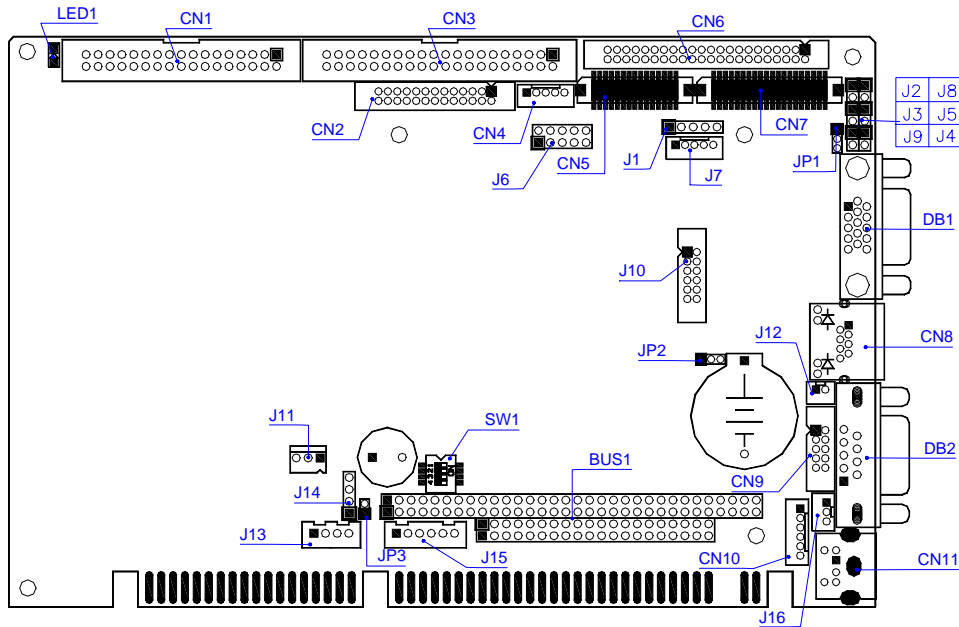


## 1. Brief

The FB2501 is a Low power PII Grade, all in one, half-size CPU card. This user's quick setting provides the jumper and switch settings, connector location, and their pin assignment.

## 2. Board Placement



## 3. Packing List

- 1 FB2501 all-in-one CPU board.
- 1 40-pin hard disk drive interface cable.
- 1 34-pin floppy drive interface cable.
- 1 serial port and parallel port interface cable with bracket.
- 1 mouse port adapter cable with bracket. (Optional item)
- 1 2-port USB adapter cable with bracket. (Optional item)
- 1 compact disc includes software utility.
- 1 hard copies of this quick setup manual.

## 4. Features

- \* On-board low power 400MHz VIA Eden CPU w/heat sink. (Fanless operation)
- \* Compact size slot card with ISA and PC/104 bus.
- \* VIA VT8601T+VT82C686B chipset and 64KB or above L2 cache inside the CPUs.
- \* On-board 32MB SDRAM and 1 SoDIMM socket for up to 544MB maximum.
- \* 100M/10M Ethernet with RJ-45 connector.
- \* Onboard VGA port (VT8601T embedded) supports CRT with up to 8MB shared memory.
- \* 1 floppy, 2 PCI IDE, 1 parallel, 1 RS-232 and 1 RS-232/422/485/IrDA ports.
- \* CompactFlash socket for 3.3V CompactFlash and MicroDrives.
- \* PS/2 compatible keyboard and mouse interface.
- \* E2KEY function for safe CMOS data keeping.
- \* On-board buzzer and LED indicator.
- \* 2 USB ports and hardware monitoring functions.
- \* Provides 1 CPU cooling fan connector for monitoring.
- \* Software programmable watchdog timer.
- \* Provides 1 AC97 connector for Audio functions.
- \* Flash BIOS with easy upgrade utility.
- \* Compact size, 185 mm x 122 mm.

## 5. Connectors and Their Relative Jumpers

### A. CPU Base Clock and PCI Clock Select ( Solder Pad P1 and P2)

P1	P2	CPU Base Clock	PCI Clock	Remark
Open	Open	Depend on CPU	33.3 MHz	Factory Preset
Open	Close	100.0 MHz	33.3 MHz	
Close	Open	105.0 MHz	33.3 MHz	
Close	Close	66.7 MHz	33.3 MHz	

Note: The CPU Base Clock is 100MHz for 400MHz CPUs.

### B. Reset Header (J3)

J3 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2501 and restart system booting.

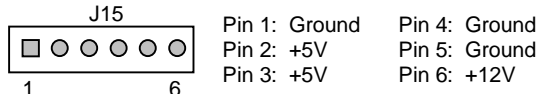
### C. Keyboard and Mouse Connector (CN10 and CN11)

CN11 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN11 directly without extra adapter cable. CN10 provides PS/2 mouse interface, use the included mouse adapter cable (optional) to connect between CN11 and standard PS/2 mouse.

Pin	Signal
1	Pin 1: Mouse Data
2	Pin 2: Keyboard Data
3	Pin 3: Ground
4	Pin 4: VCC
5	Pin 5: Mouse Clock
6	Pin 6: Keyboard Clock

Note that CN10 and CN11 all support PS/2 keyboard and mouse signals and have to order 3-head cable from your supplier.

**D. Auxiliary Power Connector (J15: 6-pin 2.5mm JST)**



Note: This power connector is ideal for standalone applications.

**E. Floppy Connector (CN1: 34-pin 2.54mm IDC)**

Note that the included floppy cable supports only 720KB, 1.44MB, and 2.88MB disk drives.

**F. IDE Hard Disk Connectors (CN3 - 40-pin 2.54mm IDC, & CN6 -44-pin 2.0mm IDC)**

Use the included 40-pin hard disk cable, you can attach up to two 3.5" hard disk drives. The 44-pin HDD cable is optional.

**G. Parallel Port Connector (CN2: 26-pin 2.0mm IDC)**

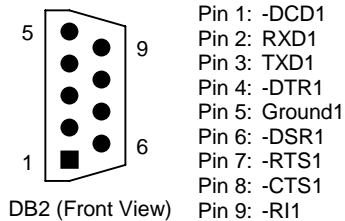
The included printer interface cable is used to transfer 26-pin connector into standard parallel port connector (D-sub 25-pin).

**H. Serial Port Connectors & Selector (DB2, CN9, J1, J16, SW1-2, SW1-3, and SW1-4)**

There are 4 connectors and 1 switch that served for onboard 2 serial ports. The following table and figure list the combination and pin definition of them:

Functional connector, header, and jumper of serial ports	Serial Port 1	Serial Port 2
RS-232 Signals	DB2	CN9, SW1-2, and SW1-3
RS-422 Signals	-	CN9, SW1-2, and SW1-3
RS-485 Signals	-	CN9, SW1-2, and SW1-3
Terminator for RS-422 & RS-485	-	SW1-4
Infrared Signals	-	J1
Internal TXD/RXD	-	J16

(1) Serial Port 1 (DB2, 9-pin D-sub connector)



(2) Serial Port 2 (CN9, J1, J16, SW1-2, SW1-3, and SW1-4)

CN9	D-sub 9	RS-232	RS-422	RS-485
1	1	-DCD2		-
2	6	-DSR2		-
3	2	RXD2	RX-	485-
4	7	-RTS2	TX-	-
5	3	TXD2	RX+	485+
6	8	-CTS2	TX+	-
7	4	-DTR2		-
8	9	-RI2		-
9	5	Ground2		
10	Metal	Case Ground		

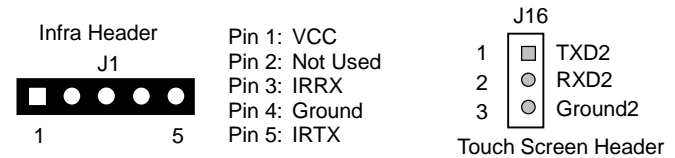
SW1-2	SW1-3	Mode
Off	Off	RS-232
On	Off	RS-422
On	On	RS-485
Off	On	Reserved

Note: RS-232 is factory preset

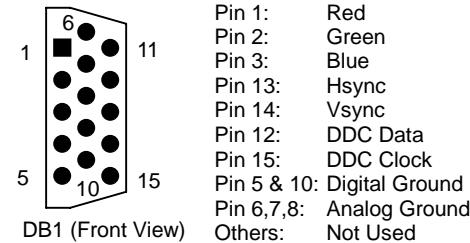
SW1-4	Terminator (422/485)
Off	Off
On	On

Note: The factory preset is Off

Note: The included serial port cable is use to transfer CN9 into standard 9-pin D-sub male connector.

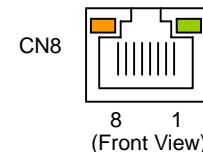


**I. CRT Connector (DB1)**

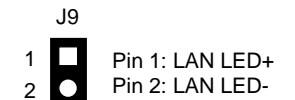


**J. LAN Connector and LED Indicators (CN8: RJ45, and J9)**

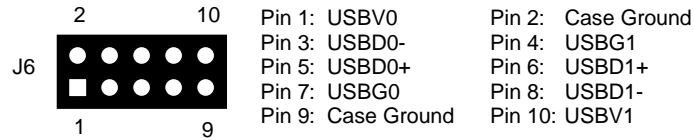
CN8 is a RJ45 connector with 2 LEDs. The up side LED (orange) indicates data is accessing and the down side LED (green) indicates on-line status. (When lighted indicates on-line and off indicates off-line) The following lists the pin assignment of CN8 and J9:



CN8	Signal	CN8	Signal
1	TPTX+	5	FBG1
2	TPTX-	6	TPRX-
3	TPRX+	7	FBG2
4	FBG1	8	FBG2

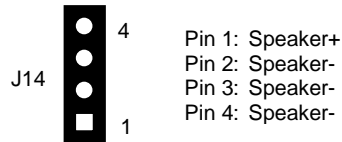


### K. USB Connector (J6)



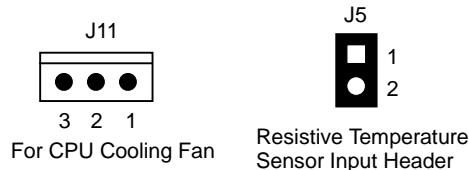
### L. On-Board Buzzer and External Speaker Header (BZ1 and J14)

BZ1 is the on-board buzzer and you can use one 2-pin or 4-pin cable connects between an extra 8 ohms speaker with J14 header.



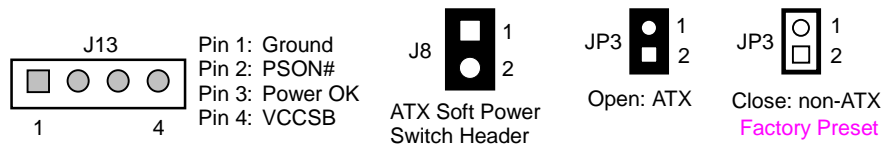
### M. Cooling Fan Connectors and Temperature Sensor Header (J11 and J5)

J11 is a 3-pin Molex connector and which is use to drive CPU cooling fan. FB2501 provides one 2-pin header (J5) for connecting a temperature sensor anywhere the system case.



### N. Soft Start Connector (J13, J8 and JP3) – for ATX Power Supply Only

When ATX power supply is used, you can connect J13 to ATX control signals from the back plane, and connect J8 to a push bottom switch as soft power switch. If non-ATX power supply is used, please short JP3 with jumper and you don't need to connect J13 and J8.

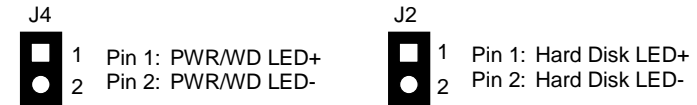


### O. SoDIMM Socket (DIMM1)

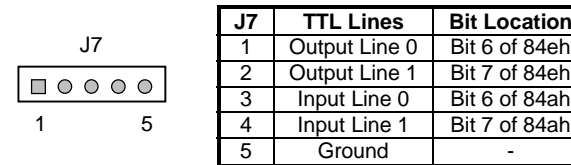
DIMM1 supports 144-pin, 3.3V, and PC-133 SDRAM with size of 32MB, 64MB, 128MB, 256MB, and 512MB.

### P. Power/Watchdog and HDD LED Indicators (J4 and J2)

LED1 is the on-board Power/Watchdog (PWR/WVD) LED and J4 (2-pin header) is used to connect an external PWR/WVD LED. J2 is the hard disk LED header.



### Q. TTL I/O Connector (J7: 5-pin 2.0mm JST)



### R. CompactFlash Socket and Master/Slave Select (J17 and JP1)

The CompactFlash socket J17 (on the solder side) supports 3.3V CompactFlash and MicroDrives. JP1 is used to select master/slave device of this socket. Be sure to avoid the same master/slave setting with which connects to IDE#2 (CN6) connector, if you use J17 and CN6 simultaneously.

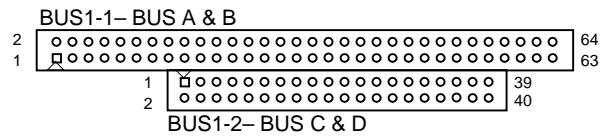


### S. AMR Connector (J10)

J10	Signal	J10	Signal
1	BITCLK	2	+12V
3	+5V	4	SYNC
5	Ground	6	Ground
7	+3.3V	8	ACRST#
9	SDOUT	10	SPKR
11	SDIN	12	SDIN2

J10 provides AC97 signals for Audio and Modem functions. FB4641 (Audio and USB Adapter Board, Optional) is recommended for your best Audio solutions.

**T. PC/104 Connectors (BUS1: 64-pin IDC & 40-pin IDC)**



**U. External Battery Connector and Battery Select Jumper (J12 and JP2)**

J12 is used to connect an external battery pack if on-board Lithium battery is empty, and please setting JP2 properly of on-board battery or external battery. Note that JP2 also allow you to clear CMOS data if necessary.

