] [Disabled] 8 [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [A11]	Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

# 3.2.5、电源与性能(Power & Performance)

Advanced	Aptio Setup – AMI	
Havancea		
Power & Performance		CPU – Power Management Control Options
▶ CPU – Power Management Control ▶ GT – Power Management Control		
		<pre>++: Select Screen f↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version 2	.22.1287 Copyright (C) 2023	AMI
Advanced	Aptio Setup – AMI	
CPU - Power Management Control Boot performance mode Intel(R) SpeedStep(tm) Race To Halt (RTH) Intel(R) Speed Shift Technology Per Core P State OS control mode HwP Autonomous Per Core P State HwP Autonomous EPP Grouping EPB override over PECI HwP Lock HDC Control Turbo Mode View/Configure Turbo Options CPU VR Settings Platform PL1 Enable Platform PL2 Enable Power Limit 4 Override C states Thermal Monitor Interrupt Redirection Mode Selection Timed MWAIT Custom P-state Table EC Turbo Control Mode	[Turbo Performance] [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [Enabled] [Disabled] [Disabled] [Disabled] [Disabled] [Fixed Priority] [Disabled]	Select the performance state that the BIOS will set starting from reset vector. ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit



#### 3.2.6、集成南桥固件配置 (PCH-FW Configuration)

Advanced	Aptio Setup – AMI	
ME Firmware Version	16.50.0.1120	When Disabled ME will be put
ME Firmware Mode	Normal Mode	into ME Temporarily Disabled
ME Firmware SKU	Consumer SKU	Mode.
ME Firmware Status 1	0×90000255	
ME Firmware Status 2	0x8B100106	
ME Firmware Status 3	0x00000020	
ME Firmware Status 4	0x00004000	
ME Firmware Status 5	0x0000000	
ME Firmware Status 6	0x00400002	
NE Ctoto	[Epobled]	
ME Upconfig on RTC Cloop	[Enabled]	
Comme Hub Support	[Dicobled]	
THI Support	[Disabled]	++ Select Screen
Core Bios Done Message	[Fnahled]	11: Select Item
	[[[]]]	Enter: Select
▶ Firmware Undate Configuration		+/-: Change Opt.
PTT Configuration		F1: General Help
► FIPS Configuration		F2: Previous Values
▶ ME Debug Configuration		F9: Optimized Defaults
▶ Anti-Rollback SVN Configuration		F10: Save & Exit
Extend CSME Measurement to TPM-PCR	[Disabled]	ESC: Exit
Version 2	2.22.1287 Copyright (C) 2023	AMI

# 3.2.7、温度控制信息(Thermal Configuration)

Aptio Setup – AMI Advanced	
Thermal Configuration Enable All Thermal Functions [Enabled] • CPU Thermal Configuration • Platform Thermal Configuration • Intel(R) Dynamic Tuning Technology Configuration	Enable All Thermal Functions" is Enabled it Enables 'Memory Thermal Management', 'Active Trip Points', 'Critical Trip Points'.Set to disabled for Manual Configuration
	++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version 2.22.1287 Copyright (C) :	2023 AMI

3.2.8、TM 配置信息(Thunderbolt (TM) Configuration)

Advanced	Aptio Setup – AMI	
PCIE Tunneling over USB4 USB4 CM Mode Integrated Thunderbolt(TM) Support	[Disabled] [OS Dependent] [Disabled]	Enable or disable PCIE Tunneling over USB4
Version 2.	.22.1287 Copyright (C) 2023	AMI

# 3.2.9、可信计算 (Trusted Computing)

Advanced	Aptio Setup — AMI	
Advanced TPM 2.0 Device Found Firmware Version: Vendor: Security Device Support Active PCR banks Available PCR banks SHA256 PCR Bank SH384 PCR Bank SM3_256 PCR Bank SM3_256 PCR Bank Pending operation Platform Hierarchy Storage Hierarchy Endorsement Hierarchy Physical Presence Spec Version TPM 2.0 InterfaceType Device Select	600.18 INTC [Enable] SHA256 SHA256,SHA384,SM3 [Enabled] [Disabled] [Disabled] [Enabled] [Enabled] [Enabled] [Enabled] [I.3] [CRB] [Auto]	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available. ++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version	2.22.1287 Copyright <u>(C)</u> 202	3 AMI

# 3.2.10、电源管理配置(ACPI Settings)

Advanced	Aptio Setup — AMI	
ACPI Settings		Enables or Disables BIOS ACPI
Enable ACPI Auto Configuration	[Disabled]	huto configuration.
Enable Hibernation ACPI Sleep State	[Enabled] [S3 (Suspend to RAM)]	
		<pre> ++: Select Screen  1↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version 2	.22.1287 Copyright (C) 2023	AMI

# 3.2.11、I/O 串口设置(Super IO Configuration)

Advanced	Aptio Setup — AMI	
IT8613 Super IO Configuration		Set Parameters of Serial Port
Super IO Chip ▶ Serial Port 1 Configuration	IT8613	
Restore AC Power Loss By IO	[Power Off]	
		→+: Select Screen ↑↓: Select Item
		Enter: Select +/-: Change Opt.
		F1: General Help F2: Previous Values F9: Optimized Defaults
		F10: Save & Exit ESC: Exit

# 3.2.12、硬件监控 (Hardware Monitor)

Advanced	Aptio Setup – AMI	
Pc Health Status CPU temperature System temperature Fan2 Speed	: +75 C : +57 C : N/A	Smart Fan function setting
Fan3 Speed ▶ Smart Fan Function	: N/A	
		<pre>++: Select Screen f↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults</pre>
		F10: Save & Exit ESC: Exit
Versi	on 2.22.1287 Copyright (C) 2023	3 AMI

Advanced	Aptio Setup – AMI	
CPUFan Setting Smart Fan 1 Mode Fan off temperature limit Fan start temperature limit Fan full speed temperature limit Fan start PWM PWM SLOPE SETTING SYSFan Setting Smart Fan 2 Mode Fan off temperature limit Fan start temperature limit Fan full speed temperature limit Fan start PWM PWM SLOPE SETTING	[Automatic Mode] 10 40 78 100 [4 PWM] [Automatic Mode] 10 40 78 100 [4 PWM]	Smart Fan 1 Mode Select **: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version 2	22 1287 Conuright (C) 2023	АМТ

# 3.2.13、USB 配置信息(USB Configuration)

Advanced	Aptio Setup — AMI	
USB Configuration		Enables Legacy USB support.
USB Module Version	29	AUIU option disables legacy support if no USB devices are connected. DISABLE option will
USB Controllers: 1 XHCI		keep USB devices available only for EFI applications.
USB Devices: 1 Drive, 1 Keyboard		
Legacy USB Support XHCI Hand-off	[Enabled] [Enabled]	
USB Mass Storage Driver Support	[Enabled]	
USB hardware delays and time-outs: USB transfer time-out	[20 sec]	≁+: Select Screen ↑↓: Select Item
Device reset time-out Device power-up delay	[20 sec] [Auto]	Enter: Select +/−: Change Opt.
Mass Storage Devices:		F1: General Help F2: Previous Values
USB 2.0 USB Flash Drive 1100	[Auto]	F9: Optimized Defaults F10: Save & Exit
		ESC: Exit
Version 2	.22.1287 Copyright (C) 2023	AMI

# 3.2.14、网络堆栈配置工具(Network Stack Configuration)

Advanced	Aptio Setup – AMI	
Network Stack	[Disabled]	Enable/Disable UEFI Network Stack **: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
	Version 2.21.1278 Copyright (C	) 2023 AMI

# 3.2.15、兼容支持模块(CSM Configuration)

Compatibility Support Module Configuration Enable/Disable CSM Support. CSM Support [Disabled]
CSM Support [Disabled]
++: Select Screen 14: Select Item
Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

# 3.2.16、NVME 配置信息(NVME Configuration)

Aptio Setup – AMI Advanced	
NVMe Configuration	
No NVME Device Found	<pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version 2.22.1287 Copyright (C) 2023	AMI

# 3.2.17、自动开机设置(S5 RTC Wake Settings)

Advanced	Aptio Setup — AMI	
Wake On RTC	[Disabled]	Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified. Select DynamicTime , System will wake on the current time + Increase minute(s) ++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
	Version 2.22.1287 Copyright (C)	2023 AMI

### 3.2.18、芯片组设置信息(Chipset)



#### 3.2.19、系统代理设定 (System Agent (SA) Configuration)

Chipset	Aptio Setup – AMI	
System Agent (SA) Configuration		Memory Configuration Parameters
VT-d	Supported	
<ul> <li>Memory Configuration</li> <li>Graphics Configuration</li> <li>DMI/OPI Configuration</li> <li>TCSS setup menu</li> <li>Display setup menu</li> <li>PCI Express Configuration</li> </ul>		<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version	1 2.22.1287 Copyright (C) 2023	3 AMI

Chipset	Aptio Setup — AMI	
LCD Control Primary IGFX Boot Display LCD Panel Type Panel Scaling Backlight Control Active LFP Panel Color Depth Backlight Brightness	[VBIOS Default] [VBIOS Default] [Auto] [PWM Normal] [eDP Port-A] [18 Bit] 255	Select the Video Device which will be activated during POST. This has no effect if external graphics present. Secondary boot display selection will appear based on your selection. VGA modes will be supported only on primary display
		<pre> ++: Select Screen  1↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
	Version 2.22.1287 Copyright (C) 2023	AMI

# 3.2.20、PCH-IO 配置信息 (PCH-IO Configuration)

Aptio Chipset	Setup — AMI
PCH-IO Configuration > PCI Express Configuration > SATA Configuration > USB Configuration > HD Audio Configuration	PCI Express Configuration settings
	<pre> ++: Select Screen  14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version 2.22.1287	Copyright (C) 2023 AMI

	Chip	set	Aptio Setup — AMI	
PC:	[ Express Configura	tion		The control of Active State
DMC Por Cor PCC	Link ASPM Control rt8xh Decode mpliance Test Mode Le function swap Te FD settings		[Auto] [Disabled] [Disabled] [Enabled]	Link.
PC: PC:	Express Root Port	1 2	Lane configured as USB/SATA/UFS Lane configured as USB/SATA/UFS	
<ul> <li>PC:</li> <li>PC:</li> <li>PC:</li> <li>PC:</li> <li>PC:</li> </ul>	[ Express Root Port [ Express Root Port [ Express Root Port [ Express Root Port [ Express Root Port	3 4 5 6 7	Not present in this SKU Not present in this SKU	++: Select Screen f↓: Select Item Enter: Select +/-: Change Opt. E4: Serenel Wein
PC: PC: PC: PC: PC:	Express Root Port Express Root Port Express Root Port Express Root Port Express Root Port	8 9 10 11 12	Not present in this SKU Shadowed by x2/x4 port Lane configured as USB/SATA/UFS Lane configured as USB/SATA/UFS	F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

#### Version 2.22.1287 Copyright (C) 2023 AMI

Chinset	Aptio Setup — AMI	
onipoet		
SATA Configuration		Enable/Disable SATA Device.
SATA Configuration SATA Controller(s) SATA Mode Selection SATA Test Mode Aggressive LPM Support Serial ATA Port 0 Software Preserve Port 0 Hot Plug Configured as eSATA External Spin Up Device SATA Device Type Topology	[Enabled] [AHCI] [Disabled] [Enabled] Empty Unknown [Enabled] [Disabled] Hot Plug supported [Disabled] [Disabled] [Hard Disk Drive] [Unknown]	▲ Enable/Disable SATA Device. ★+: Select Screen ★↓: Select Item Enter: Select Enter: Select
DITO Configuration	[Disabled]	F1: General Help
DITU Value DM Value	625 15	F9: Optimized Defaults
Serial ATA Port 1 Software Preserve Port 1 Hot Plug Configured as eSATA	Empty Unknown [Enabled] [Disabled] Hot Plug supported	F10: Save & Exit ESC: Exit

Version 2.22.1287 Copyright (C) 2023 AMI

н

Chipset	Aptio Setup – AMI	
USB Configuration		Enable/Disable xDCI (USB OTG
xDCI Support USB2 PHY Sus Well Power Gating	[Disabled] [Enabled]	
USB PDO Programming USB Overcurrent USB Overcurrent Lock USB Audio Offload Enable HSII on xHCI USB Port Disable Override	[Enabled] [Enabled] [Enabled] [Enabled] [Enabled]	
		<pre>++: Select Screen f4: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version	2.22.1287 Convright (C) 202	3 AMT

Chipset	Aptio Setup – AMI	
Chipset HD Audio Subsystem Configuration Sett HD Audio Audio DSP HDA Link DMIC #0 DMIC #1 SSP #0 SSP #1 SSP #2 SSP #3 SSP #3 SSP #4 SSP #5 SNDW #0 SNDW #1 SNDW #2 SNDW #3 HD Audio Advanced Configuration HDA Codec ALC245 Configuration	Aptio Setup - AMI ings [Enabled] [Disab	Control Detection of the HD-Audio device. Disabled = HDA will be unconditionally disabled Enabled = HDA will be unconditionally enabled. ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version 2	22.1287 Convright (C) 2023	AMT

# 3.2.21、安全设置(Security)

Main Advanced Chipset Security	Aptio Setup – AMI Boot Save & Exit	
Password Description		Set Administrator Password
If ONLY the Administrator's password then this only limits access to Setu only asked for when entering Setup. If ONLY the User's password is set, is a power on password and must be a boot or enter Setup. In Setup the Us have Administrator rights. The password length must be in the following range: Minimum length	l is set, up and is then this entered to er will 3	
Maximum length	20	++: Select Screen
Hoministrator Password User Password		<pre>First Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults</pre>
▶ Secure Boot		F10: Save & Exit ESC: Exit
Version 2	2.22.1287 Copyright (C) 2023	AMI

### 3.2.22、启动设置(Boot)

Main Advanced Chipset Security	Aptio Setup - AMI Boot Save & Exit	
Boot Configuration Setup Prompt Timeout Bootup NumLock State Quiet Boot	<mark>1</mark> [On] [Enabled]	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
Boot Option Priorities Boot Option #1	[UEFI: USB 2.0 USB Flash Drive 1100, Partition 1 (USB 2.0 USB Flash Drive 1100)]	
Fast Boot SATA Support	[Enabled] [Last Boot SATA Devices Dolu]	
NVMe Support UFS Support VGA Support USB Support PS2 Devices Support Network Stack Driver Support Redirection Support	[Enabled] [Enabled] [EFI Driver] [Full Initial] [Enabled] [Disabled] [Disabled]	<pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version	2.22.1287 Copyright (C) 2023	3 AMI

#### Setup Prompt Timeout

此选项用于设置开机 POST 界面停留时间长短。

#### Bootup Numlock State

用来设定系统启动后,Numlock 的状态。当设定为 On 时,系统启动后将打开 NumLock,小键盘的数字键有效。 当设定为 Off 的时候,系统启动后 Numlock 关闭,小键盘方向键有效。

#### •Fast boot

本项用来设置快速启动,可选项: Disabled, Enabled。

#### 3.2.23、保存退出(Save&Exit)

Save Options       Exi         Save Changes and Exit       the         Discard Changes and Reset       Discard Changes and Reset         Save Changes       and Reset         Save Changes       Discard Changes         Discard Changes       Discard Changes         Default Options       Restore Defaults         Save as User Defaults       ++:         Tuber Changes       -++:	
Save as User Defaults	t system setup a†ter saving changes.
Boot Override Entu UEFI: USB 2.0 USB Flash Drive 1100, Partition 1 (USB 2.0 +/- USB Flash Drive 1100) F1: F2: F9: F10 ESC	Select Screen Select Item er: Select : Change Opt. General Help Previous Values Optimized Defaults : Save & Exit : Exit

- Save Changes and Exit 保存所做变更并离开BIOS程序。
- Discard Changes and Exit 离开BIOS程序,而不保存变更。
- Save Changes and Reset 保存变更并重启主板。
- Discard Changes and Reset 不保存变更并重启BIOS程序。
- •Save Changes 保存变更
- •Discard Changes 不保存变更
- •Restore Defaults 恢复默认设置
- •Save as User Defaults 保存作为用户默认设置
- •Restore User Defaults

恢复用户默认设置