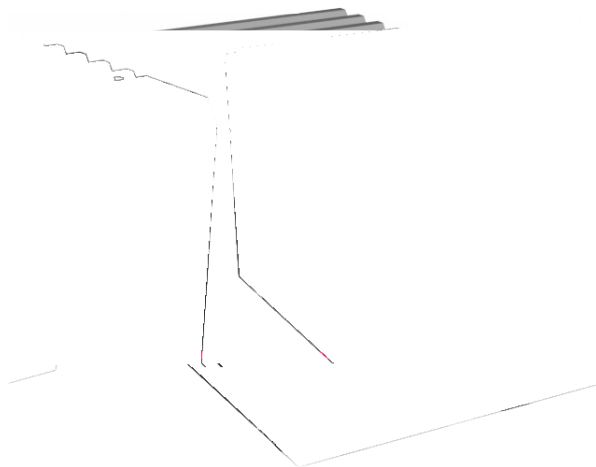
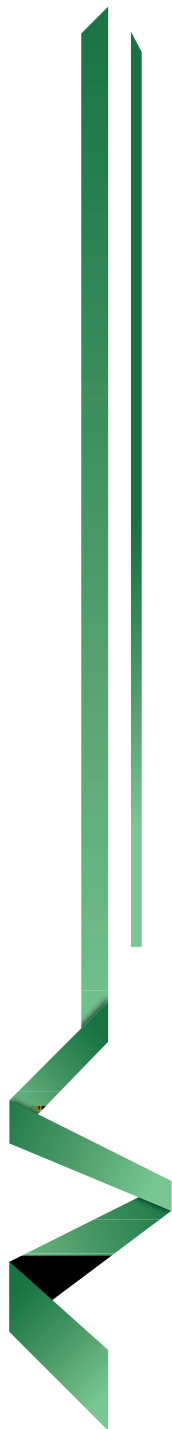


JVC-8100



Version 1.0



G

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h

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5.6.11 USB2_2 14

5.6.12 JFP1 14

5.6.13 ATX_IN1 15

5.6.14 GPIO_PWR1 15

6

1

1.1

VC-8100 D2000 h BOX h UOS h
H h h IO h H h h
g

1.2

	- VC-8100	- VC-8100
	- D2000/8 2.3GHz 8C 25W	
	- 2 x 260-pin DDR4 2666MHz SODIMM h max 64GB	
	- 2 x 2.5 d HDD/SSD	
	- h LVDS - 1 x VGA h VGA 1920*1200@60Hz - 1 x HDMI h HDMI 4096*2160@24Hz	
	- 1 x Mic-in h 1 x Line-out Ÿ amp Ÿ	
	- 2 x RJ45	
USB		

2

2.1

h
ÿ h h H H G

2.2

0% 90% G h H H -40µε 80µε h
H 50cm G 10cm h H H H



ÿ ÿ G h G 12 h G

2.3

2.3.1

I G G G h G
I G h G
I h G
I h G
I G h
G

2.4

h G G
I h H G
I G
I 50mm 100mm G
I (ÿ G
I G
I I/O 0.5V G

3

3.1

☐ 19" ☒ ☐ ☐ ☐ ☐
☒ ☐ VESA ☐ ☐
☐ _____

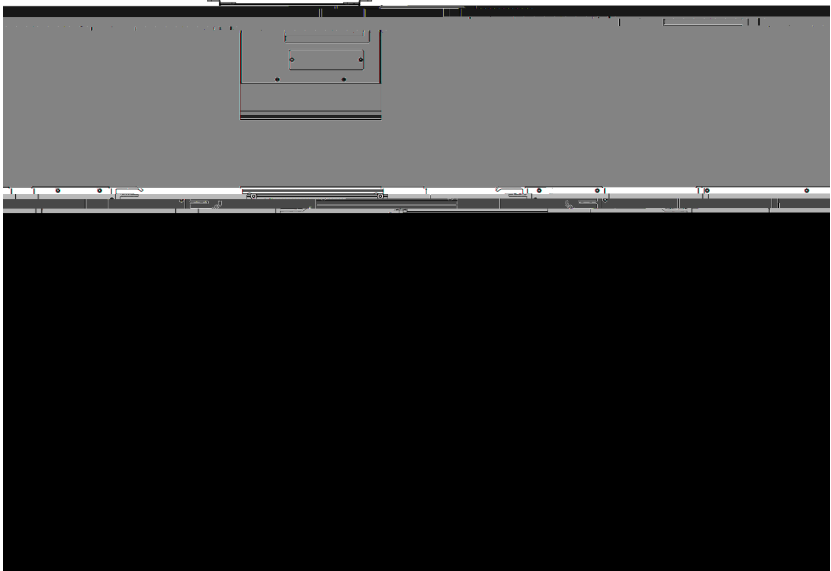
3.2

4 mm

3.2.1 JVC-8100



3.2.2 JVC-8100



4

4.1

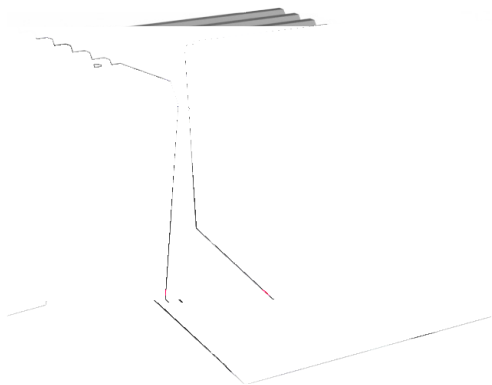
4.2

h	DCIN

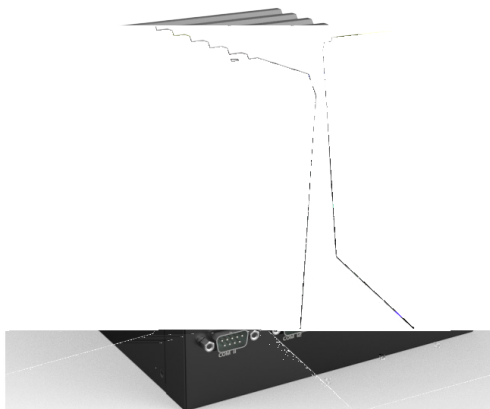
5

5.1

5.1.1 JVC-8100

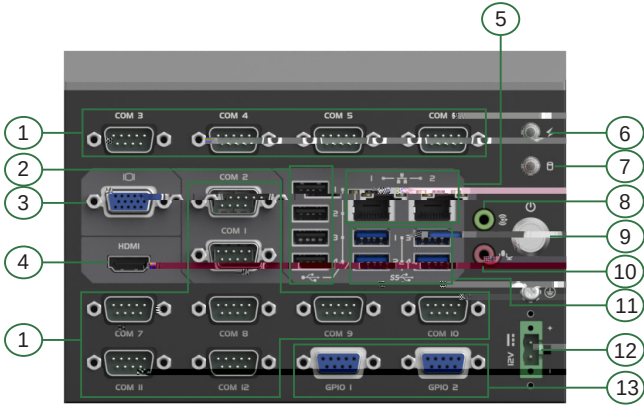


5.1.2 JVC-8100



5.2 IO

5.2.1 JVC-8100 IO

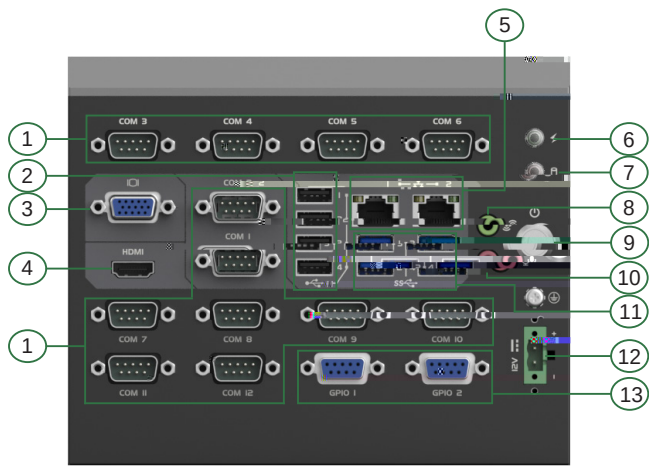


5.2.2 JVC-8100 IO



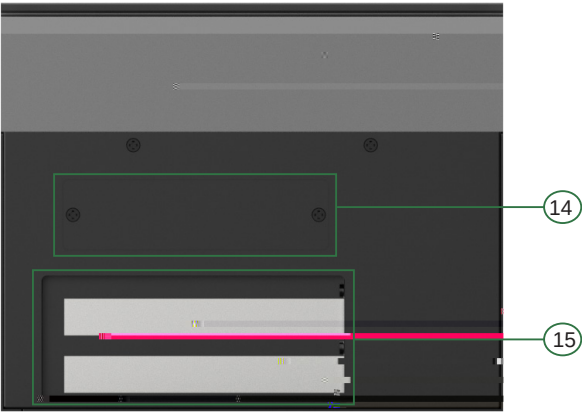
5.2.3 JVC-8100

IO



5.2.4 JVC-8100

IO



1. COM1/2/3/4/5/6/7/8/9/10/11/12 ❏
2. USB2.0 ❏ USB2.0
3. VGA ❏ VGA
4. HDMI ❏ HDMI
5. LAN1/2 ❏ RJ45
6. PWR ❏
7. HDD ❏
8. LINE OUT ❏
9. PWR Button ❏
10. MIC IN ❏
11. USB3.0 ❏ USB3.0
12. DC_IN ❏ DC
13. GPIO1/2 ❏ GPIO
14. Idoor ❏
15. Expansion slot ❏

5.3

		LED	
PWR	PC		PC
HDD			

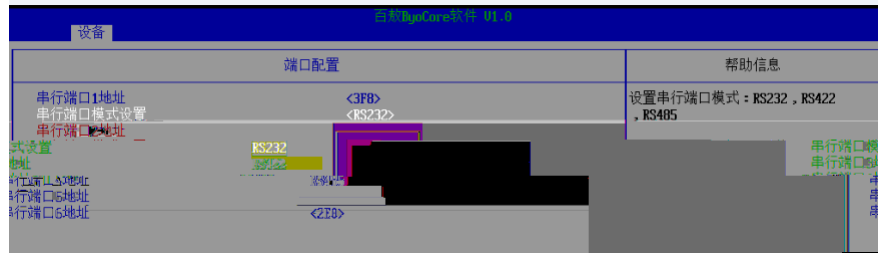
5.4 DC_IN

	+	DC_IN
	-	GND

5.5 COM1/2

	PIN	RS232	RS422	RS485
	1	DCD	422TX-	485-
	2	SIN	422TX+	485+
	3	SOUT	422RX+	/
	4	DTR	422RX-	/
	5	GND	/	/
	6	DSR	/	/
	7	RTS	/	/
	8	CTS	/	/
	9	RI	/	/

COM1-2 RS232/422/485 h BIOS h



5.6

5.6.1 JLVDS1

	1	+V3.3
	2	LVDS Power
	3	+V5

5.6.2 JLVDS2

	1	NC
	2	LVDS Power
	3	+V12

5.6.3 INVT1

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

5.6.4 LVDS1

	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	LVDS1_D1P
	11	LVDS1_D2N	12	LVDS1_D2P
	13	GND	14	GND
	15	LVDS1_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	LVDS1_D6P
	25	GND	26	GND
	27	LVDS1_CLK2N	28	LVDS1_CLK2P
	29	LVDS1_D7N	30	LVDS1_D7P

5.6.5 SATA1/2

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

5.6.6 SATA_POWER1

5.6.7 GPIO1

	1	GPIO1_0	2	GPIO1_4
	3	GPIO1_1	4	GPIO1_5
	5	GPIO1_2	6	GPIO1_6
	7	GPIO1_3	8	GPIO1_7
	9	PVCC_GPIO	10	GND

5.6.8 GPIO2

	1	GPIO2_0	2	GPIO2_4
	3	GPIO2_1	4	GPIO2_5
	5	GPIO2_2	6	GPIO2_6
	7	GPIO2_3	8	GPIO2_7
	9	PVCC_GPIO	10	GND

5.6.9 COM3/4/5/6

	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

5.6.10 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

5.6.11 USB2_2

	1	+V5	2	+V5
	3	USB2_HUB_N6	4	USB2_HUB_N5
	5	USB2_HUB_P6	6	USB2_HUB_P5
	7	GND	8	GND
			10	GND

5.6.12 JFP1

	1	UART1_TXD	2	UART1_RXD
	2			

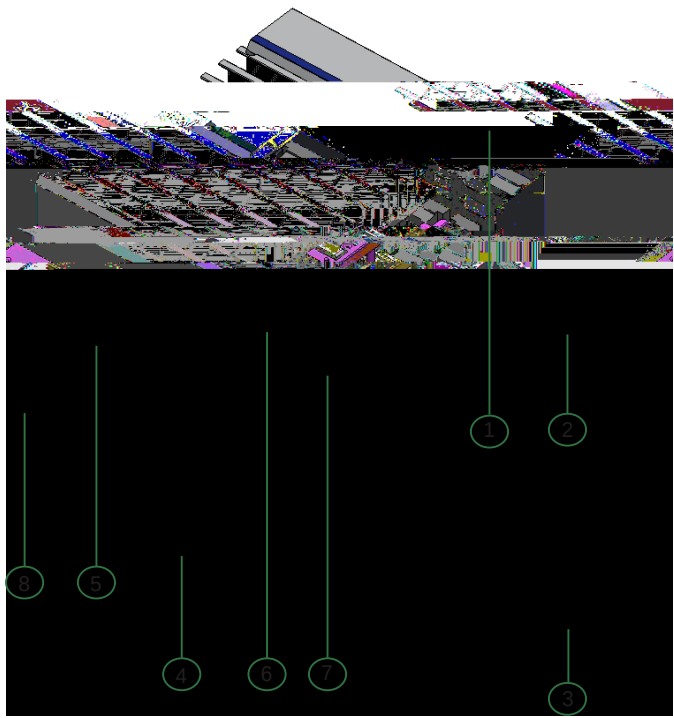
5.6.13 ATX_IN1

	1	GND	2	GND
	3	+12V	4	+12V

5.6.14 GPIO_PWR1

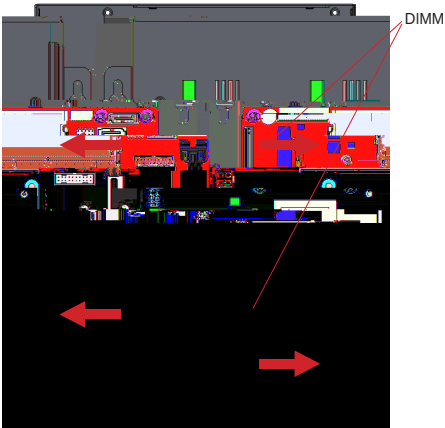
	1	+V5
	2	PVCC_GPIO
	3	+V3.3

6.2.2 JVC-8100



1		2		3	
4		5		6	
7		8			

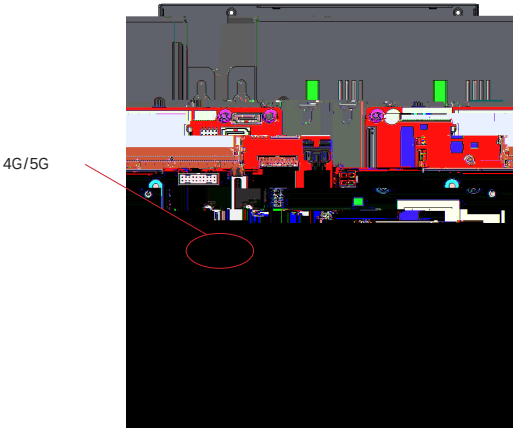
6.3



(h)

- 4. DIMM h G
- 1. h h h
- 2. h H
- 3. DIMM H
- 4. h DIMM 30° G

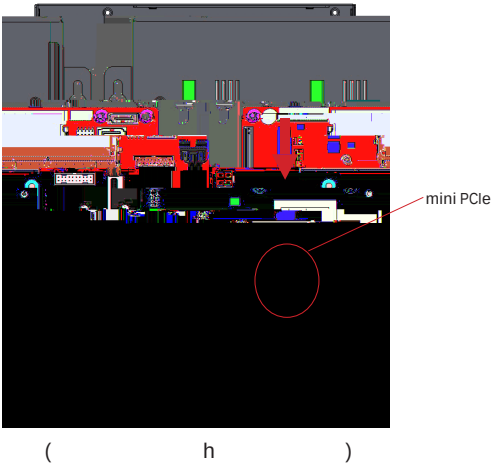
6.4 4G/5G



(h)

- 4. 4G/5G G
- 4. 4G/5G h 30° G

6.5 mini PCIe



mini PCIe G
mini PCIe h 30° G

7.3 BIOS

		BIOS
		BIOS
		BIOS
		BIOS

7.4



G

G

G

G

4 h G GMAC G

USB

<Enter>

G



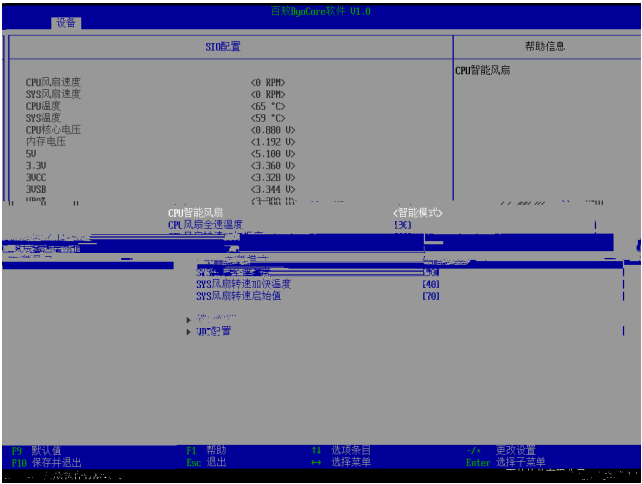
USB

h : H h h
, h h G h G
H H H H H H
G

SIO

<Enter>

G



CPU/SYS

CPU/SYS

G

4

H

H

G

CPU/SYS

CPU/SYS

G

CPU/SYS

CPU/SYS

G

CPU/SYS

CPU/SYS

G

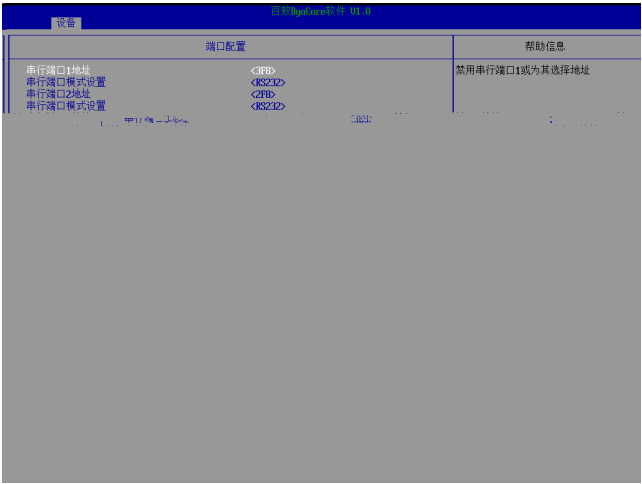
G

WDT

G

<Enter>

G

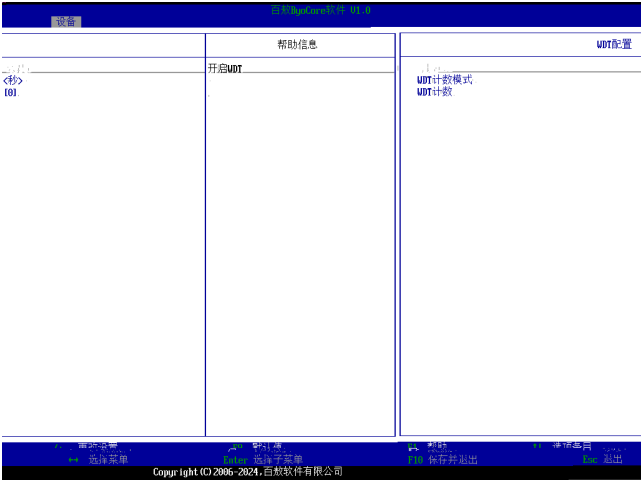


1/2/3/4/5/6

G

G

WDT <Enter> G



WDT

WDT G

WDT h G

WDT

WDT G

WDT h G

WDT

WDT G

WDT 0-255 G

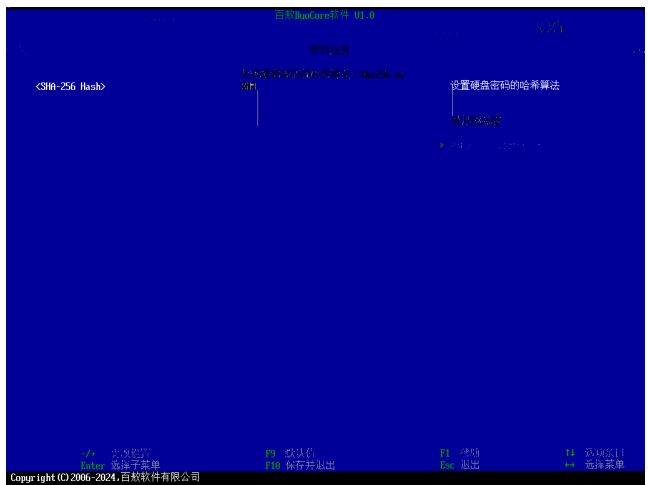


LVDS
LVDS G
1H2H3H4H5H6 G
LVDS
LVDS G
H H G
PCIEX16
PCIEX16 G
x8x8Hx16H G
PBF
PBF G
H H H H H H G
BIOS
BIOS G
h G
PCIE
PCIE G
H0sHL1H0s&L1 G
PCIE
PCIE G
128B h 256B G
PCIE
PCIE G
256B h 512B G

4 h G

4 h G

<Enter> G



G

4 SHA-256 Hash h SM3 Hash g

<Enter> G



G

4 h g

<Enter>

G



G

4 h G

G

G

G

G

<Enter>

G



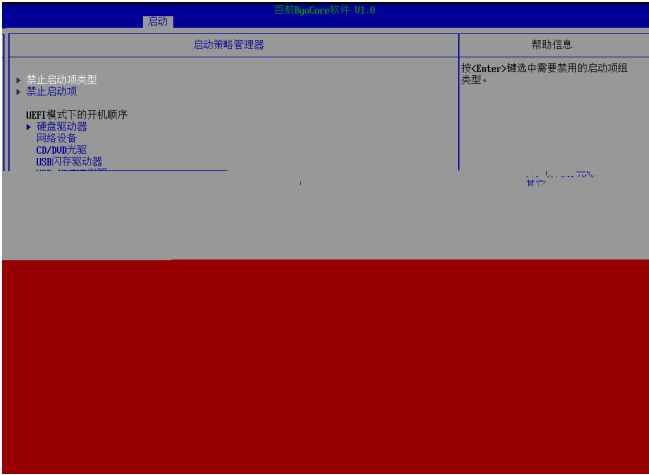
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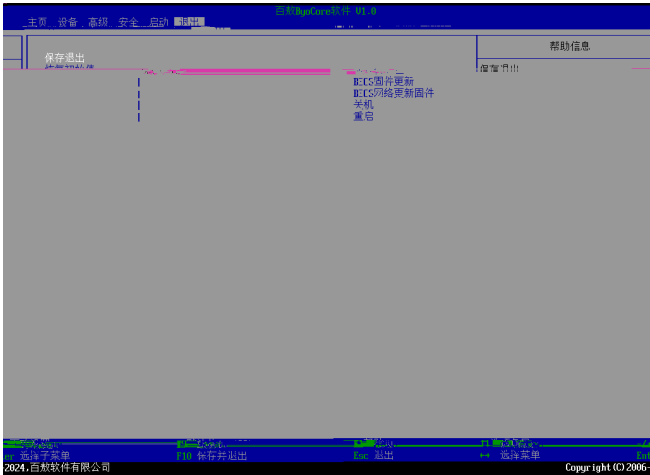
G

<Enter> G



G

G



G

G

BIOS
BIOS
BIOS
BIOS

G

G

G

G

8 WDT

```
#dežne Superlo_Index_Port 0x2E
#dežne Superlo_Data_Port 0x2F
#dežne GPIO_LDN8_DEVICE 0x08
UINT8 Data8H
```

```
//a. Super IO Conžguration Mode
IoWrite8(Superlo_Index_Port, 0x87);
IoWrite8(Superlo_Index_Port, 0x87);
```

```
//b. GPIO, LDN 8
IoWrite8(Superlo_Index_Port, 0x07);
IoWrite8(Superlo_Data_Port, GPIO_LDN8_DEVICE);
```

```
//c. Enabled WDT
IoWrite8(Superlo_Index_Port, 0x30);
IoWrite8(Superlo_Data_Port, IoRead8(Superlo_Data_Port) | 0x01);
```

```
//d. WDT h Register 0xF0 Bit3 1 h 0
IoWrite8(Superlo_Index_Port, 0xF0);
//
IoWrite8(Superlo_Data_Port, IoRead8(Superlo_Data_Port) | 0x08);
//
// IoWrite8(Superlo_Data_Port, IoRead8(Superlo_Data_Port) & 0xF7);
```

```
//e. WDT 5 /
IoWrite8(Superlo_Index_Port, 0xF1);
IoWrite8(Superlo_Data_Port, 0x5);
```

```
//f. Super IO Conžguration Mode
IoWrite8(Superlo_Index_Port, 0xAA); // Super IO Conžguration Mode h SuperIO
, Conžguration Mode
```

9 GPIO

JVC-8100 GPIO I2C h :

(1) 9555 I2C-1

(2) Slave address 1 0x20

(3) GPIO0 I0.0H/I0.1H/I0.2H/I0.3H/I0.4H/I0.5H/I0.6H/I0.7 h /

(4) GPIO1 I1.0H/I1.1H/I1.2H/I1.3H/I1.4H/I1.5H/I1.6H/I1.7 h /

(5) I2C Command GPIO h 3 h 4

a. 6H 7 4 GPIO0H/GPIO1d h 0-7bit Ix.0-Ix.7 h
bit 0 1 / h 1 H 0

b. 0H 1 4 GPIO0H/GPIO1 h 0-7bit Ix.0-Ix.7 h
0H 1 GPIO0H/GPIO1 G

c. 2H 3 4 GPIO0H/GPIO1 h 0-7bit Ix.0-Ix.7 h
2H 3 GPIO0H/GPIO1 G

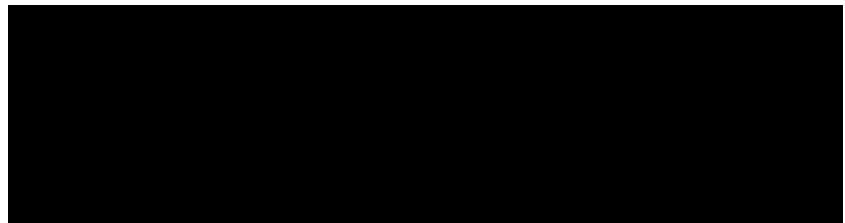
(6) i2c h sudo apt install libi2c-dev

(7) 4

```
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
#include <sys/ioctl.h>
#include <unistd.h>
```

(8) 4

a.



b. H_0

```

int file = -1;
char filename[20];
sprintf(filename, "%04x-%04x-%04x-%04x-%04x",
        I2C_SLAVE_ADDR, I2C_SLAVE_ADDR, I2C_SLAVE_ADDR, I2C_SLAVE_ADDR, I2C_SLAVE_ADDR);
file = open(filename, O_RDWR);
if (file < 0) {
    perror("Failed to open the i2c bus");
    return -1;
}

if(ioctl(file, I2C_SLAVE, I2C_SLAVE_ADDR) < 0){
    perror("Failed to acquire bus access talk to slave");
    close(file);
    exit(1);
}
}

```

(9)

4

a.

```
... #define I2C_DEV "/dev/i2c-1" //设备名

#define I2C_SLAVE_ADDR 0x20 //定义从机地址

//获取GPIO0的输出寄存器地址
#define I2C_REG_OUTPUT_PORT0 0x00 //获取 GPIO0 输出状态的输入寄存器

//获取GPIO1输入状态的输入寄存器 #define I2C_REG_INPUT_PORT1 0x01
```

b.

H

```
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);
}

if(ioctl(file, I2C_SLAVE, I2C_SLAVE_ADDR) < 0){
    perror("Failed to acquire bus access and talk to slave");
    close(file);
    exit(1);
}
```

c.

6

GPIO0

h

GPIO0

4

```
if(i2c_smbus_write_byte_data(file, I2C_REG_CONFIG_PORT0, 0x00) < 0){
    perror("Failed to set configuration for port 0");
    exit(1);
}

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

d.

GPIO

h

GPIO0 I0.0

4

```
if(i2c_smbus_read_byte_data(file, I2C_REG_INPUT_PORT0) < 0){
    perror("Failed to read data from port 0");
    exit(1);
}
```

10

10.1

		/
		1Hu 2Hu 12
	d d	
		h G
		1Hu 2Hu 3Hu h
		ÿ ÿ Hu
		Winpe ÿ h h ÿ
h IHÖ		Hu PCI ISA Hu h
	BIOS	Setup h BIOS Setup h BIOS
BIOS h		
Boot device not found	BIOS h h	BIOS d d (Boot) h
USB	USB 2.0 h USB 2.0	USB 2.0
	USB	1Hu Support ÿ USB Legacy 2Hu USB ÿ USB h