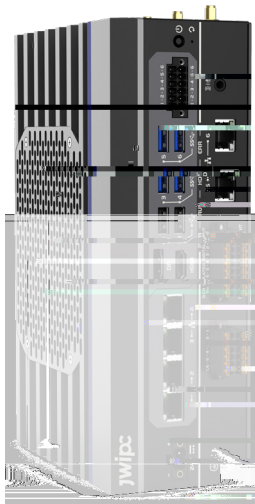
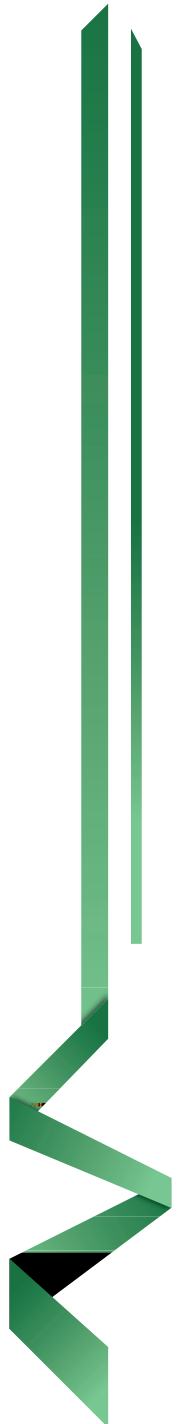


PAS-7512



Version 1.0






A





ESD

(ESD, electrostatic sensitive devices)



- ESD
- ESD
- ESD
- ESD
- ESD

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[illegible]

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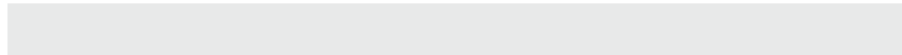
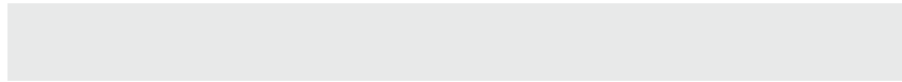
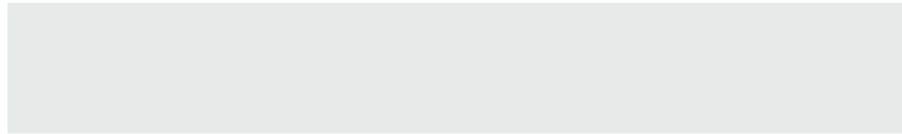
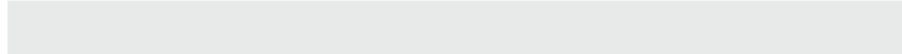
9.1 30



1

1.1

PAS-7512											
z	Intel LGA1700		12&13		i9/i7/i5/i3/G		CPU		TDP 65W		
z	2 DDR5-SODIMM		64GB								
z	DP+HDMI										
z	4		USB3.0		2		USB2.0		USB3.0		1.5A
z	12pin		485/232		1		3		CAN		
z	4		:2		Intel i226-V		2.5Gb RJ45		1		Intel i219LM RJ45
i210-AT RJ45					POE						1 Intel
z	1		M.2 NVME X4		2242/2280		1		M.2 USB+PCIEx1 3042/3052		
z			SLB9670		TPM2.0						
z	1		4*COM		16GPIO		1*AUDIO		1*CAN		M.2 2230 2242/2280
z	PAS-7512				POE				, PoE		Q b



2	COM	-	2	RS232/485/422	2
	PSE	-	POE+	4	
	GPIO	-	16	I/O	8 8
		-	2	Intel i226-V 2.5Gb R45	
		-		Mic-in,Line-out)	
		-	1	M.2 Key-E 2230	Wif BT
		-	M.2 2280/2242 NVME	PCIE X1)	
	USB	-		USB2.0 Type A	
		-	255	/	
		-	DC 24V 2Pin		
BIOS		-	AMI UEFI BIOS		
		-	Win10 x64 Win11 x64 Linux Ubuntu 21.04		
L*W*H		-	230mm(L)*165mm(W)*71.5mm(H)		

2

2.1

2.2

20% 85%

50cm

0 40

10cm

12

2.3

3

3.1

□ 19"



□ VESA

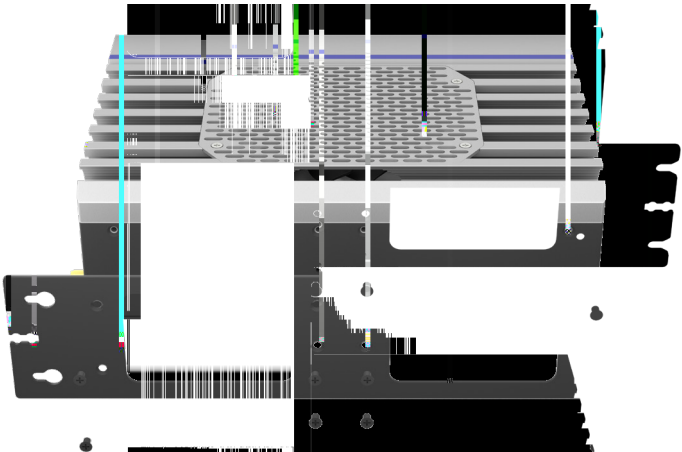
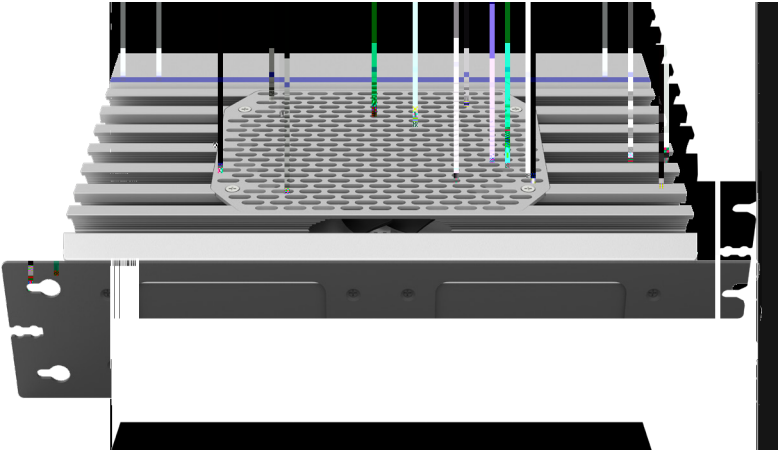
DIN



3.2 PAS-7512

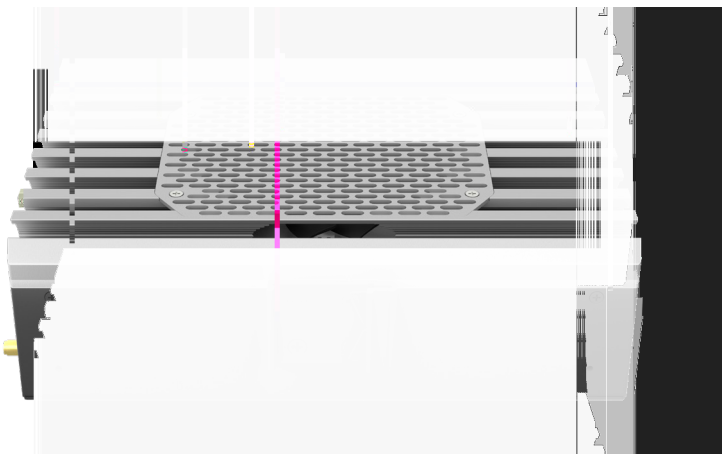
mm

3.3 PAS-7512



2 , M3x5.6

3.4 PAS-7512



3.5 PAS-7512



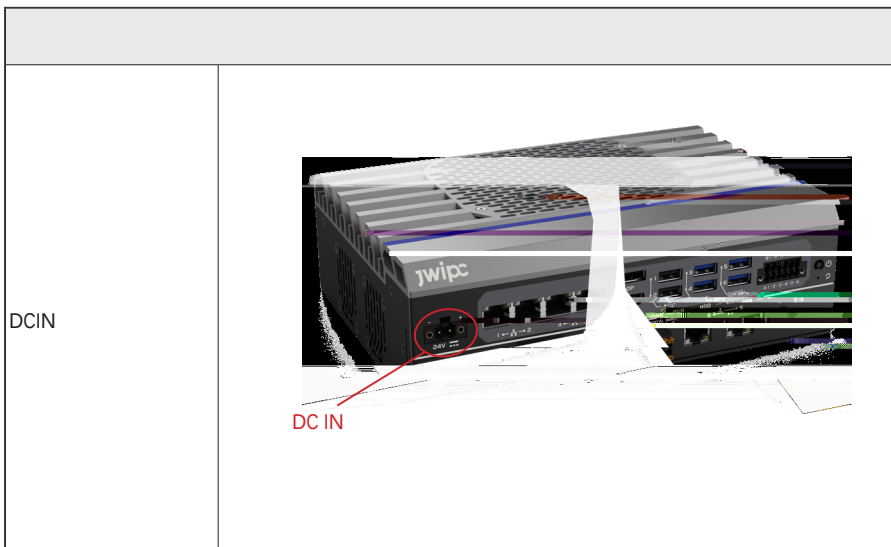
4

4.1



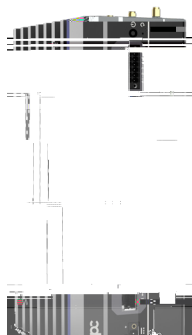
	I/O	I/O	USB
--	-----	-----	-----

4.2

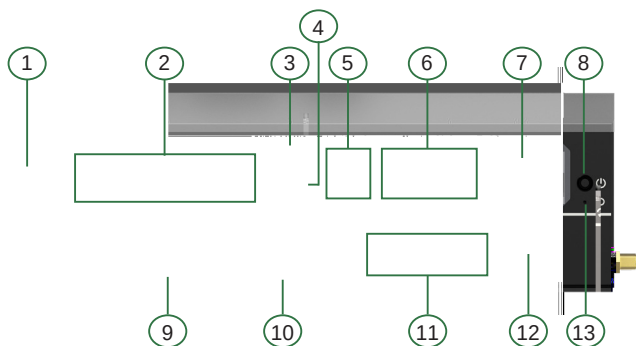


5

5.1 PAS-7512



5.2 PAS-7512 IO



1. DC_IN DC
2. LAN RJ45
3. DP DP
4. HDMI
5. USB2.0 USB2.0
6. USB3.0 USB3.0
7. COM_CAN RS232+ RS485+CAN
8. Power Button
9. COM RS232+ RS422+ RS485
10. DIO /
11. LAN RJ45
12. Combo jack Combo
13. RECOVER

5.3

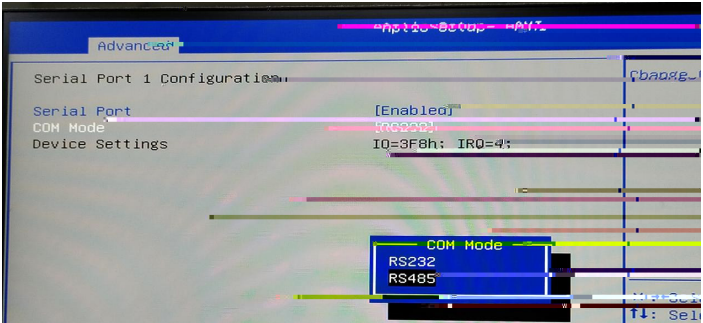
		
	1	DC-
	2	DC+

5.4 COM_CAN

	PIN					
		RS232	RS422	RS485	CAN	
	A1	COM1_DCD	/	COM1_485-	/	/
	A2	COM1_SIN	/	COM1_485+	/	/
	A3	COM1_SOUT	/	/	/	/
	A4	/	/	/	/	GND
	A5	/	/	/	/	GND
	A6	/	/	/	/	PWRBTN#
	B1	COM2_DCD	/	COM2_485-	/	/
	B2	COM2_SIN	/	COM2_485+	/	/
	B3	COM2_SOUT	/	/	/	/

COM1/2 RS232/485

BIOS



5.5 COM3_4

	PIN	RS232	RS422	RS485	
	C1	COM3_DCD	COM3_422TX-	COM3_485-	/
	C2	COM3_SIN	COM3_422TX+	COM3_485+	/
	C3	COM3_SOUT	COM3_422RX+	/	/
	C4	COM3_DTR	COM3_422RX-	/	/
	C5	/	/	/	GND
	C6	/	/	/	/
	D1	COM4_DCD	COM4_422TX-	COM4_485-	/
	D2	COM4_SIN	COM4_422TX+	COM4_485+	/
	D3	COM4_SOUT	COM4_422RX+	/	/
	D4	COM4_DTR	COM4_422RX-	/	/
	D5	/	/	/	GND
	D6	/	/	/	/

COM3/4 RS232/RS422/RS485

5.6 DIO



	1	DI_0	2	DO_0
	3	DI_1	4	DO_1
	5	DI_2	6	DO_2
	7	DI_3	8	DO_3
	9	DI_4	10	DO_4
	11	DI_5	12	DO_5
	13	DI_6	14	DO_6
	15	DI_7	16	DO_7
	17	VCC	18	GND

5.7

5.7.1 ATX-M1

1-2	ATX Mode
2-3	AT Mode

5.7.2 FAN

1	GND
2	+5V
3	PWM_IN
4	PWM_OUT

5.7.3 BAT

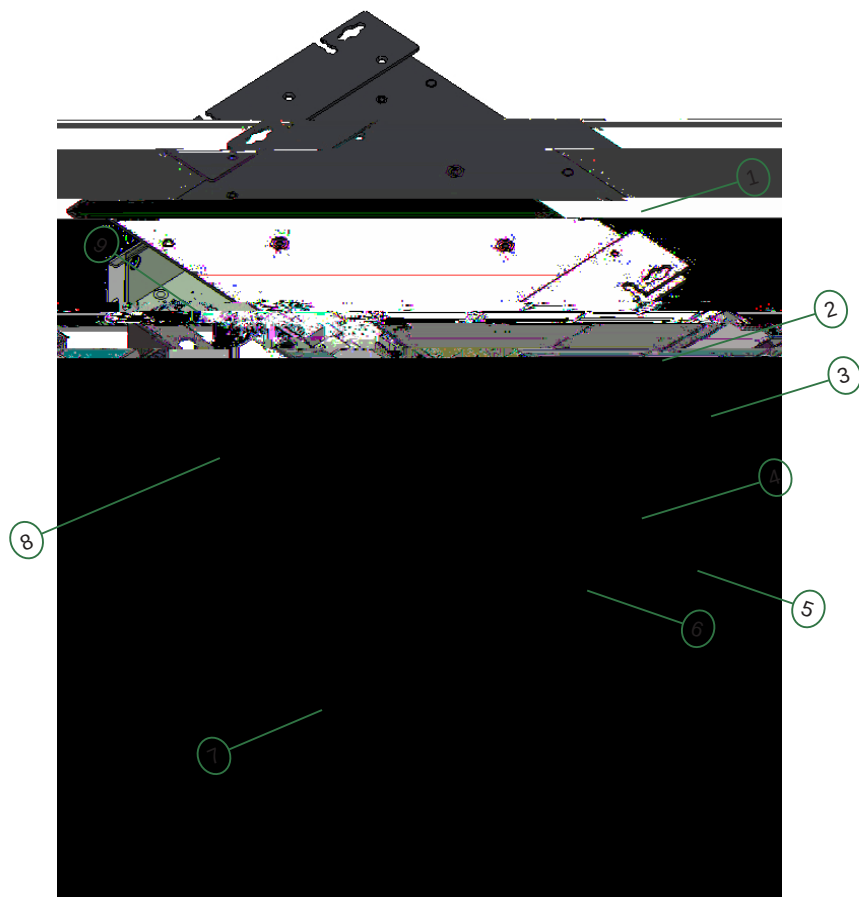
1	BAT+
2	BAT-

5.7.4 PWRBTN

1	+
2	GND

6

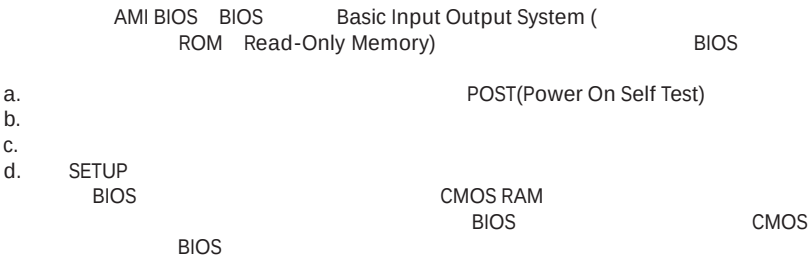
6.1 PAS-7512



1		2		3	
4		5		6	
7		8	IO	9	

7 BIOS

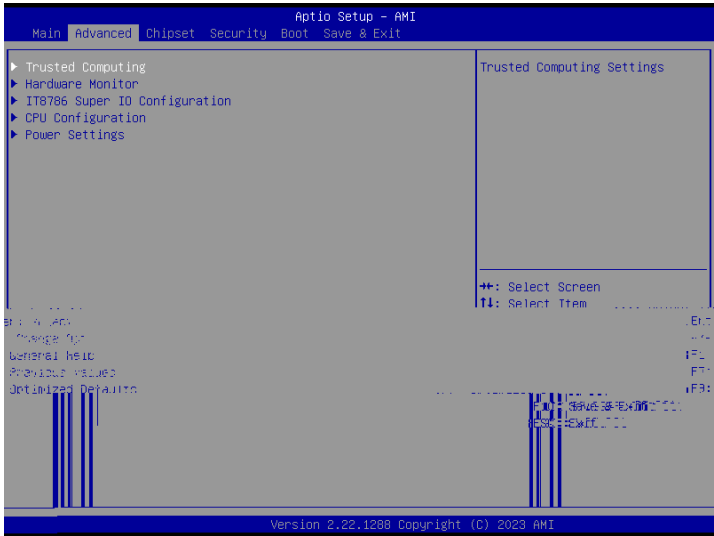
7.1 BIOS



7.2 BIOS

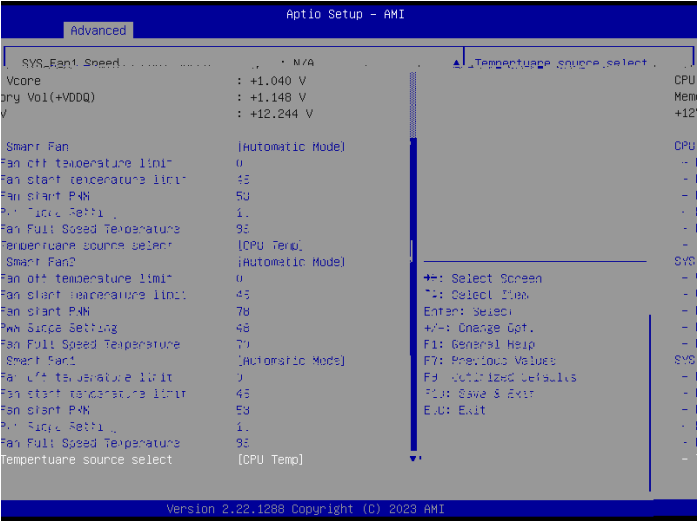


7.5 Adyaqced



Tuxvwed Cr p sxwlg j		
Haud zaue Mrqlwru		
IT8786 Sxseu IO Crq j xuawlrq	Super IO	
CPU Crq j xuawlrq	CPU	
Pr zeu Sewwlg jv		

Hardware Monitor <Enter>



CPU Spaw Faq

CPU

Full on Mode, Automatic Mode, Manual Mode.

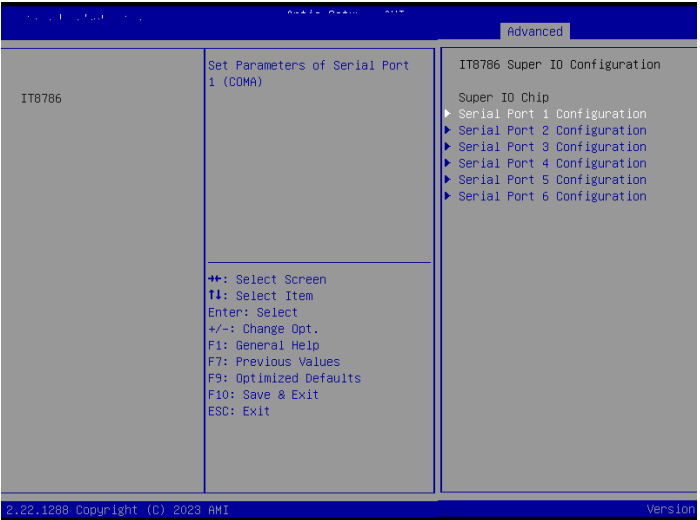
SYS Spaw Faq2/1

Full on Mode, Automatic Mode, Manual Mode.

Temp sensor vrruce vrruce

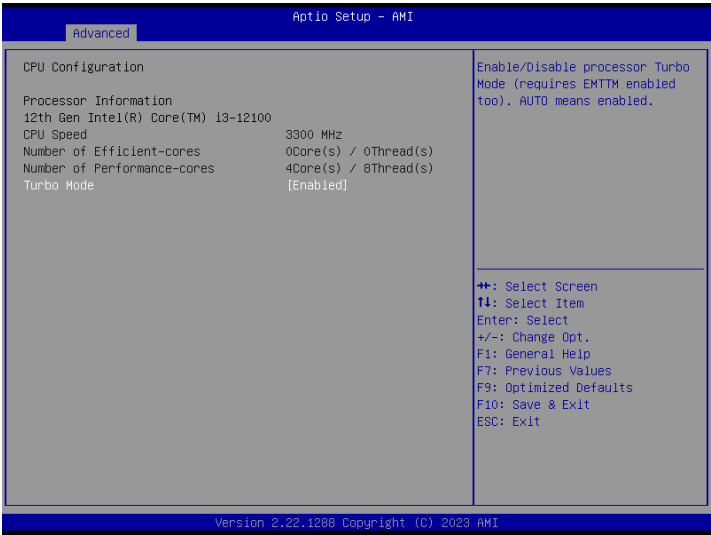
CPU Temp, SYS Temperature.

IT8786 Super IO Configuration <Enter>



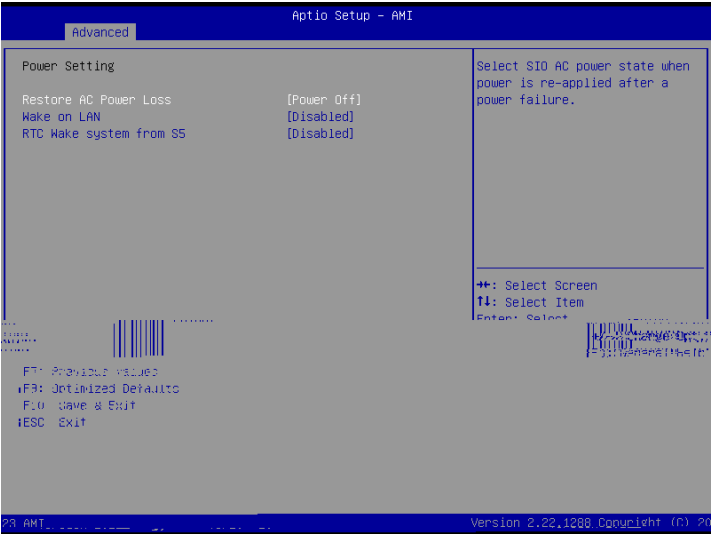
Serial Port 1/2/3/4/5/6 Configuration

CPU Configuration <Enter>



Processor Information
Turbo
Enabled, Disabled.

Power Configuration <Enter>



Restore AC Power Loss

Power Off, Power On, Last State.

Wake on LAN

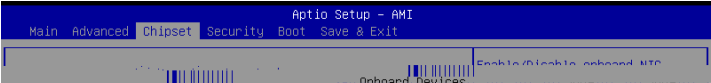
Disable, Enable.

RTC Wake system from S5

RTC

Disable, Enable.

7.6 CklsveW



PCH LAN Cr qwu r 00eu(I219)

Enabled,Disabled.

I226_1/2/3

Disable,Enable.

Laq Br r wROM

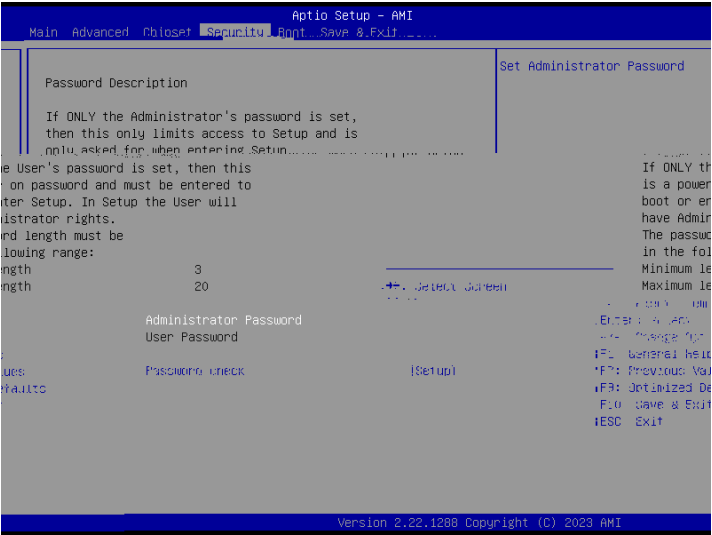
ROM

Disable,Enable.

Pul p au | Dlvs0a |

Auto,Enabled,Disabled.

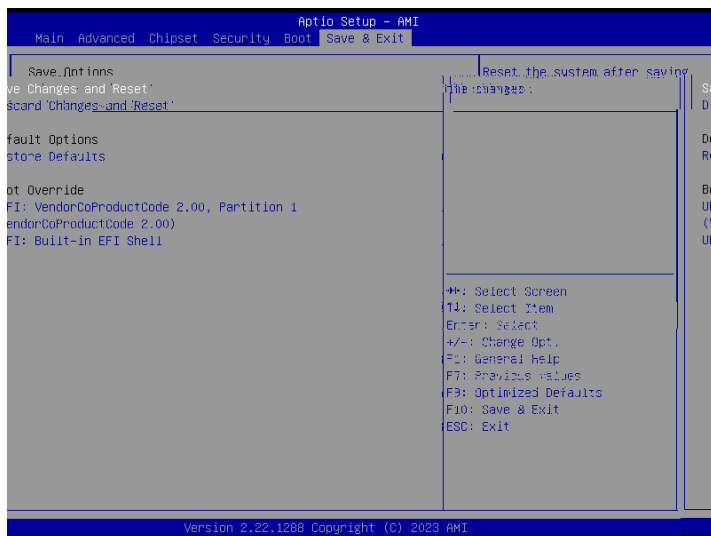
7.7 Security



Administrator Password

1. Administrator Password <Enter>

7.9 Saye&E{Iw



Saye Ckaq j ev aqd Review

Divcaud Ckaq j ev aqd Review

Revue DefaxoW

8

8.1 WDT

WDT	SIO	LDN DEV7,	0X72 BIT7	1	0
0XF3	0X72 BIT7	1 0XF3	0X20	32	

8.1.1

```
//enter ite conf g
    IoWrite8(SioIndexPort,0x87);
    IoWrite8(SioIndexPort,0x01);
    IoWrite8(SioIndexPort,0x55);
    IoWrite8(SioIndexPort,0x55);

//select watchdog device
    IoWrite8(SioIndexPort,0x07);
    IoWrite8(SioDataPort,0x07);
    IoWrite8(SioIndexPort, 0xF1);
    temp_data = IoRead8(SioDataPort);
    temp_data &= 0xBB;
    temp_data |= 0x44;
    IoWrite8(SioIndexPort, 0xF1);
    IoWrite8(SioDataPort, temp_data);

//MAP to GP10
    IoWrite8(SioIndexPort, 0xF4);
    temp_data = IoRead8(SioDataPort);
    temp_data &= 0xC0;
    temp_data |= 0x08;
    IoWrite8(SioIndexPort, 0xF4);

//wdt start
if(ite_watch_dog_element->wdt_operator==START_WDT){

//clear status
IoWrite8(SioIndexPort, 0x71);
temp_data = IoRead8(SioDataPort);
temp_data &= 0xfe;
IoWrite8(SioIndexPort, 0x71);
IoWrite8(SioDataPort, temp_data);

IoWrite8(SioIndexPort, 0x72);
temp_data = IoRead8(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;
}

IoWrite8(SioIndexPort, 0x72);
IoWrite8(SioDataPort, temp_data);
```

```

//Clear Status
IoWrite8(SioIndexPort, 0x71);
temp_data = IoRead8(SioDataPort);
temp_data &= 0xfe;
IoWrite8(SioIndexPort, 0x71);
IoWrite8(SioDataPort, temp_data);

//Count
IoWrite8(SioIndexPort, 0x74);
IoWrite8(SioDataPort, 0x0);
//for 15 times to A dataPort
IoWrite8(SioIndexPort, 0x73);
IoWrite8(SioDataPort, 0x73);
//for 15 times to A dataPort
IoWrite8(SioIndexPort, 0x73);
IoWrite8(SioDataPort, ite_watch_dog_element->wdt_time);
//printf("wdt start:%x\n",IoRead8(data));
}

```

8.1.2

```
//wdt stop
```

Bit	Description
7	WDT Time-out Value Select 1
6	WDT Output through KRST
5	WDT Time-out Value Select 0
4	RESERVED
3-0	Interrupt Level Select for WDT

Please refer to Table 8-15 "Interrupt Level Mapping Table" on page 85.

8.10.8. Watch Dog Time-out Value (USR) Register (Index=73h)

Bit	Description
7-0	WDT Time-out Value

8.10.9. Watch Dog Time-out Value (USR) Register (Index=74h)

Bit	Description
7-0	WDT Time-out Value

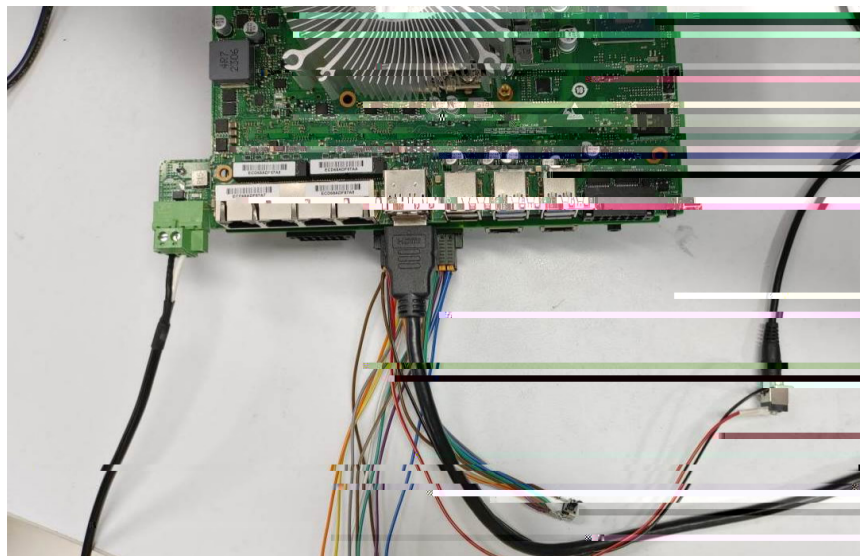
8.2 GPIO

1

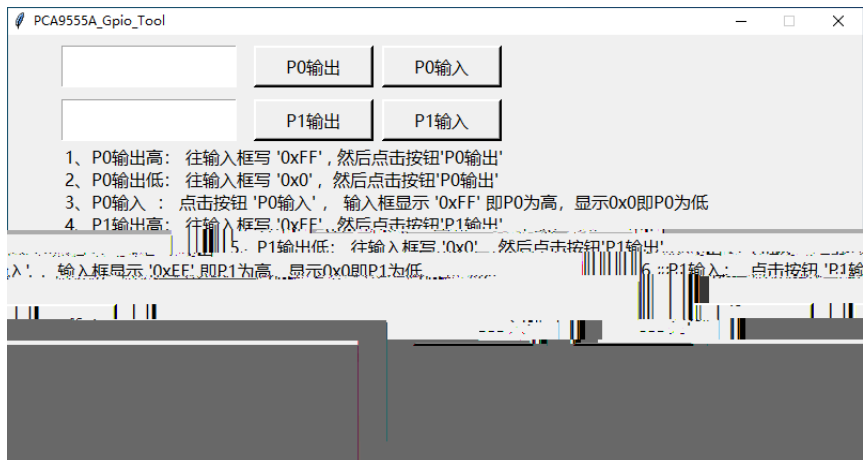
5V

LED

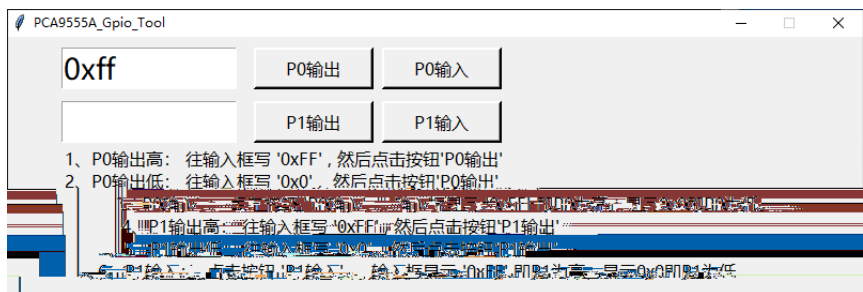
5V 12V 24V



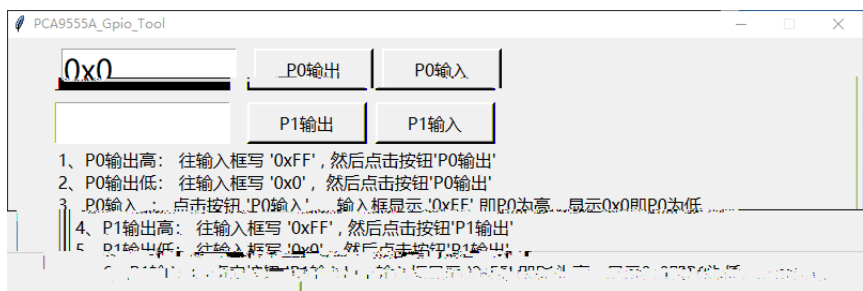
2 PCA9555A_Gpio_Tool



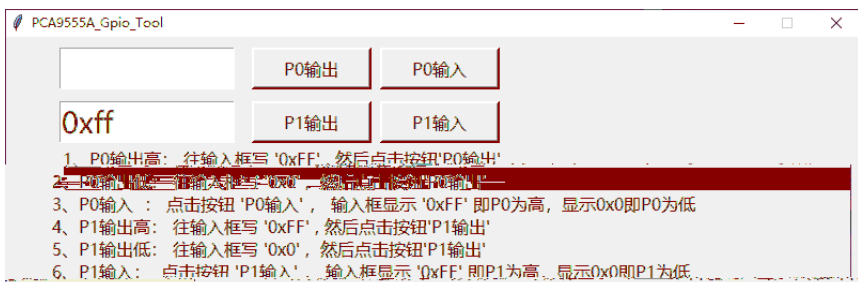
3 “ P0 ” 0xf



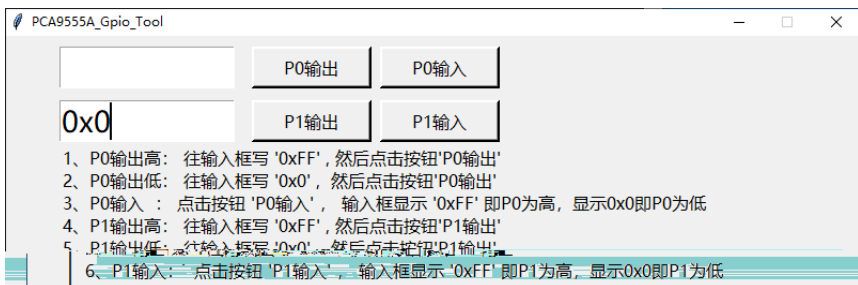
4 “ P0 ” 0x0



5 “ P1 ” 0xf “ P1 ” 0xf “ P1 ”



6 “ P1 ” 0x0 “ P1 ”



Sample code PCA9555A_Gpio_Tool_LED_Program_source_code

9

9.1

		/
		1 2 12
	“ ”	
		1 2 3
		Winpe
I O		PCI ISA
	BIOS	Setup BIOS Setup BIOS
BIOS		
Boot device not found	BIOS	BIOS “ ” (Boot)
USB	USB 2.0 USB 2.0	USB 2.0
	USB	1 Support USB Legacy 2 USB