APPENDIX –Setting of CPU Card

Specifications

CPU

- Support Intel®Micro FC-PGA2 Penteum®4 processor
- Support front side bus(FSB)400 / 533MHz (For FSC-1715VN CPU Card)
- Support front side bus(FSB)400 MHz (For FSC-1711VN CPU Card)

Chipset

- Northbridge Chip(MCH) - Intel RG82845E
- Southbridge Chip(ICH) - FW82801DB(ICH4) (For FSC-1715VN CPU Card)
- Northbridge Chip(MCH) - Intel RG82845
- Southbridge Chip(ICH) - FW82801BA(ICH2) (For FSC-1711VN CPU Card)

DRAM Memory

- Support 2x184-pin DDR DIMMs
- Support DDR200(PC1600) / DDR266(PC2100) SDRAM DIMMs
- Support 64MB/128MB/256MB/512MB/1GB unbuffered & ECC DIMM modules
- Support memory modules with a total capacity of 2GB

IDE Facilities

- Support U1tra ATA100/66/33
- Support IDE interface with CD-ROM
- Support high capacity hard disk drives
- Support installation of up to 4 drives, with separate IDE connections for Primary and Secondary connectors

Universal Serial Bus

- Support up to four USB ports for USB interface devices
- Support USB 2.0 Enhanced Host Controller Interface(EHCI) and dual USB 1.1 Open Host Controller Interface(OHCI) (For FSC-1715VN CPU Card)
- Support USB 1.1 Open Host Controller Interface(OHCI) (For FSC-1711VN CPU Card)

AGP Graphic Function

- The ATI Radeon 9200 GPU graphic acceleration controller is built in this CPU car, advanced 2D and 3D graphic performance, with the display resolution up to 1600x1024 (For FSC-1715VN CPU Card)
- The ATI Rage128 PRO AGP 4X graphic acceleration controller is built in this CPU card,128 bits engine, advanced 2D and 3D graphic performance, with the display resolution up to 1600x1024 (For FSC-1711VN CPU Card)

LAN

- Provides Auto-negotiation(NWAY)function of full duplex operation for both 10Mbps and100Mbps
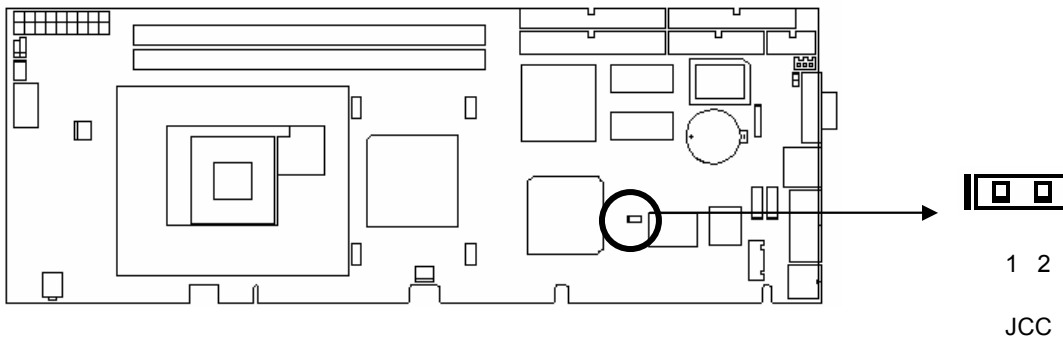
1.1 Clear CMOS Jumper

Note: how to recognize the first pin of the connector.

➢ Look the number marker besides the header connector,"1"or bold line will be used to indicate.

➢ See the terminal pad at the back, square terminal pad is the first pin

➢ Red line of the wire and other marker indicates it needs to connect to the first pin of the connector

(1) JCC: Clear CMOS (For FSC-1715VN CPU Card)

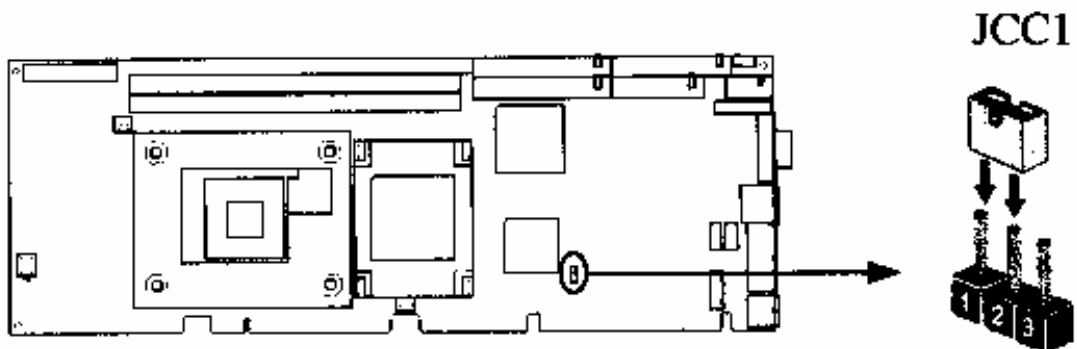This jumper allows you to reset the CMOS configurations, and the reconfigure.

Setting	JCC
Open	[1-2] (Normal，default setting)
Short	[1-2] (Clear CMOS data，<short means to cover two pins on a jumper using a jumper cap>)

1 2

JCC

(2) JCC1: Clear CMOS (For FSC-1711VN CPU Card)

This jumper allows you to reset the CMOS configurations, and the reconfigure.

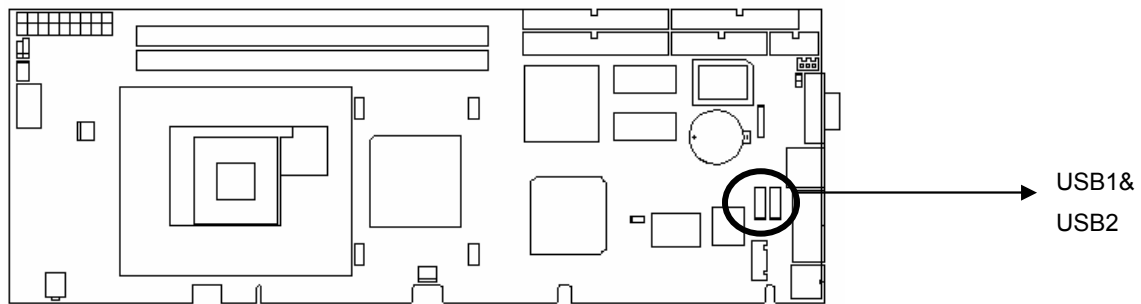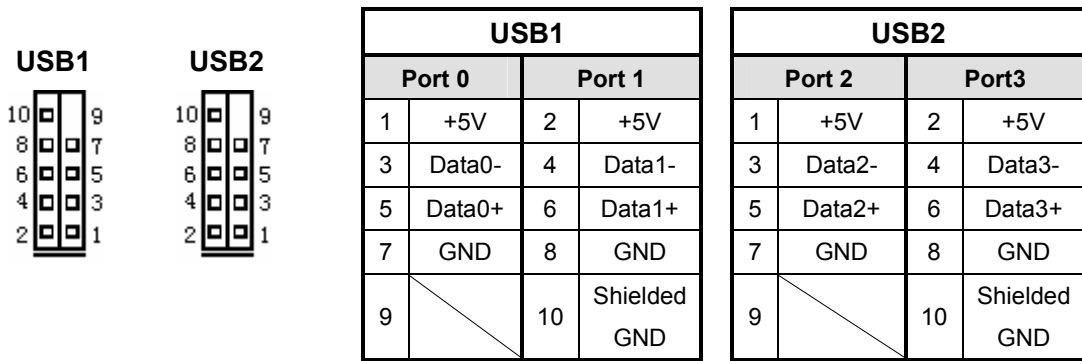| Setting	JCC1
Short	[1-2] (Normal，default setting)
Short	[2-3] (Clear CMOS data，<short means to cover two pins on a jumper using a jumper cap>)

JCC1

The "Clear CMOS" jumper is used when you cannot boot your system due to some CMOS configuration problem such as a forgotten password.

Step: (1)Close computer；(2)Short JCC jumper；(3)open computer；(4)press DEL enter BIOS setup, load system default setting；(5)save & exit setup.
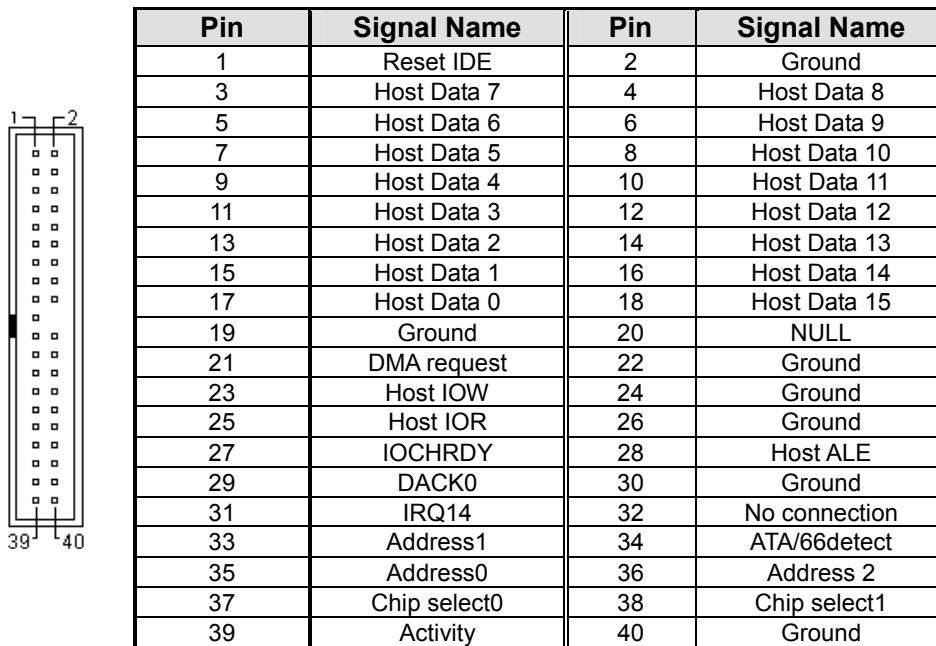
1.2 USB

This CPU Card provides two USB device connectors(USB1、USB2)，up to four USB Ver 2.0 port,USB1 USING PORT 0 and port 1;USB2 using port 2 and port 3.USB1 and USB2 each can be disabled or enabled by BIOS individually. Conversion cable need connect USB interface signal to standard USB connector

USB1				USB2			
Port 0		Port 1		Port 2		Port3	
1	+5V	2	+5V	1	+5V	2	+5V
3	Data0-	4	Data1-	3	Data2-	4	Data3-
5	Data0+	6	Data1+	5	Data2+	6	Data3+
7	GND	8	GND	7	GND	8	GND
9		10	Shielded GND	9		10	Shielded GND

USB1&
USB2

1.3 IDE Connector

This CPU Card Provides two 40-pin blue IDE connector(IDE1,2)

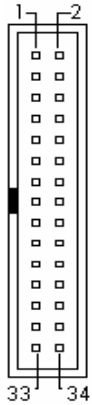| Pin	Signal Name	Pin	Signal Name
1	Reset IDE	2	Ground
3	Host Data 7	4	Host Data 8
5	Host Data 6	6	Host Data 9
7	Host Data 5	8	Host Data 10
9	Host Data 4	10	Host Data 11
11	Host Data 3	12	Host Data 12
13	Host Data 2	14	Host Data 13
15	Host Data 1	16	Host Data 14
17	Host Data 0	18	Host Data 15
19	Ground	20	NULL
21	DMA request	22	Ground
23	Host IOW	24	Ground
25	Host IOR	26	Ground
27	IOCHRDY	28	Host ALE
29	DACK0	30	Ground
31	IRQ14	32	No connection
33	Address1	34	ATA/66detect
35	Address0	36	Address 2
37	Chip select0	38	Chip select1
39	Activity	40	Ground

Note: Interrupt request: IPQ14forIDE1, IRQ15 for IDE2;

DMA request/response: DRQ0/DACK0 for IDE1, DRQ1/DACK1 for IDE2;

1.4 Floppy Disk Connector: FDC

This CPU card provides one 34-pin black FDD interface (FLOPPY)，which connects to two 3.5 inch (max)or 5.25 inch FDD(max). Pay attention to the direction of the cable and connector
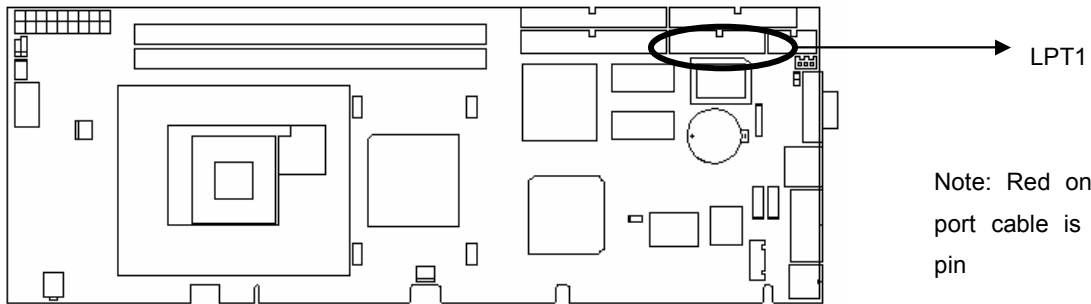
Pin	Signal Name	Pin	Signal Name
1	Ground	2	RM/LC0
3	Ground	4	null
5	Ground	6	RM/LC1
7	Ground	8	Index
9	Ground	10	Motor enable0
11	Ground	12	Drive select1
13	Ground	14	Device select0
15	Ground	16	Motor enable1
17	Ground	18	Direction
19	Ground	20	Step
21	Ground	22	Write data
23	Ground	24	Write gate
25	Ground	26	Track 00
27	Ground	28	Write protect
29	Ground	30	Read data
31	Ground	32	Side 1 select
33	Ground	34	Diskette change

FDC

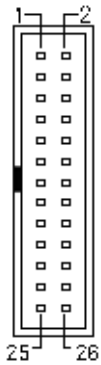IDE1&IDE2

Note: Red on parallel port cable is the first pin
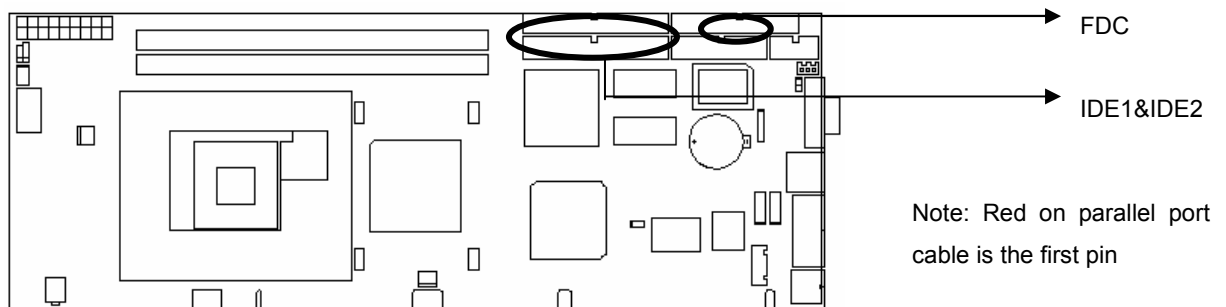
1.5 Parallel Port Connector

This CPU Card provides one standard 25-pin parallel port connector (PRINT1).The parallel port connector can connect to parallel devices according to your application

LPT1

Note: Red on parallel port cable is the first pin

Signal name	Pin	Pin	Signal name
STB	1	2	Autofeed
PD0,parallel data0	3	4	Error
PD1, parallel data 1	5	6	initialize
PD2, parallel data 2	7	8	select
PD3, parallel data 3	9	10	Ground
PD4, parallel data 4	11	12	Ground
PD5, parallel data 5	13	14	Ground
PD6, parallel data 6	15	16	Ground
PD7, parallel data 7	17	18	Ground
ACK	19	20	Ground
Busy	21	22	Ground
Paper empty	23	24	Ground
Select	25	26	No connect

1.6 Serial Port Connector

This CPU card has two serial communication ports:COM1 and COM2.COM1 is a standard D-Sub9 connector which can connect with external device directly;COM2 is a standard 2*5 connector which needs conversion cable(10 to 9 pins)fixed onto the chassis to connect with external devices. These connectors can connect the mouse with RS-232 standard interface, Modem, digital camera, etc. COM2 interface can be used to connect infrared devices through BIOS setup program.
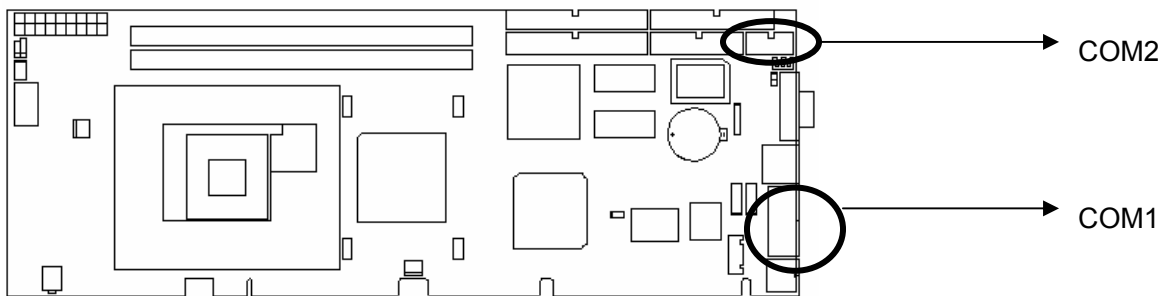
COM1

Pin	Signal name
1	DCD, data carrier detect
2	RXD, receive data
3	TXD, transmit data
4	DTR, data terminal ready
5	GND, ground
6	DSR, data set ready
7	RTS, request to send
8	CTS, clear to send
9	RI, ring indicator
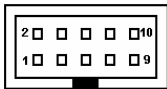
COM2

Pin	Signal name
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI
10	null

COM2

COM1

Note: Red on parallel port cable is the first pin

1.7 Display Output Connector (Blue,15 pins VGA)

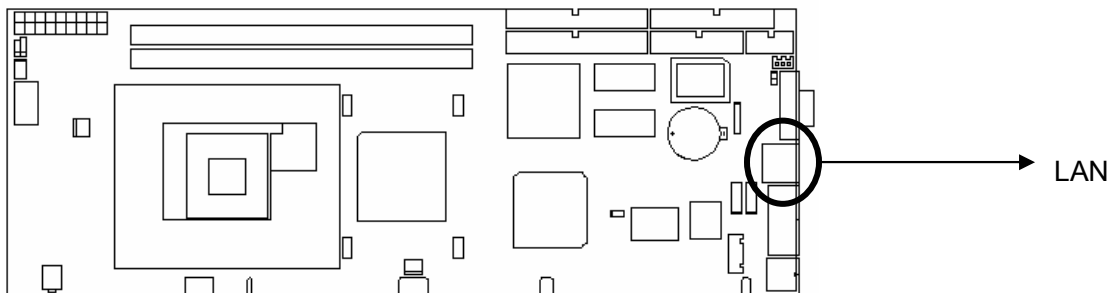THIS IS 15-pin Dsub VGA display connector (VGA).It can cannect with all displays with standard VGA interface
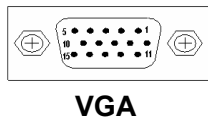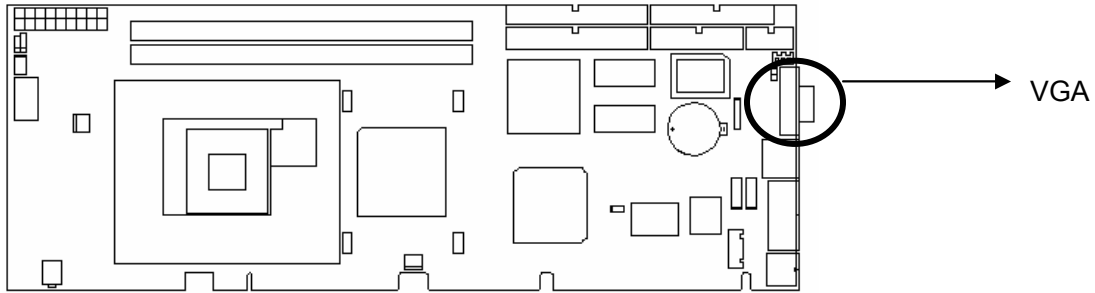
VGA

Signal name	Pin	Pin	Signal name
Red	1	2	Green
Blue	3	4	Pull up to +5V
Ground	5	6	Ground
Ground	7	8	Ground
+5V	9	10	Ground
Pull up to +5V	11	12	DDCDATA
HSYNC	13	14	VSYNC
DDCCLK	15		

1.8 LAN Connector

This CPU card provides one RJ-45 10/100Mb Ethernet interface(LAN).There are two status indicators respectively at both sides. Up/right indicate network activity status, down/left indicator indicate the Ethernet link status

LAN

TD+, TD−:	positive/negative transit data signal
RD+, RD−:	positive/negative receive data signal
ACTLED:	network status indicator
LILED:	network link indicator

ACTLED
TD+(pin#1)
TD-(pin#2)
RD+(pin#3)
RD-(pin#6)
LILED

| LILED (down/left)	Status indication	ACTLED （up/right）	Status indication
On	Valid link	On	Data transfer in progress
灭	Invalid link	Off	Data transfer off

1.9 Keyboard/Mouse Connector

（1）KB/MOUSE Connector

This is a 6-pin miniDIN connector used by both keyboard and mouse.It can insert to PS/2 keyboard directly,but need 1 to 2 PS/2 keyboard/mouse cable provided with this CPU card to connect to both keyboard and mouse.Moreover,the board is configured with 5-pin single ling connector J1 to connect with AT standard Keyboard. The system will automatically detect and assign IRQ12 to PS/2 if you are using PS/2 mouse;If system could not detect the use of PS/2 mouse,IRQ12 will be assigned to expansion card.

J1
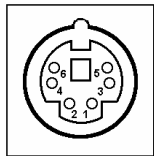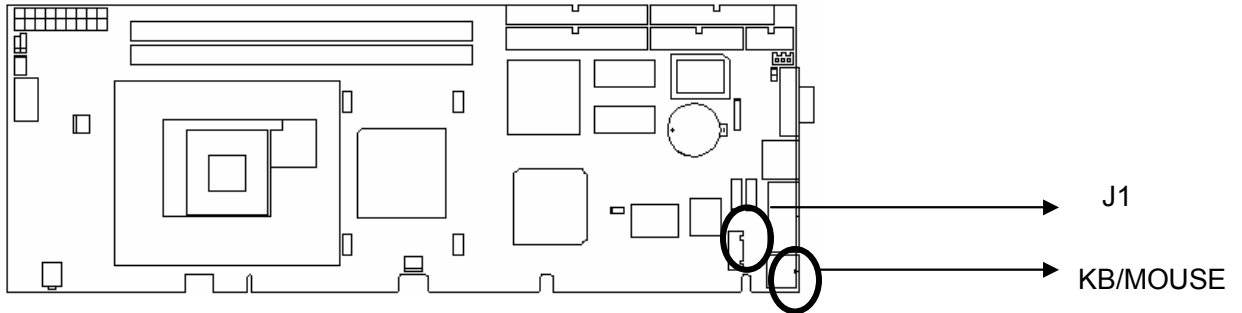
KB/MOUSE

KB/MOUSE

pin	Signal name
1	Keyboard data
2	Mouse data
3	GND
4	+5V
5	Keyboard clock
6	Mouse colck

（2）J1：External keyboard connector
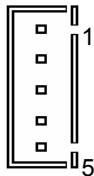
Pin	Signal name
1	Keyboard clock
2	Keyboard data
3	null
4	GND
5	+5V

1.10 IrDA(Infrared Header)

This CPU CARD SUPPORTS IrDA 1.0 version SIR protocol or Sharp ASD-IR protocol infrared red data transmission function. Please note that infrared interface can connect to TxD / RxD of COM2 port or specific infrared port IR1.Moreover, BIOS Setup function need to be used to configure the COM2 operation mode, simplex/duplex and pin Signal name. Please refer to BIOS Setup for COM2 serial communication port.


IR1
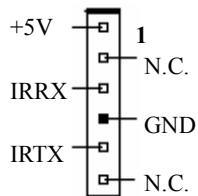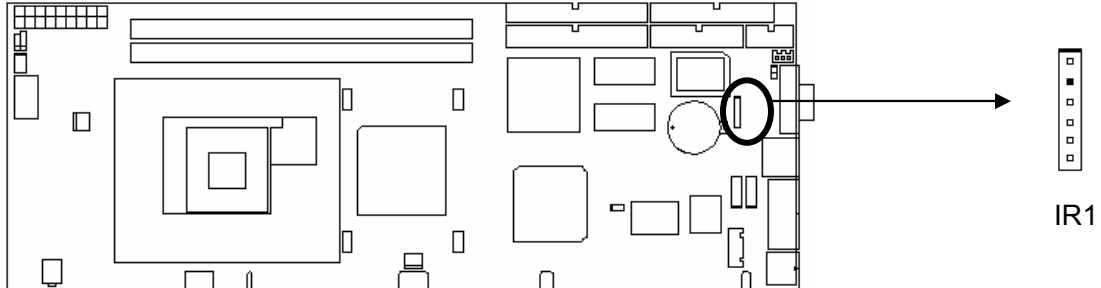
Pin	Signal name
1	+5V
2	N.C.
3	IRRX
4	GND
5	IRTX
6	N.C

1.11 Fan Connector

This CPU card provides 2 standards fan connectors (CPUFAN, CHSFAN)

Pay attention to the following aspect when using fan connector:

➢ The fan current doesn't exceed 350mA(4.2w,12v)

➢ Confirm that the wires of the fan match the wires of this connector. Power wire (red normally) lies in the middle position. Ground wire (black normally)and fan rotate speed output pulse signal(other color).Some of the fans do not have speed detection, but the pin output over 12V,which may be damage CPU card. This is non-standard wiring. Recommend to use fans with speed detection

➢ Adjust the fan airflow to discharge the heat energy.

CHSFAN

CPUFAN
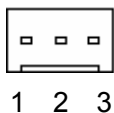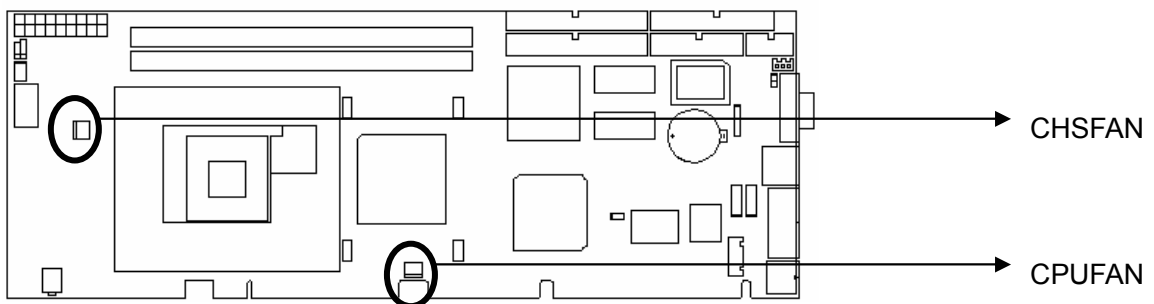
Pin	Signal name
1	Ground
2	+12V
3	Rotate speed output pulse

1.12 Power supply connector

➢ Direct supply from passive backplane
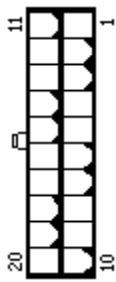
Signal name	Pin		Signal name
+3.3V	11	1	+3.3V
-12V	12	2	+3.3V
GND	13	3	GND
PS-ON(power on/off control)	14	4	+5V
GND	15	5	GND
GND	16	6	+5V
GND	17	7	GND
-5V	18	8	Power Good
+5V	19	9	+5V SB(backup+5V)
+5V	20	10	+12V

ATXPOWER

1.13a PC Front panel indicator (For FSC-1715VN CPU Card)

（1）FP1：Power button、IDE LED、RESET
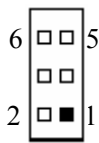
signal name	Pin	Pin	Signal name
IDE LED +	6	5	IDE LED -
Reset	4	3	GND
PWR Button+	2	1	PWR Button-

FP2、FP3

FP1
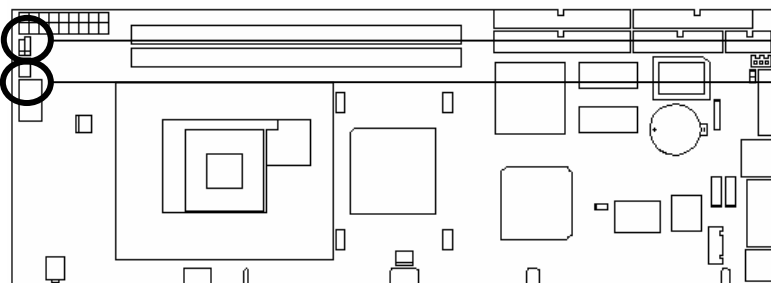
（2）FP2：Power LED

Pin	Signal name
3	GND
2	N.C.
1	Power LED +

（3）FP3：Speaker

Pin	Signal name
4	+5V
3	GND
2	NC
1	Speaker out

1.13b PC Front panel indicator (For FSC-1711VN CPU Card)

PN1
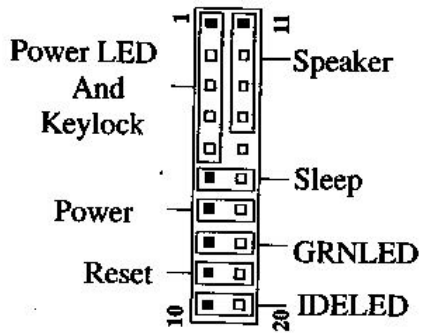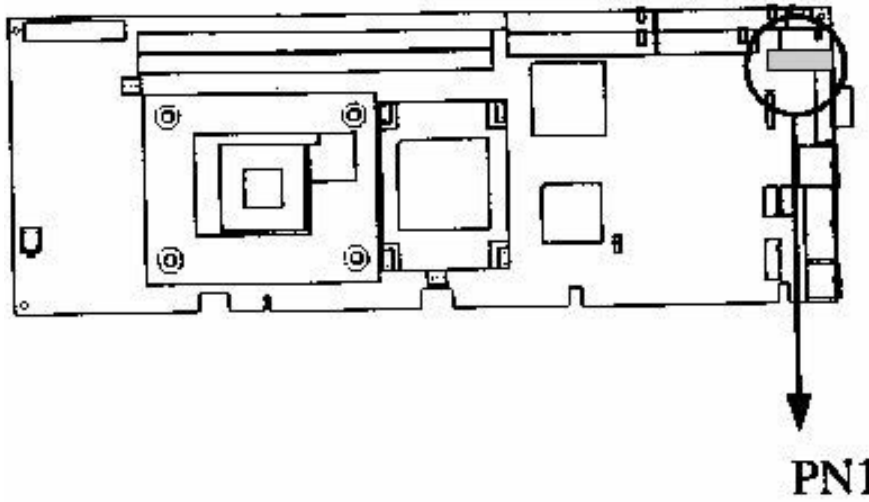
Signal name	Pin	Pin	Signal name
Speader out	11	1	Power LED+
No Connect	12	2	No connect
GND	13	3	GND
+5V	14	4	Keylock
No connect	15	5	GND
GND	16	6	Sleep
GND	17	7	Power
GND	18	8	Green LED+
Reset	19	9	GND
IDE LED-	20	10	IDE LED+