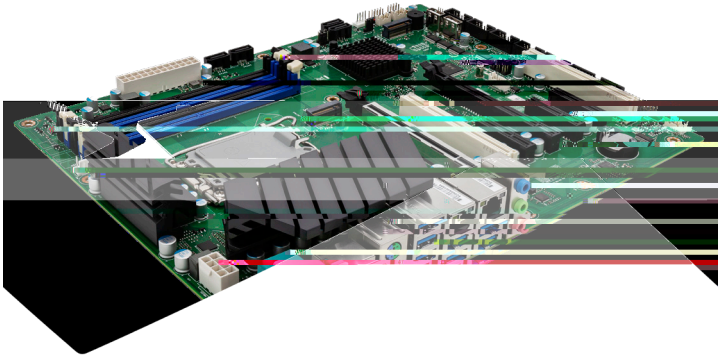
AIOT0-W680



h G h

G h

HU HU G

h G

h h G

h h

G

h

G

h G

h G

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1

1.1

X 1
X 1(1PCS/)
SATA X 1
I/O X 1

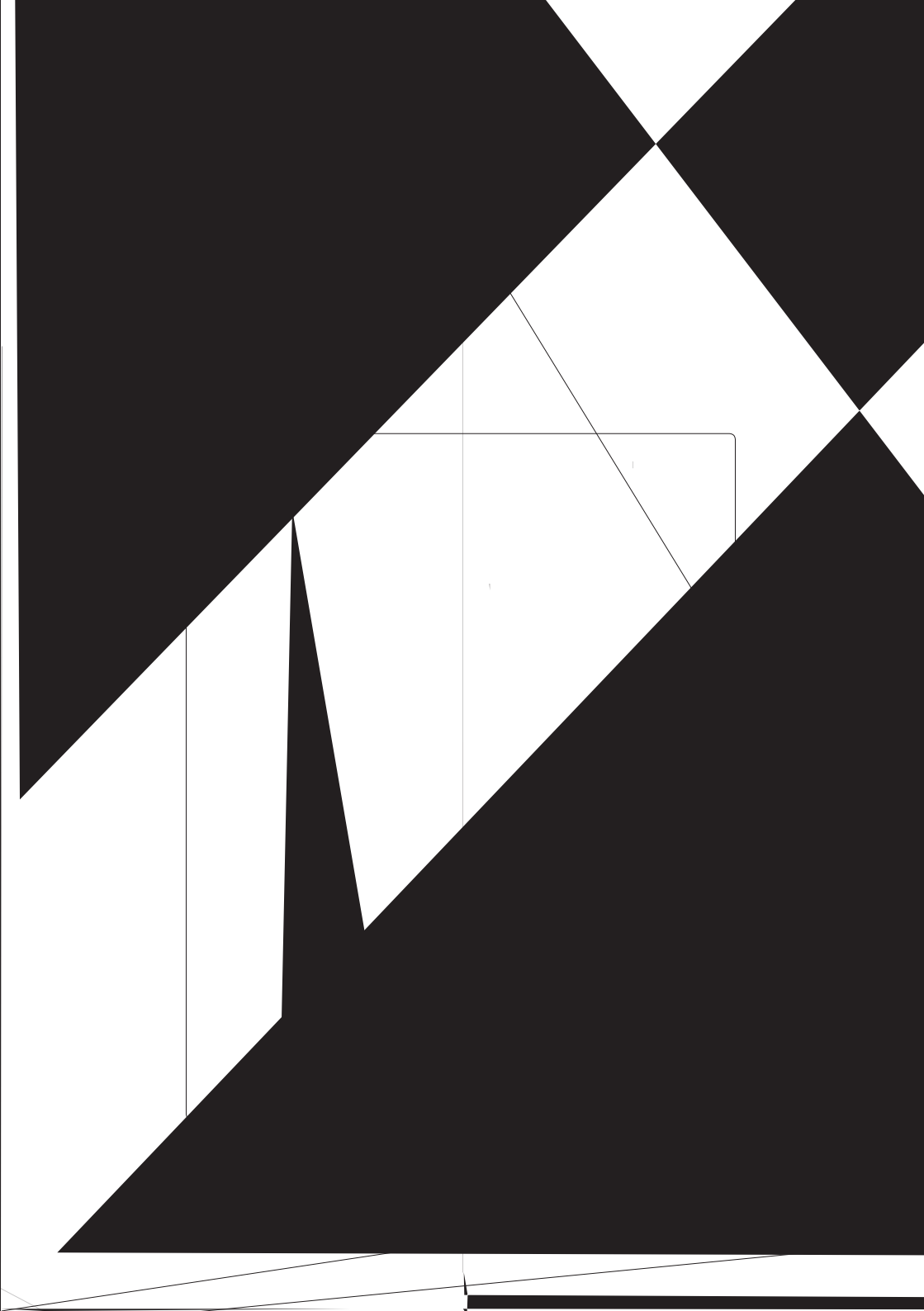


1.2

	- Intel LGA1700 Gen12&13 i9/i7/i5/i3 CPU TDP 125W
@@0	- Intel® W680 , vPro
!`	

	- -40uæ 85uæЧ 5% 95%(40uæ) h 85~105kPa
Watch Dog	- 255 / h
BIOS	- AMI UEFI BIOS
	- Win10 x64 h Win11 x64 h Linux Ubuntu 22.04
PCB	- 305mm X 244mm

1.3

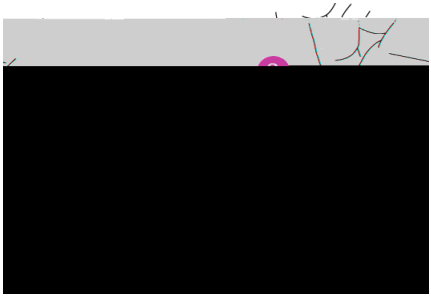


2

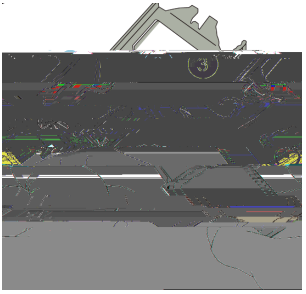
2.1 CPU

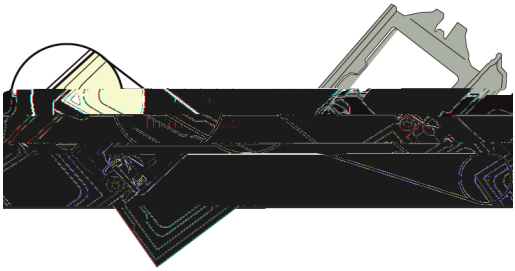
CPU h ч
1. CPU g
2. CPU h g
3.CPU h h CPU h h
g

CPU ч
1. CPU h CPU h 90 g



2. CPU h CPU g

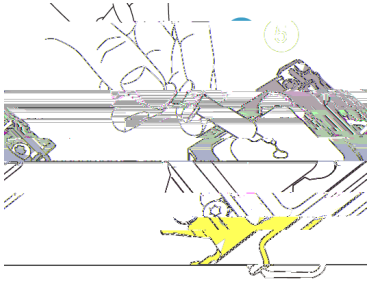




3. CPU CPU h h d d g



4. CPU h ɢ



2.2

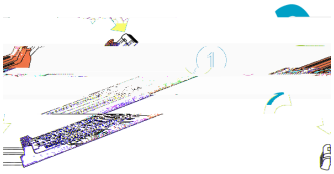
h ч

1. ɢ
2. h ɢ
3. h h h ɢ

:

1. h AC ɢ
2. h ɢ
3. h Ԋ
4. 30 h h ԁ d ,
   h ɢ Ў ч h h ў
5. h DIMM h ɢ

ў ў ч





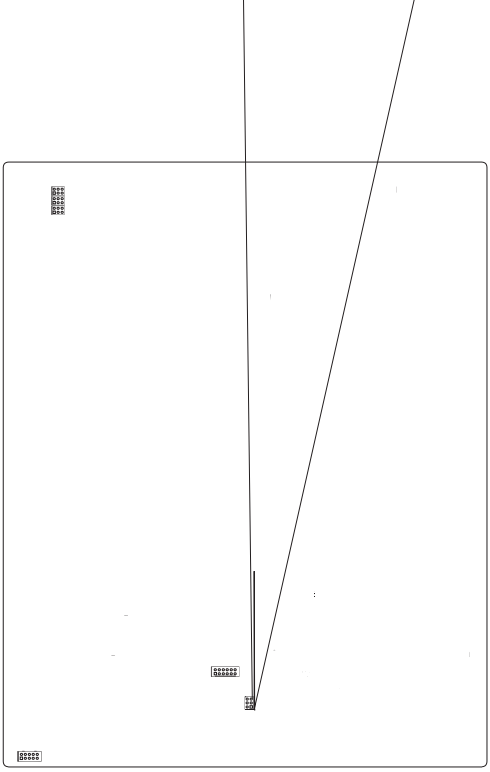


ч h h
h ɢ

2.3

2.3.1 Serial ATA

Serial ATA
Serial ATA



3 &

3.1

2 ч Ў ў G
Ў ў G
3 ч 1ʻ 2 2ʻ 3 Ў ў G



SHORT OPEN OPEN Pin1~2 SHORT Pin2~3 SHORT

1 Ъ
1. h "1" 1 G
2. h G

3.2

3.2

JME1 Ў ME h
ME h 1-2 ў

1-2	Disable ME
2-3	NORMAL

CLR_COMS1 Ў 2-3 h
BIOS h ў

1-2	NORMAL
2-3	CLEAR_COMS

ATX-M1 Ў 1-2 ч h
Ъ 2-3 ч
ў

1-2	ATX Mode
2-3	AT Mode

COM1
JC1/JC2/JC3

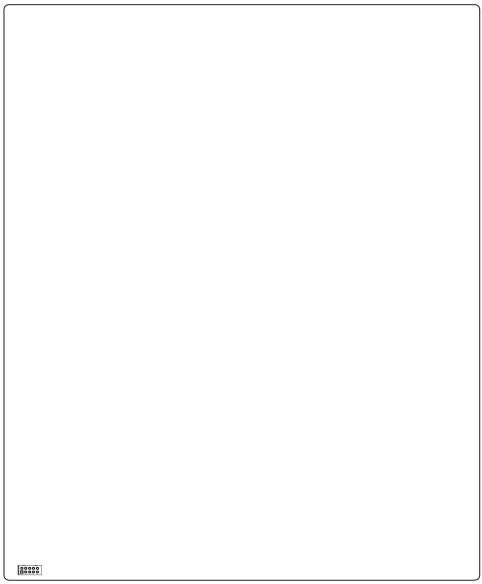
RS232	RS485	RS422
JC1(1-2)	JC1(3-4)	JC1(5-6)
JC2(1-3)	JC2(3-5)	JC2(3-5)
JC2(2-4)	JC2(4-6)	JC2(4-6)
JC3(1-3)		JC3(3-5)
JC3(2-4)		JC3(4-6)

JCOM2
JC4/JC5/JC6

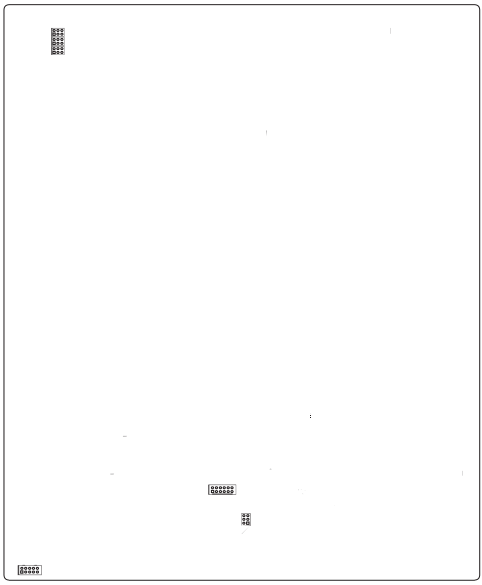
RS232	RS485	RS422
JC4(1-2)	JC4(3-4)	JC4(5-6)
JC5(1-3)	JC5(3-5)	JC5(3-5)
JC5(2-4)	JC5(4-6)	JC5(4-6)
JC6(1-3)		JC6(3-5)
JC6(2-4)		JC6(4-6)

COM1ЊJCOM2 RS-232/422/485 h G

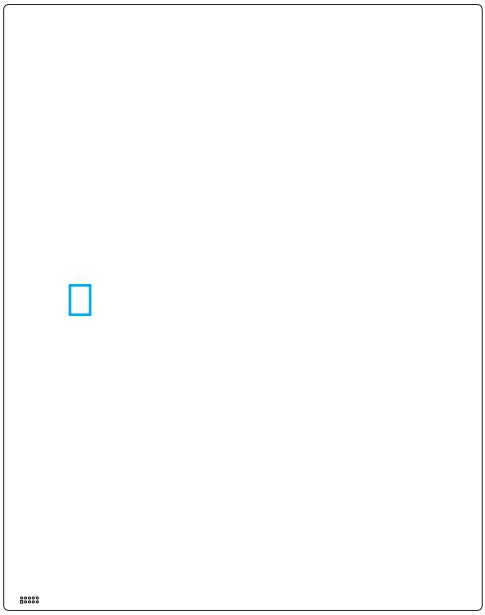
3.3 ATXPWR1 24Pin



5 CPU_FAN1 CPU

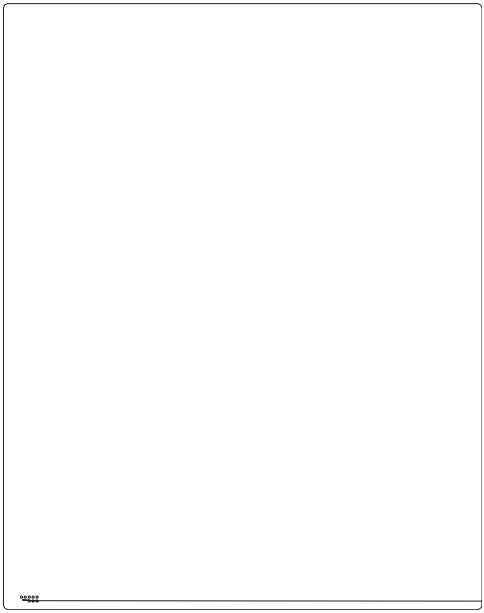


3.7 SYS_FAN1/2



3.8 F_AUDIO1

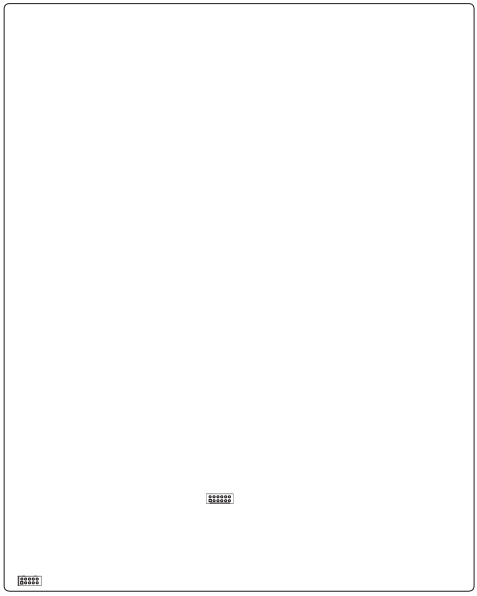
3.9 J_GPIO1 GPIO



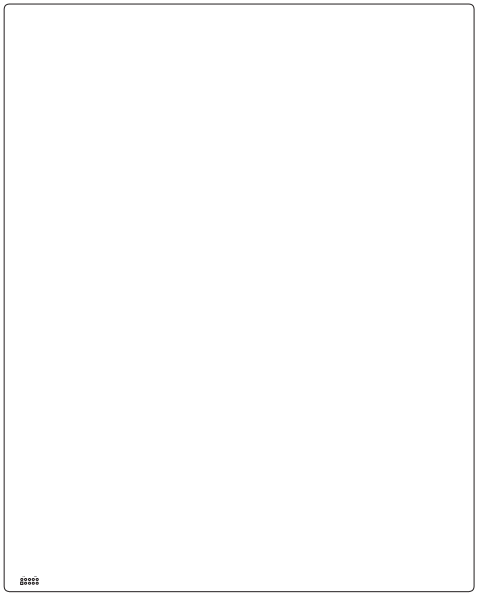
3.11 COM1

3.12 JCOM3/4/5/6 RS232

3.13 JESPI1



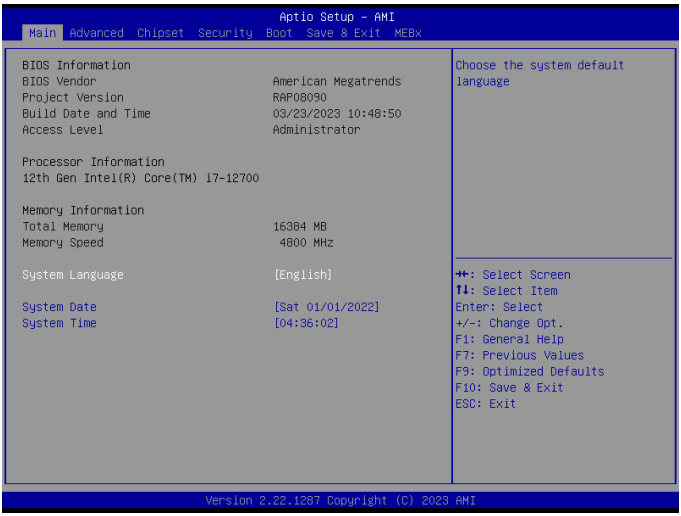
3.15 FPANEL1/2



4 BIOS

4.1 BIOS

4.3 Main



BIOS Information(BIOS

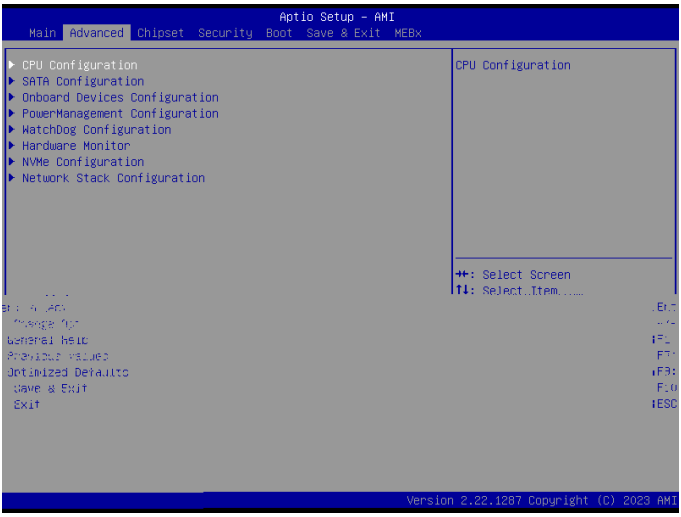
System Date ( )

, d h / / d G

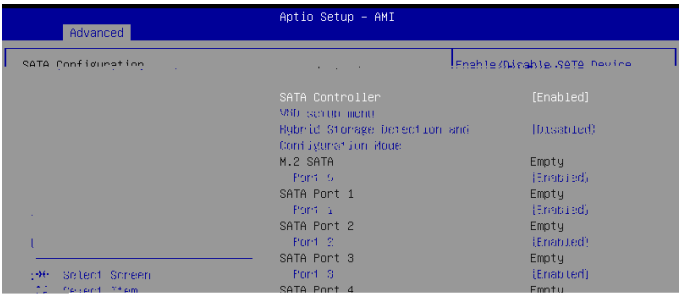
System Time

< >< >< > G

4.4 Advanced



► SATA Con f guration <Enter>



SATA Controller

Intel MVX G

ч Enabled,Disabled.

VMD setup menu

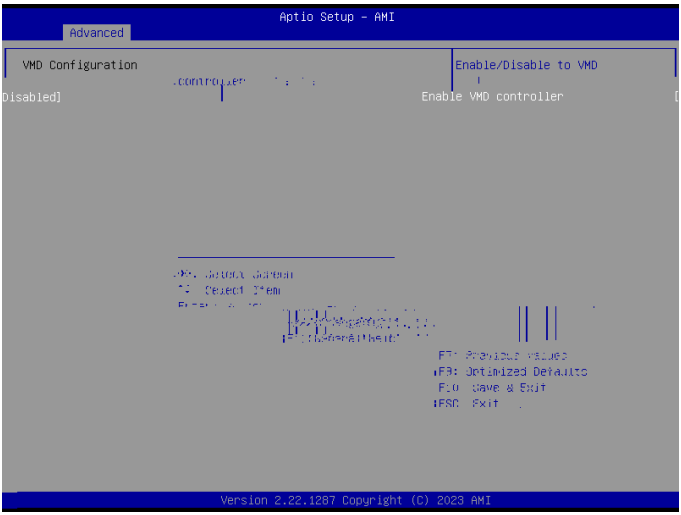
VMD G

Hybrid Storage Detection and Con f guration Mode

ч Dynamic Con f guration for Hybrid storane Enable, Disabled.

<Esc> d Advanced d

► VMD setup menu <Enter>



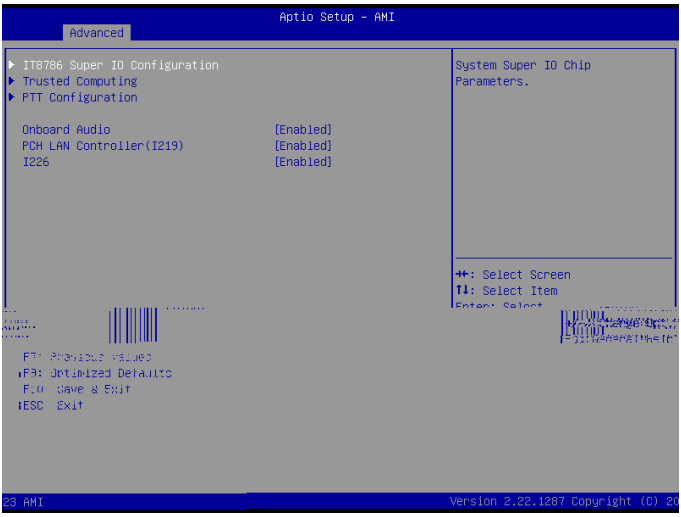
Enable VMD controller

VMD G

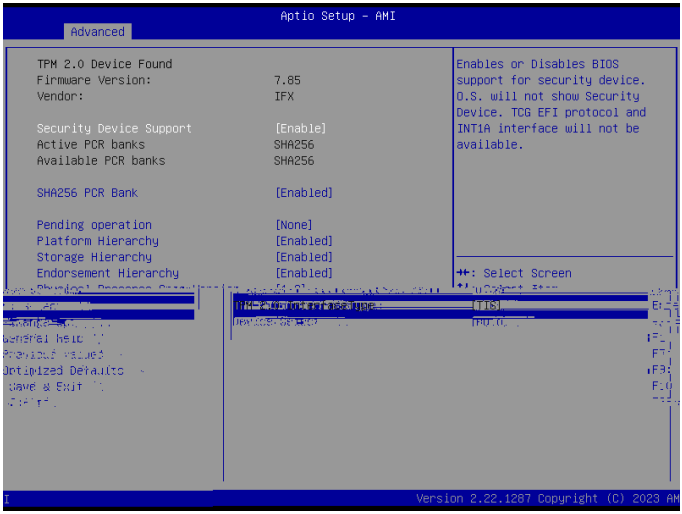
ч Enabled,Disabled.

<Esc> d Advanced d

► Onboard Devices Con f guration <Enter>



Trusted Computing Conf guration <Enter>



Security Device Support

BIOS

ч Enabled,Disabled.

SHA256 PCR Bank

SHA256 PCR Bank G

ч Enabled,Disabled.

Pending operation

G

ч None, TPM Clear.

Platform Hierarchy

G

ч Enabled,Disabled.

Storage Hierarchy

G

ч Enabled,Disabled.

Endorsement Hierarchy

G

ч Enabled,Disabled.

Physical Presence Spec Version

G

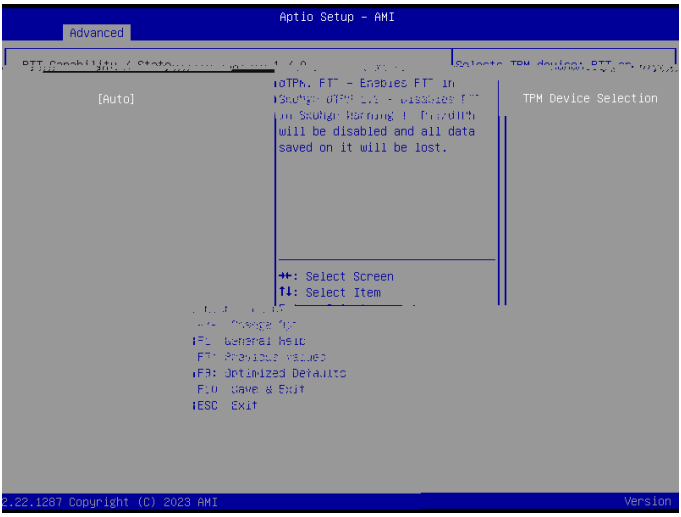
ч 1.2, 1.3.

Device Select

G

ч TPM 1.2 ,TPM 2.0 ,Auto.

PTT Con f guration <Enter>



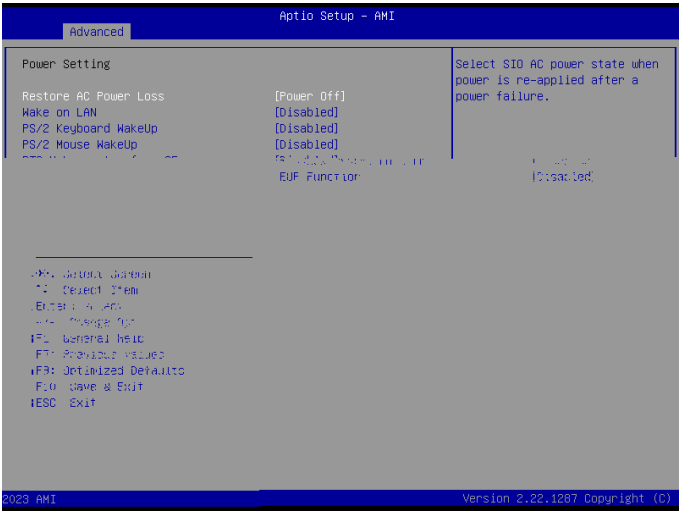
TPM Device Selection

TPM G

ч dTPM,PTT,Auto.

<Esc> d Advanced d

PowerManagement Con f guration <Enter>



Restore AC Power Loss

G

ϟ Power O f ,Power On ,Last State.

Wake on LAN

G

ϟ Enabled,Disabled.

PS/2 Keyboard WakeUp

PS/2 G

ϟ Enabled,Disabled.

PS/2 Mouse WakeUp

PS/2 G

ϟ Enabled,Disabled.

RTC Wake system from S5

RTC G

ϟ Disabled, Fixed Time,Dynamic Time.

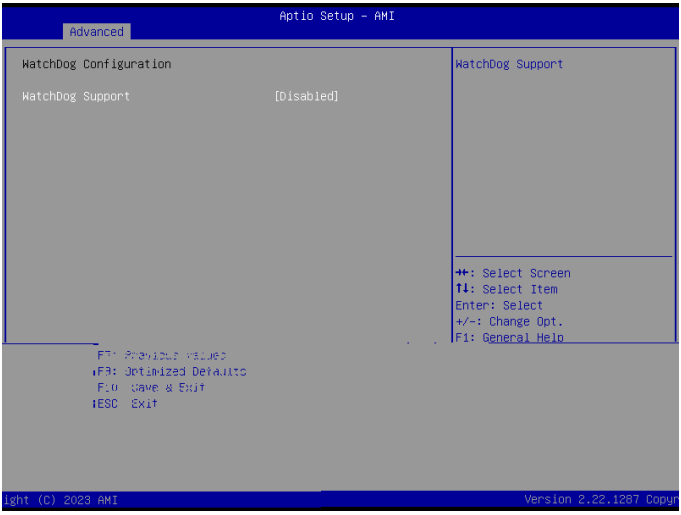
EUP Function

G

ϟ Enabled,Disabled.

<Esc> ⅆ Advanced ⅆ

WatchDog Con f guration <Enter>



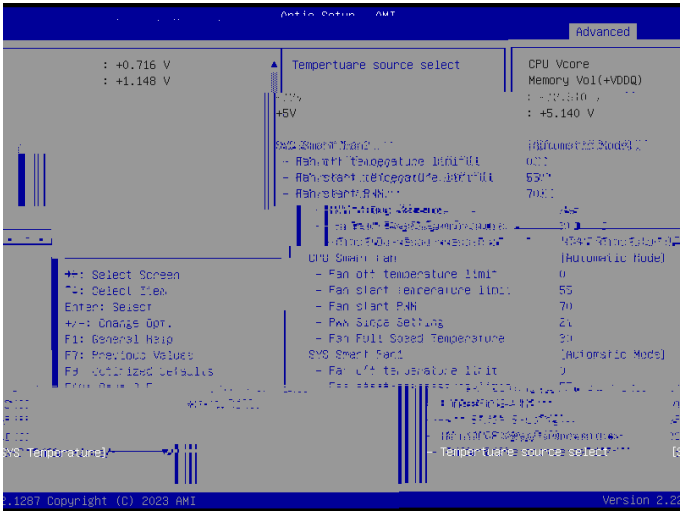
WatchDog Support

G

ϟ Enabled,Disabled.

<Esc> ⊿Advanced⊿

Hardware Monitor <Enter>



SYS Smart Fan2/1

G

↳ Full on Mode,Automatic Mode,Manual Mode.

Tempertuare source select

G

↳ CPU Temp,SYS Temperature.

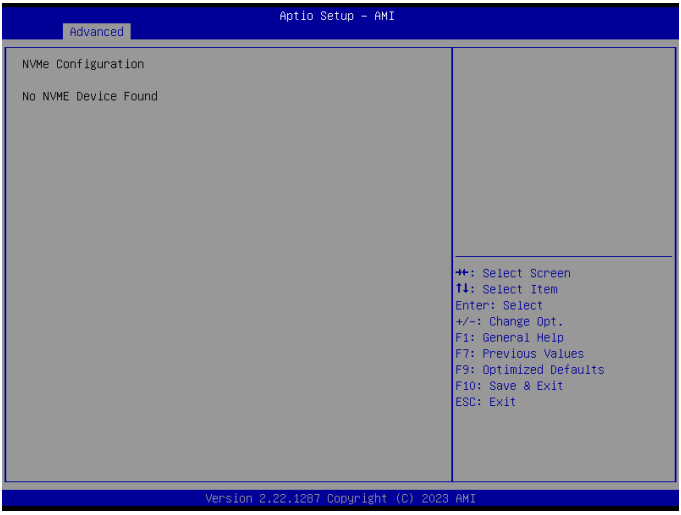
CPU Smart Fan

CPU G

↳ Full on Mode,Automatic Mode,Manual Mode.

<Esc> ⊿Advanced⊿

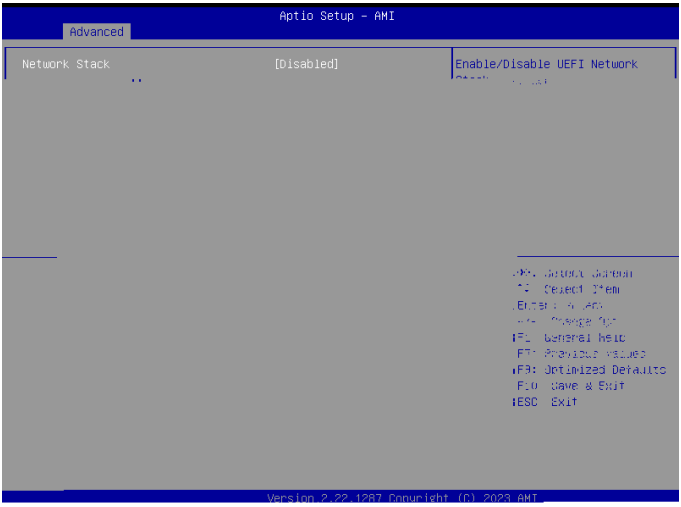
NVMe Con f guration <Enter>



ч NVMe h NVMe G

<Esc> d Advanced d

Network Stack Con f guration <Enter>



Network Stack

UEFI G

ч Enabled,Disabled.

4.6 Security



Administrator Password

h ч

1. Administrator Password h <Enter> g
2. d Create New Password d 3~20 h
<Enter> h d Confrm 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

Administrator Password

g

ч Setup,Setup&Post.

4.7 Boot



Setup Prompt Timeout

G

Bootup NumLock State

h Numlock G On h NumLock h

G Of h Numlock h G

ч On,Of .

Full Screen Logo

G

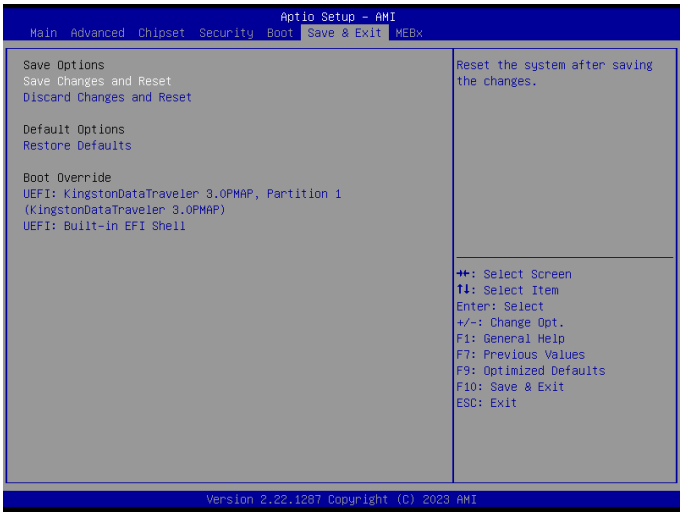
ч Enabled,Disabled.

Boot Option #1/2

h G

ч NVMe,Hard Disk,CD/DVD,USB Hard Disk,USB Key,USB CD/DVD,Net work,UEFI AP.

4.8 Save & Exit



Save Changes and Reset

G

Discard Changes and Reset

G

Restore Defaults

G

5

h h G

h X ч \AUTORUN.EXE Ÿ X ч ÿ G



(h)

h G

```
 loWrite8(SioIndexPort, 0x72);
 temp_data = loRead8(SioDataPort);

 temp_data &= 0x1f;
  temp_data |= 0xC0;
 //minute or second BIT7 1->second  0->minute
 if(ite_watch_dog_element->wdt_unit == 1){
    temp_data &= 0x7f;
 }

 loWrite8(SioIndexPort, 0x72);
 loWrite8(SioDataPort, temp_data);


 //Clear Status
 loWrite8(SioIndexPort, 0x71);
 temp_data = loRead8(SioDataPort);
 temp_data &= 0xfe;
 loWrite8(SioIndexPort, 0x71);
 loWrite8(SioDataPort, temp_data);

 //Count
 loWrite8(SioIndexPort, 0x74);
 loWrite8(SioDataPort, 0x0);
 loWrite8(SioIndexPort, 0x73);
 loWrite8(SioDataPort, ite_watch_dog_element->wdt_time);
        //printf("wdt start:%x\n",loRead8(data));
}
```

6.1.2

```
//wdt stop
if(ite_watch_dog_element->wdt_operator==STOP_WDT){
  IoWrite8(SioIndexPort, 0x74);
  IoWrite8(SioDataPort, 0x0);
  IoWrite8(SioIndexPort, 0x73);
  IoWrite8(SioDataPort, 0x0);
}
```

7 GPIO

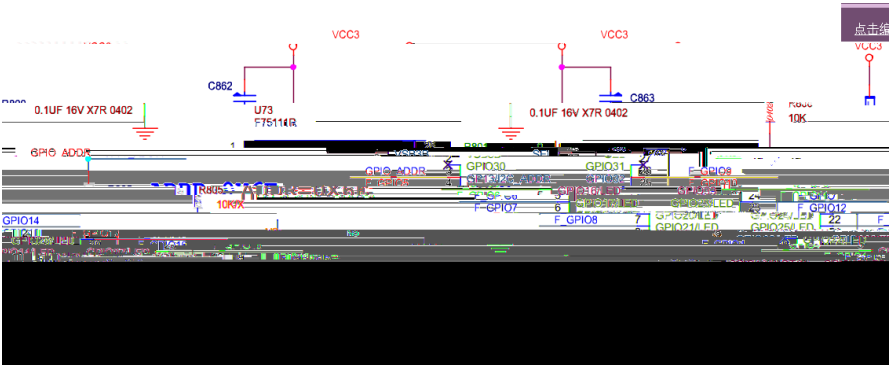
7.1 GPIO

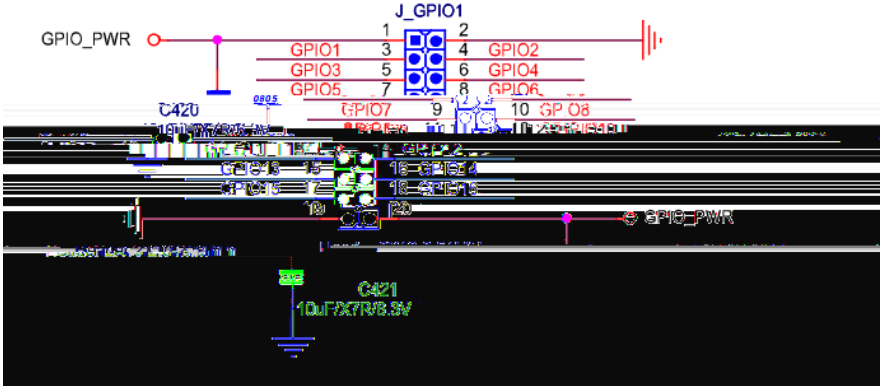
FINTEK 7511 GPIO h 7511 h PCH SMBUS FINTEK 7511.

7.1.1 FINTEK 7511 SPEC

F75111_V027P.pdf

7.2





					USB3	USB2	COM	LAN	PCI	PCIe
AIoT0-W680	W680	4 DDR5	4(4)	4SATA	10	4	6	2	2	5
AIoT0-W680D	W680	4 DDR5	4(4)	4SATA	10	4	6	2	1	6

