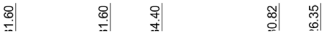
Version 1.0

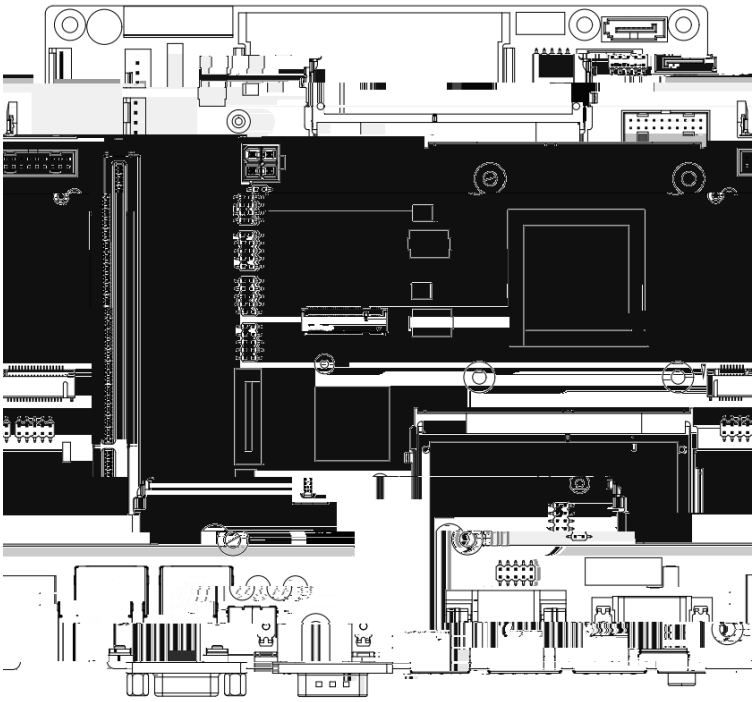
6.1 wdt

1.2

1.4 IO



1.5



( )

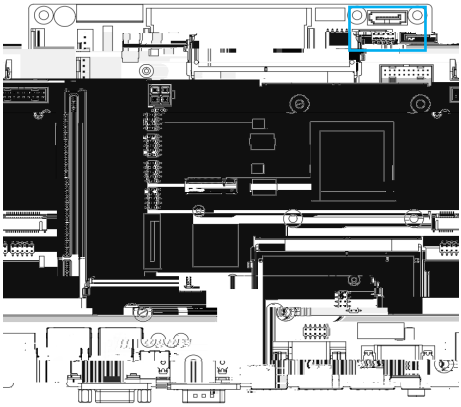
1.6 IO

( )

- VGA: VGA
- HDMI: HDMI
- USB2.0: USB2.0
- USB3.0: USB3.0
- LAN: RJ45
- Audio:

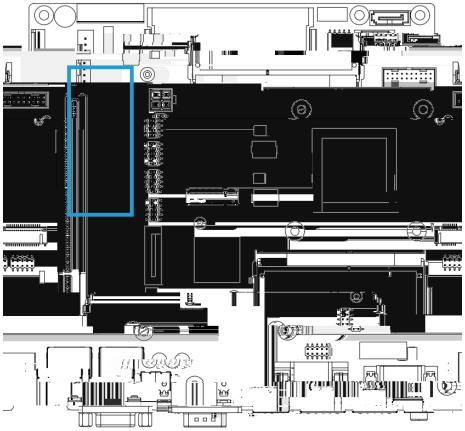
2.2

2.2.1 Serial ATA



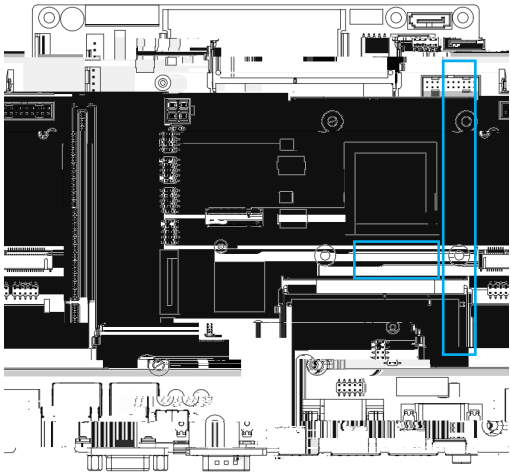
Serial ATA
Serial ATA
Serial ATA

2.2.2 M.2 B-KEY



M.2 B-Key 5G
30

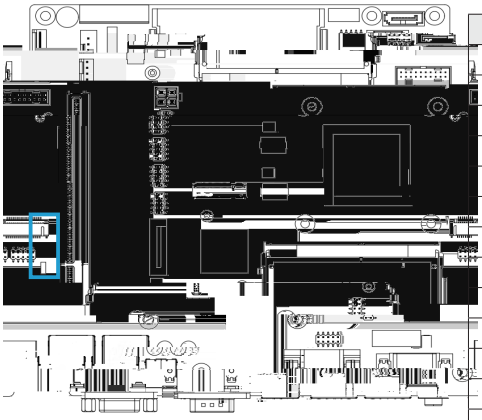
2.2.3 PCIe



1 MIni-PCIe
1 PCIe ×16

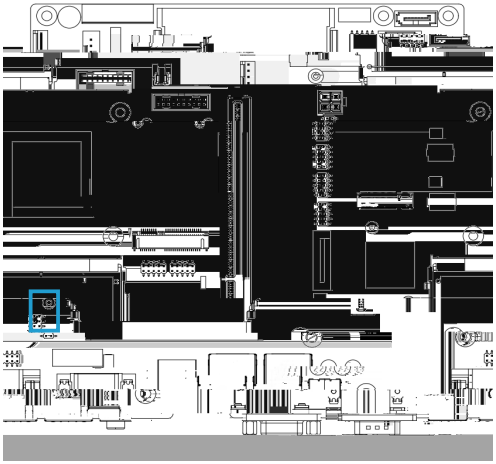
3

3.1 JLVDS1



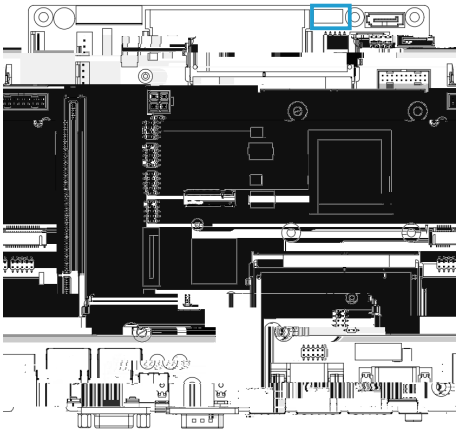
1	LVDS Power	2	LVDS Power
3	LVDS Power	4	GND
5	GND	6	GND
7	LVDS1_D0N	8	LVDS1_D0P
9	LVDS1_D1N	10	LVD1S_D1P
11	LVDS1_D2N	12	LVDS1_D2P
13	GND	14	GND
15	LVDS_CLK1N	16	LVDS1_CLK1P
17	LVDS1_D3N	18	LVDS1_D3P
19	LVDS1_D4N	20	LVDS1_D4P
21	LVDS1_D5N	22	LVDS1_D5P
23	LVDS1_D6N	24	

3.2 INVT1



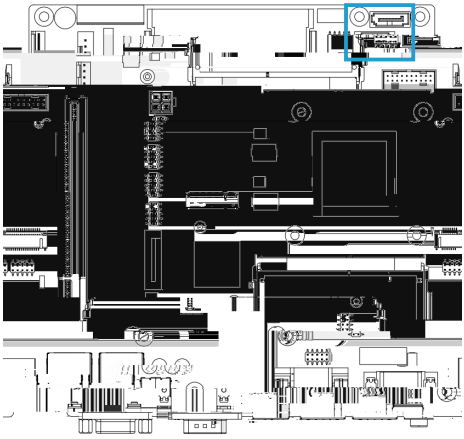
1	+V12
2	GND
3	BKL_EN
4	BKL_PWM
5	+V5

3.3 SATA_POWER1



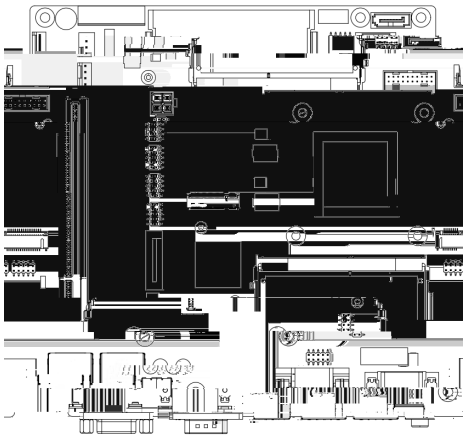
1	+V5
2	GND
3	+V12
4	GND

3.4 SATA1/SATA2

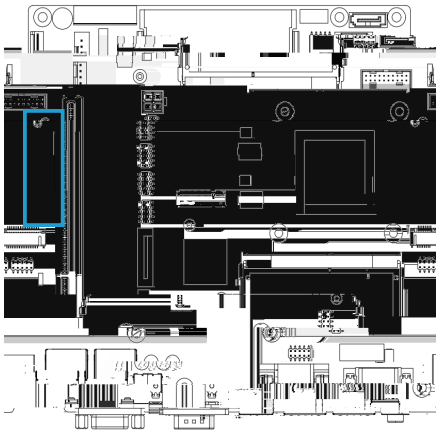


1	GND
2	SATA_TX_P
3	SATA_TX_N
4	GND
5	SATA_RX_N
6	SATA_RX_P
7	GND

3.5 GPIO_PWR1

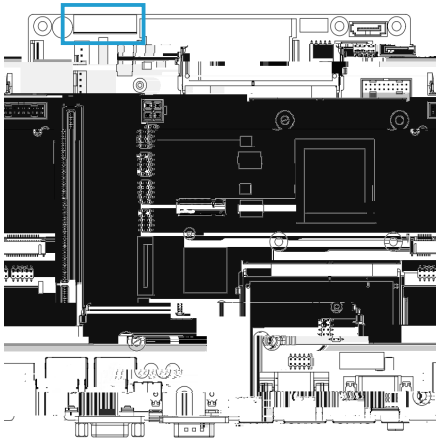


3.7 COM3-6



1	COM_SIN	2	COM_DCD
3	COM_DTR	4	COM_SOUT
5	COM_DSR	6	GND
7	COM_CTS	8	COM_RTS
		10	COM_RI

3.8 COM7_14



1	GND	2	GND
3	COM7_SOUT	4	COM11_SOUT
5	COM7_SIN	6	COM11_SIN
7	GND	8	GND
9	COM8_SOUT	10	COM12_SOUT
11	COM8_SIN	12	COM12_SIN
13	GND	14	GND
15	COM9_SOUT	16	COM13_SOUT
17	COM9_SIN	18	COM13_SIN
19	GND	20	GND
21	COM10_SOUT	22	COM14_SOUT
23	COM10_SIN	24	COM14_SIN
25	GND	26	GND

3.9 USB2_2

3.12 ATX_IN1

4 BIOS

4.1 BIOS

BIOS BIOS Basic Input Output System(
ROM Read-Only Memory) BIOS

a. POST(Power On Self Test)
b.
c.
d. SETUP
BIOS CMOS RAM
BIOS CMOS
BIOS

4.2 BIOS

BIOS Setup BIOS

SETUP

a. SETUP
b.

BIOS BIOS

4.2.1 BIOS

<DEL> BIOS

Press <F2> to enter SETUP

Press <F7> to enter Boot Menu

4.2.2

<Enter> <F1> <Esc>

← / →	
↑ / ↓	
+/ -	/
<Enter>	
<ESC>	BIOS SETUP
<F1>	
<F9>	
<F10>	CMOS

4.3

主页 设备 高级 安全 启动 退出
帮助信息
固件厂商 百数软件
固件版本 百数CRB2.0
UEFI版本 UEFI 2.8
发布版本 00.05
固件编译时间 10/18/2024
主板信息 D2000/B
PBF版本 1.72
网卡物理地址 98-0E-24-F0-52-B2
网卡物理地址2 98-0E-24-F0-52-B3
处理器信息
内存信息
系统日期和时间
选择语言 <中文>
F1 帮助 ↑↓ 选项条目 -/+ 更改设置
Esc 退出 ↔ 选择菜单 Enter 选择子菜单
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4.4

GMAC

SATA

SATA

PCI

PCI

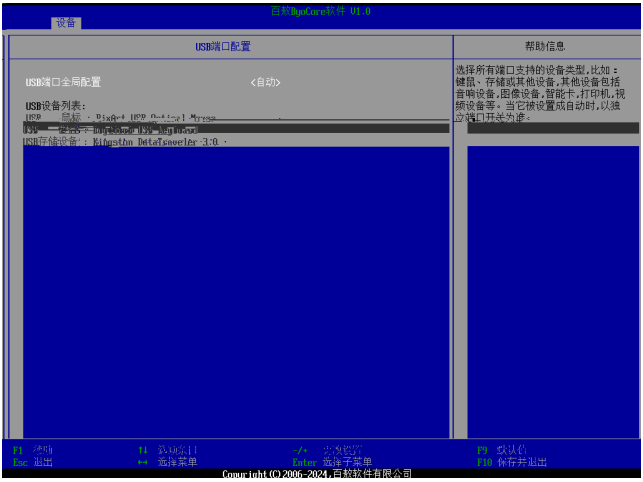
USB

USB

SIO

SIO

USB <Enter>



USB

:

,

SIO <Enter>

CPU/SYS

CPU/SYS

CPU/SYS

CPU/SYS

CPU/SYS

CPU/SYS

CPU/SYS

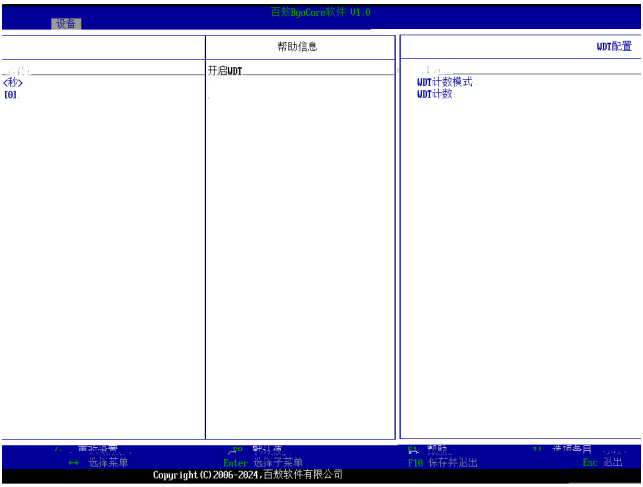
CPU/SYS

WDT

<Enter>

1/2/3/4/5/6

WDT <Enter>



WDT

WDT

WDT

WDT

WDT

WDT

0-255

4.5

LVDS

LVDS

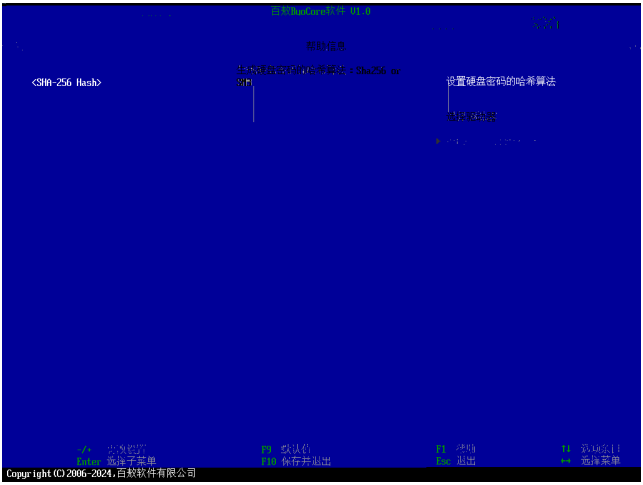
1 2 337 ľ Ł Ǟ f Ǯ ¤ d̪ d̪ d̪

4.6

8 20

: Enter

<Enter>



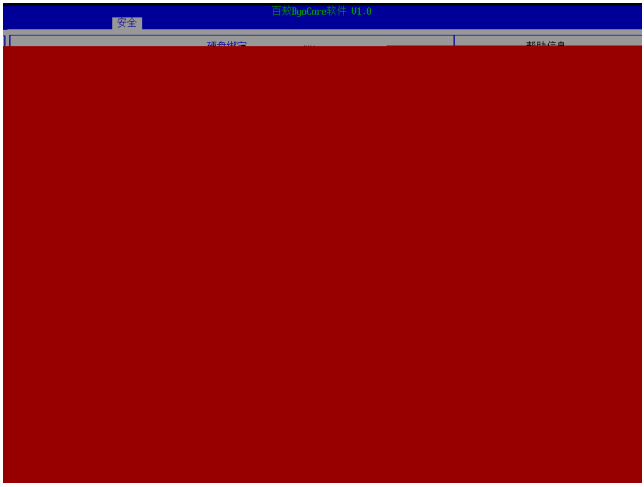
SHA-256 Hash　SM3 Hash

<Enter>

<Enter>

安全
安全启动
帮助信息
系统模式 设定模式
安全启动 <关闭>
恢复出厂设置 <进入>
重置为设定模式 <进入>
进入审计模式 <进入>
进入部署模式 <进入>
安全设置项管理
[打开] 打开安全启动，BIOS 会阻止未被授权的系统被调起。[关闭] 关闭安全启动。
F1 帮助
Esc 退出
↑↓ 选项条目
↔ 选择菜单
-/+ 更改设置
Enter 选择子菜单
F9 默认值
F10 保存并退出

<Enter>



4.7

NunLock
NumLock

SHELL
SHELL

<Enter>

<Enter>

5

X \AUTORUN.EXE X

( )

6 WDT

6.1 WDT

```
#define SuperIo_Index_Port 0x2E
#define SuperIo_Data_Port 0x2F
#define GPIO_LDN8_DEVICE 0x08
UINT8 Data8
//a.        Super IO    Configuration Mode
IoWrite8(SuperIo_Index_Port, 0x87);
IoWrite8(SuperIo_Index_Port, 0x87);
//b.                    GPIO, LDN 8
IoWrite8(SuperIo_Index_Port, 0x07);
IoWrite8(SuperIo_Data_Port, GPIO_LDN8_DEVICE);
//c. Enabled WDT
IoWrite8(SuperIo_Index_Port, 0x30);
IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) | 0x01);
//d.        WDT                         Register 0xF0    Bit3          1                       0
IoWrite8(SuperIo_Index_Port, 0xF0);
//
IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) | 0x08);
//
//IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) & 0xF7);
//e.        WDT                 5    /
IoWrite8(SuperIo_Index_Port, 0xF1);
IoWrite8(SuperIo_Data_Port, 0x5);
//f.        Super IO    Configuration Mode
IoWrite8(SuperIo_Index_Port, 0xAA); //        Super IO Configuration Mode        SuperIO
                                    ,                   Configuration Mode
```

```
int file;
char filename[20];
unsigned char reg_addr;
```

```
I2C_SLAVE_ADDR  < 0
ror("Failed to acquire bus access talk to slave");
se(file);
(1);
}
```

3 6 GPIO0 GPIO0 I0.0

```
unsigned char num = 0;
```

4 read ioctl

```
unsigned char read_data;
                close(file);
                exit(1);
            }
            unsigned char read_pin_state = 0;
            read_pin_state = (read_data >> 0) & 0x01;
            printf("引脚0的输出为: %d\n", read_pin_state);
```

(9)

1

```
#define I2C_DEV "/dev/i2c-1" //定义总线
#define I2C_SLAVE_ADDR 0x20  //定义从机地址

#define I2C_REG_CONFIG_PORT0 0x06 //配置 GPIO0 的模式寄存器
#define I2C_REG_INPUT_PORT0 0x00 //获取 GPIO0 输出状态的输入寄存器
```

2

```
int file;
char filename[20];
snprintf(filename, 19, I2C_DEV);
file = open(filename, O_RDWR);
if(file < 0){
    perror("Failed to open the i2c bus");
    exit(1);
}
```

```
ioctl(file, I2C_SLAVE_ADDR, < 0 ...
    perror("Failed to acquire bus access to ...");
    close(file);
    exit(1);
}
```

3 6 GPIO0 GPIO0

```
int i2c_smbus_write_byte_data(file, I2C_REG_CONFIG_PORT0, 0x01) < 0
{
    perror("Failed to set configuration for port 0");
    exit(1);
}
```

```
int Port0 = i2c_smbus_read_byte_data(file, I2C_REG_INPUT_PORT0);
```

4 GPIO GPIO0 I0.0

```
int currentStatePin = ((Port0  >> 0) & 0x01);
```

					USB3	USB2	COM	LAN	PCIe
JVC-8100	D2000/8	2 DDR4	3(3)	2SATA	4	4	2	2	2

产品中有毒有害物质的名称及含量