



Version 1.0

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ESD

(ESD, electrostatic sensitive devices) ч



ESD h ч

- ESD h Ў h ў G
- G
- ESD h G
- ESD G
- ESD G

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■ □ VESA □
■ DIN

3.2

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5.6

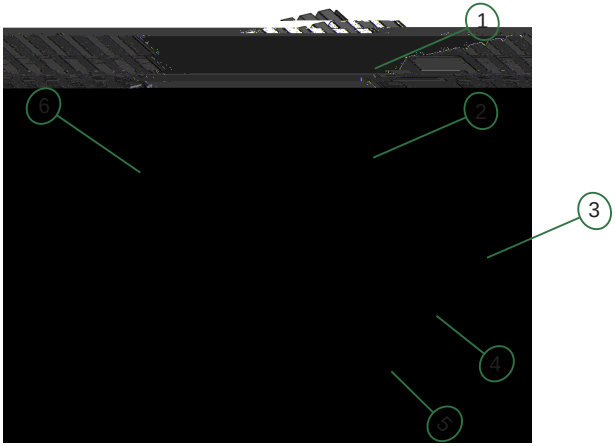
5.6.1 CN3

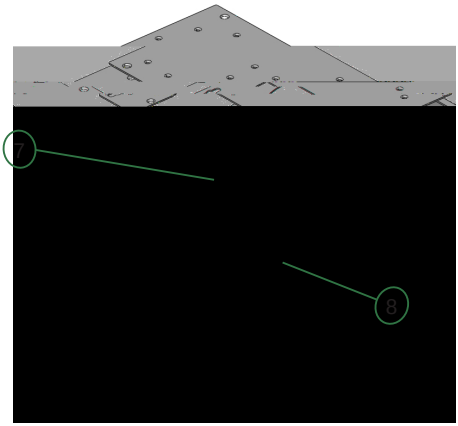
1	GND	2	GND	3	USB-	4	USB+
5	GND	6	SIN	7	SOUT	8	CTS#
9	RTS	10	GND	11	GP33	12	GP43
13	GP34	14	GP42	15	GP35	16	GP41
17	GP36	18	GP40	19	GND	20	NC
21	NC	22	GP64	23	GP37	24	GP63

5.6.6 CN2

6

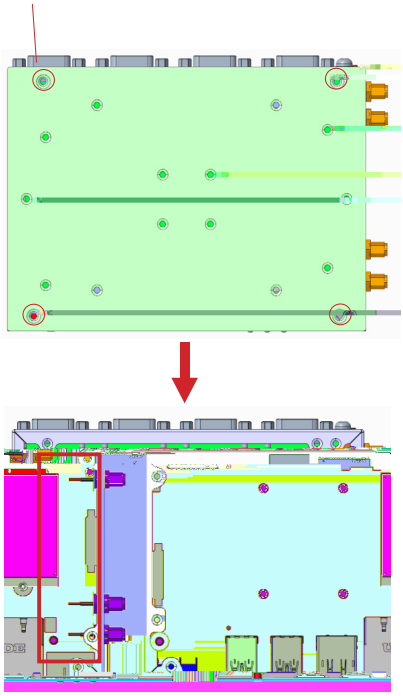
6.1





1		2		3	
4		5		6	
7		8			

6.2 M.2 2242/2280

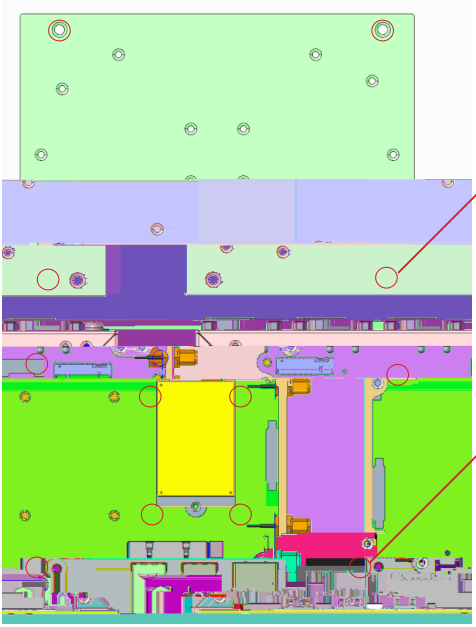


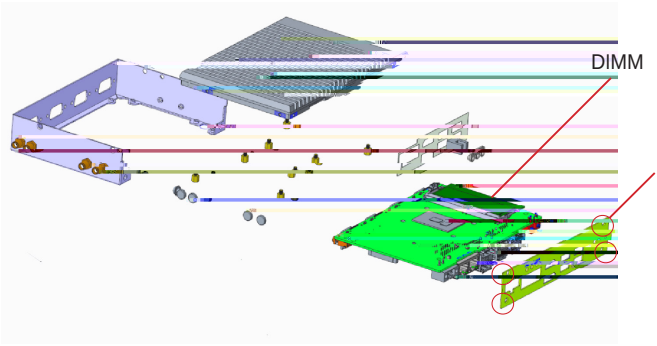
ч

1. 4 h Ң

ч 1. h 30° h h Ң
2. M.2 2242 h M.2 2280 M.2 2242 ɢ

6.3



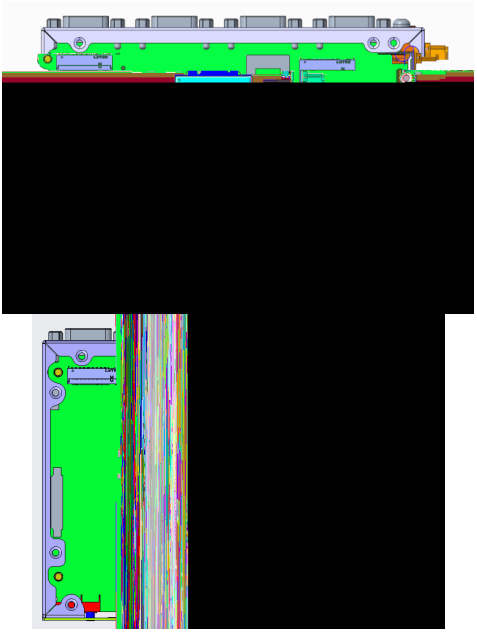


ч

1. 4 h Ђ
2. 8 h Ђ
3. DIMM h ɢ

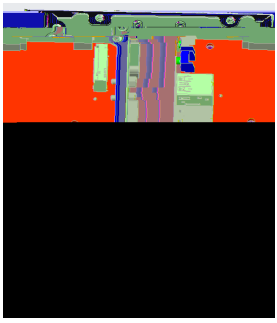
ч 1. h h
h Ђ
2. h h DIMM Ђ
3. h 30° ɢ

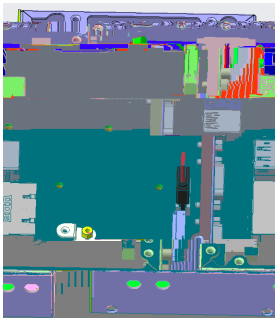
6.4 4G/5G



ч 4G/5G g
4G/5G h 30° g

ч 4G h 4G g





7 BIOS

7.1 BIOS

AMI BIOS ɢ BIOS Basic Input Output System (ÿ ɢ
ROM Ÿ Read-Only Memory) ɢ h BIOS
h ч
a. h POST(Power On Self Test) ɢ
b. ɢ
c. Hʊ ɢ
d. SETUP ɢ
BIOS CMOS RAM h
ɢ h h BIOS ɢ CMOS
h BIOS ɢ

7.2 BIOS

BIOS Setup h ɢ BIOS
h h h ɢ
SETUP ч
a. h SETUP Ь
b. ɢ

ч BIOS h h BIOS ɢ
ɢ

7.2.1 BIOS

h h <DEL> BIOS
ɢ

Press <Delete> to enter SETUP

Press <F11> to enter Boot Menu

7.2.2

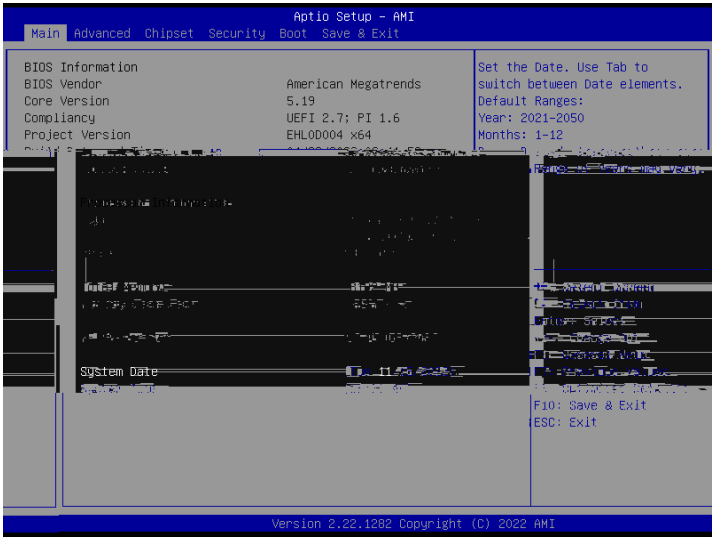
h <Enter> h <F1> h <Esc>
ɢ ɢ

/	
/	
+/ -	/
<Enter>	h
<ESC>	h CMOS SETUP
<F1>	
<F7>	
<F9>	
<F10>	CMOS

7.3 BIOS

Main		BIOS
Advanced		BIOS
Chipset		
Security		
Boot		
Save & Exit		BIOS

7.4 Main



System Date ( )

, d , / / d G

System Time

< >< >< > G

7.5 Advanced

CPU Con f guration	CPU	
CPU Performance Con f guration	CPU	
Trusted Computing		
Watch Dog Con f guration		
Super IO Con f guration ↔ ↕ Enter	Super IO	
Hardware Monitor		
Power Management Con f guration		

ÿ CPU Conžguration <Enter> G



CPU Flex Ratio Override

CPU G

ч Disable,Enable.

. Intel(VMX) Virtualization Technology

Intel Ÿ VMX ÿ G

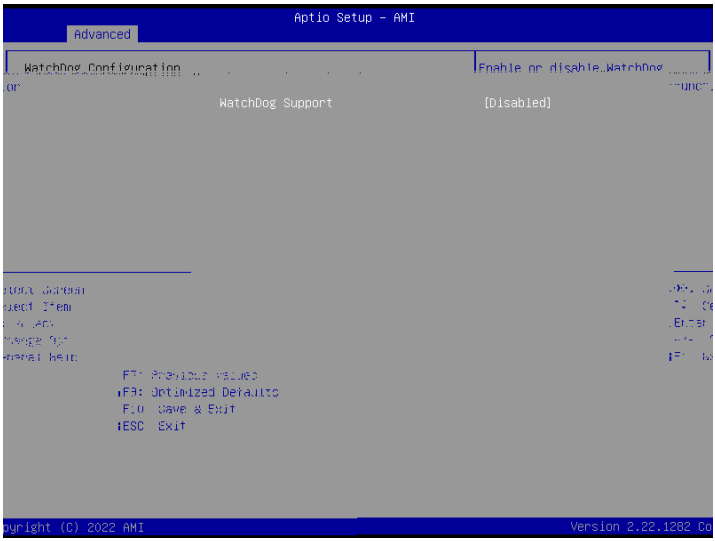
ч Disable,Enable.

Active Processor Cores

G

ч ALL,1,2,3.

y Watch Dog Conžguration <Enter> G

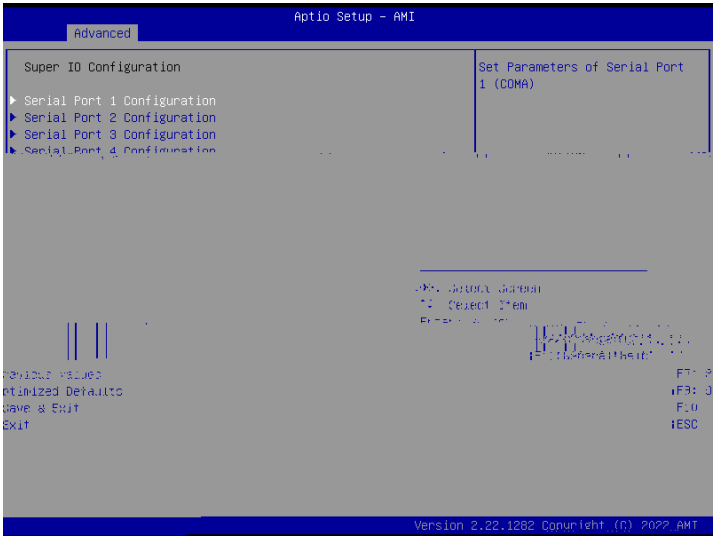


WatchDog Support

G

ч Disable,Enable.

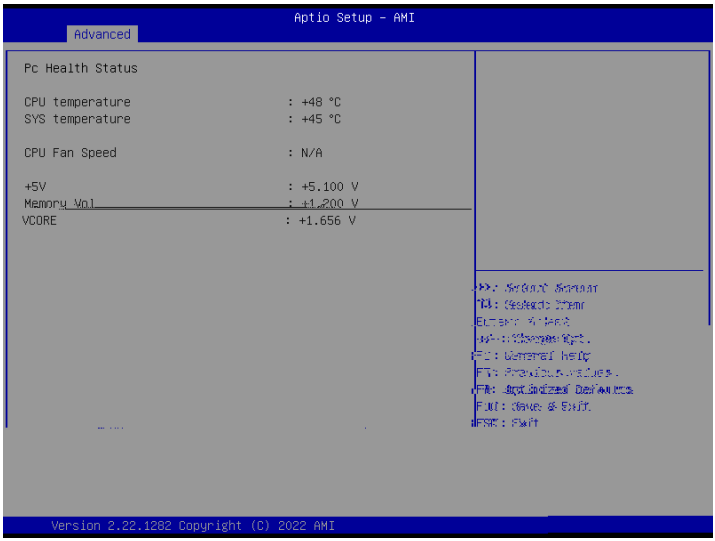
y Super IO Conžguration <Enter> G



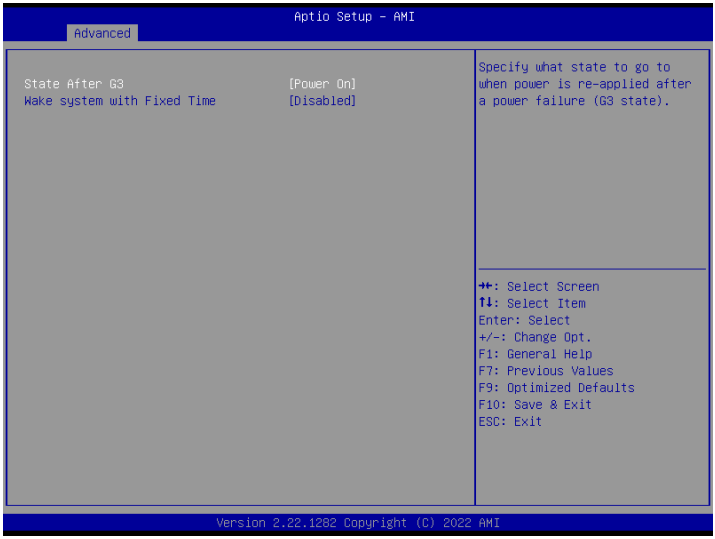
Serial Port 1/2/3/4 Con f guration

G

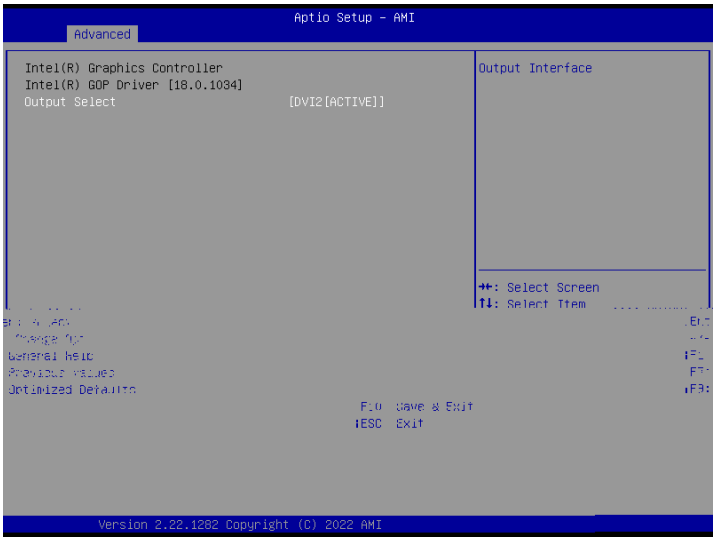
y Hardware Monitor <Enter> G



y Power Management Conžguration <Enter> G



y AMI Graphic Output Protocol Policy <Enter> G

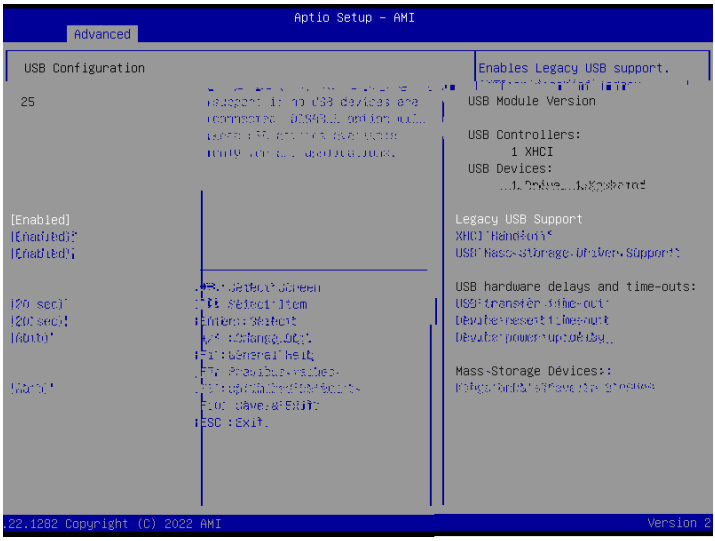


Output Select

G

ч DVI2[ACTIVE].

y USB Conžguration <Enter> G



Legacy USB Support

USB G

ч Disable,Enable,Auto.

XHCI Hand-of

XHCI G

ч Disable,Enable.

USB Mass Storage Driver Support

USB G

ч Disable,Enable.

USB transfer time-out

USB G

ч 1sec,5sec,10sec,20sec.

Device reset time-out

G

ч 10sec,20sec,30sec,40sec.

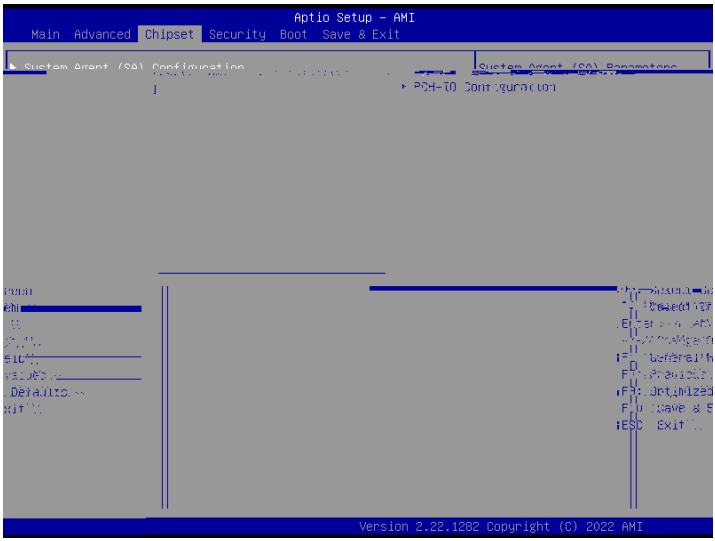
Device power-up delay

G

ч Auto,Manual.

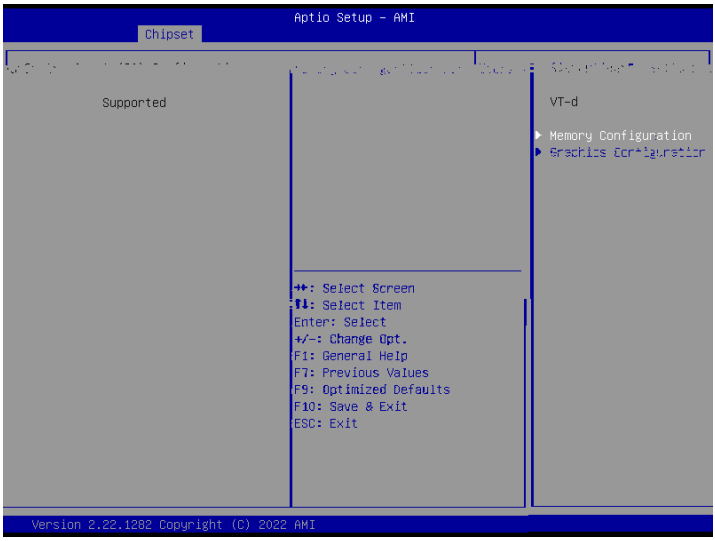
y Network Stack Conžguration

7.6 Chipset



System Agent Ÿ SA) Conžguration	Ÿ SA ÿ	
PCH-IO Conžguration	PCH-IO	

y System Agent(SA) Conżguration <Enter> G



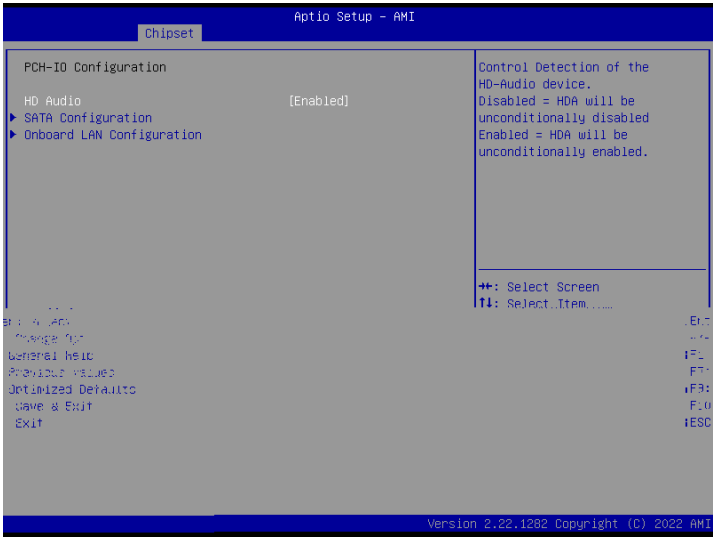
Memory Con f guration

G

Graphics Con f guration

G

y PCH-IO Conżguration <Enter> G



HD Audio Con f guration

G

ч Disable,Enable.

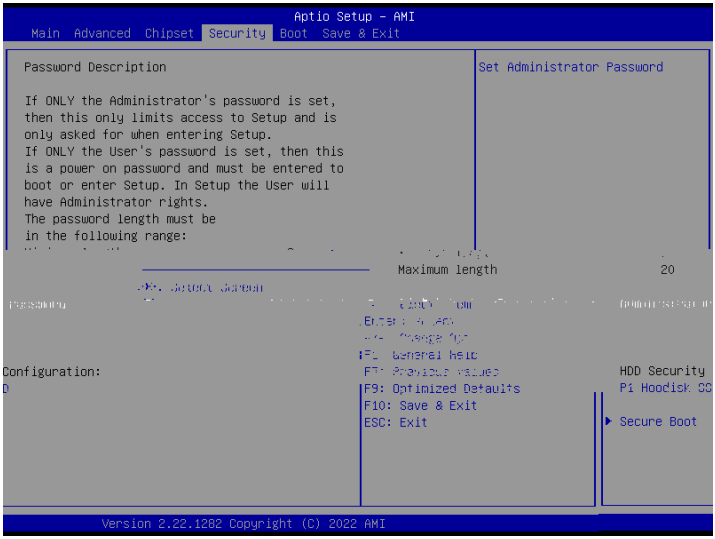
SATA Con f guration

SATA G

Onboard LAN Con f guration

G

7.7 Security



Administrator Password

h ч

1. Administrator Password h <Enter> G
2. d Create New Password d 3~20 h <Enter> h d Conžrm Password d h G d Invalid Password! d h h G h d Administrator Password d h d Enter Current Password d h d Create New Password d <Enter> G

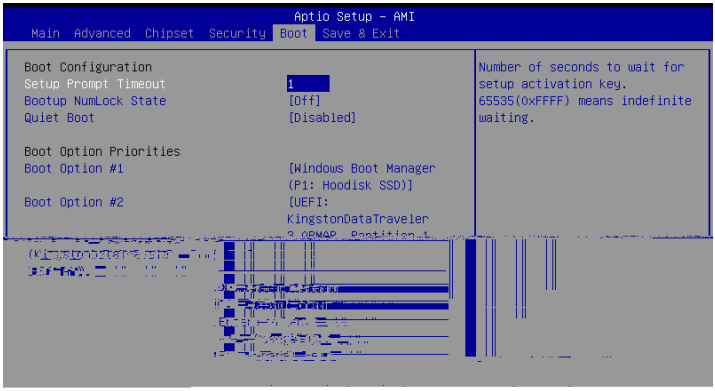
P1:Hoodisk SSD

HDD G

Secure Boot

G

7.8 Boot



Setup Prompt Timeout

G

Boot NumLock State

NumLock G

ч On,Oծ.

Quiet Boot

G

ч Disable,Enable.

Boot Option #1

1 G

ч Kingston Data Traveler 2.01.00,Disable.

7.9 Save&Exit



Save Changes and Reset

G

Discard Changes and Reset

G

Restore Defaults

G

8

AIoT3-EHL GPIO G
ч GPIOиWDT NCT6126 Super IO h
G

8.1

Linux h ч

8.2 GPIO

AIoT-EHL GPIO ч
Ў 1 ÿ GP30/31/32/37/63/64/65/86 h ɢ h
Ђ
Ў 2 ÿ GP33/34/35/36/40/41/42/43/82 h ɢ h
Ђ
Ў 3 ÿ GPIO Group GP3x/4x/6x Logical Device 7 h GP8x Logical Device 9 Ђ
Ў 4 ÿ GP3x(30~37) Logical Device 7 Register
0xED Bit0 Bit7 h GP4x(40~47) Logical Device
7 Register 0xF1 Bit0 Bit7 h GP6x(60~67) Logical Device 7 Register
0xF9 Bit0 Bit7 h GP8x(80~87) Logical Device 9 Register 0xF1 Bit0
Bit7;
Ў 5 ÿ GPIO Group3 h Ћ GPIO Group4/6 h
GPIO_GROUP_3_DATA_REGISTER GPIO Group4/6 Ћ0x30/0x37 0x40/0x47
0x60/0x67 Ђ GPIO Group 8 h Group4/6 h
ԁ //b. d GPIO_LDN7_DEVICE GPIO_LDN9_DEVICE ɢ

```
#dežne SuperIo_Index_Port 0x2E
#dežne SuperIo_Data_Port 0x2F
#dežne GPIO_LDN7_DEVICE 0x07
#dežne GPIO_LDN9_DEVICE 0x09
#dežne GPIO_GROUP_3_DATA_REGISTER 0xED
#dežne GPIO_GROUP_4_DATA_REGISTER 0xF1
#dežne GPIO_GROUP_6_DATA_REGISTER 0xF9
#dežne GPIO_GROUP_8_DATA_REGISTER 0xF1

GPIO Group 3
  //a. Super IO Con f guration Mode
  IoWrite8(SuperIo_Index_Port, 0x87);
  IoWrite8(SuperIo_Index_Port, 0x87);

  //b. GPIO, LDN 7
  IoWrite8(SuperIo_Index_Port,0x07);
  IoWrite8(SuperIo_Data_Port,GPIO_LDN7_DEVICE);

  //c. GPIO Group 3
  UINT8 BitObset;
  UINT8 GpioNumber;
  UINT8 Data8 Ђ
  for(GpioNumber=0x30; GpioNumber<=0x37; GpioNumber++)
  {

  BitObset = GpioNumber - 0x30;
  IoWrite8(SuperIo_Index_Port, GPIO_GROUP_3_DATA_REGISTER);
  Data8 = IoRead8(SuperIo_Data_Port);
  Data8 = Data8>>BitObset;
  Data8 = Data8 &0x1;
  }
  if(Data8&0x1){
```

```
    return 1;//       GPIO
    }else{
    return 0;//       GPIO
    }

    //d.    GPIO Group 3                          GPO              GPIO              GPI

    for(GpioNumber=0x30; GpioNumber<=0x37; GpioNumber++)
    {
    BitOffset = GpioNumber - 0x30;
    IoWrite8(SuperIo_Index_Port, GPIO_GROUP_3_DATA_REGISTER);
Ut  Data8 = IoRead8(SuperIo_Data_Port);
    Data8 &=~(0x1<<BitOffset);//       bit       0 h       GPIO
    //Data8 |= (0x1<<BitOffset); /*       bit         1  h       GPIO              */
/   IoWrite8(SuperIo_Index_Port, GPIO_GROUP_3_DATA_REGISTER);
;   }nOrEa6              A

    //f.        Super IO    Con f guration Mode
;   IoWrite8(SuperIo_Index_Port, 0x87);IoWrite8(SuperIo_Index_Port, 0x87);//Enter Configuration Mode    h SuperIO
```

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10.1

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