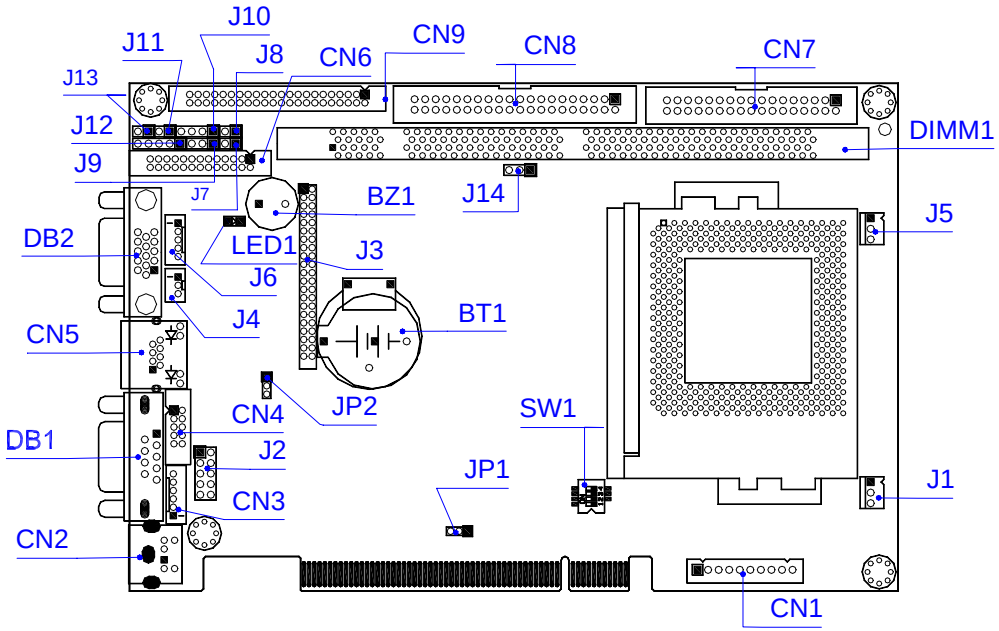
FB2642 User's Quick Setting

1. Brief

The FB2642 is a PII/PIII Grade, all in one, half-size, socket-370 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 FB2642 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.
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

* Supports 600~1.3GHz and up 0.13um/0.18um CPUs. (Socket 370)
* Compact size slot card with PICMG PCI expansion bus.
* Intel 815E chipset and 128KB or above L2 cache inside the CPUs.
* Supports one 168-pin DIMM socket (PC-133 SDRAM), 512MB maximum.
* 100M/10M Ethernet with RJ-45 connector.
* Onboard VGA port (Intel 815E embedded) supports 4MB video cache RAM.
* 1 floppy, 2 PCI IDE, 1 parallel, 1 RS-232 and 1 RS-232/422/485/IrDA ports.
* PS/2 compatible keyboard and mouse interface.
* E2KEY function for safe CMOS data keeping. (Optional)
* On-board buzzer and LED indicator.
* 2 USB ports and hardware monitoring functions.
* Provides 2 (CPU & case) cooling fan connector for monitoring.
* Software programmable watchdog timer.
* Provides 1 feature connector for Panel Link, Audio, and Intel LAN solutions. (Optional)
* 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 (SW1-3 & SW1-4)*

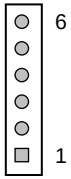
SW1-3	SW1-4	CPU Base Clock	PCI Clock	Remark
Off	Off	133.3 MHz	33.3 MHz	
Off	On	Reserved	Reserved	
On	Off	100.0 MHz	33.3 MHz	Factory Preset
On	On	66.7 MHz	33.3 MHz	

B. *Reset Header (J13)*

J13 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2642 and restart system booting.

C. *Keyboard and Mouse Connector (CN2 & CN3)*

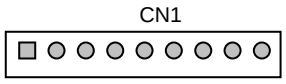
CN2 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN2 directly without extra adapter cable. CN3 provides PS/2 mouse interface, use the included mouse adapter cable to connect between CN3 and standard PS/2 mouse.



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

Note that CN2 and CN3 all support PS/2 keyboard and mouse signals and have to order 3-head cable from your supplier.

D. Auxiliary Power Connector (CN1: 9-pin 2.5mm JST)



Note: This power connector is ideal for standalone applications.

Pin 1: +5V
Pin 2: +5V
Pin 3: Ground
Pin 4: Ground
Pin 5: +12V
Pin 6: Ground
Pin 7: Ground
Pin 8: +5V
Pin 9: +5V

E. Floppy Connector (CN7: 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 (CN8 - 40-pin 2.54mm IDC, & CN9 -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 (CN6: 26-pin 2.0mm IDC)

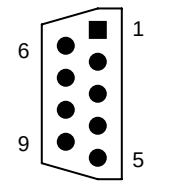
The included printer interface cable is used to transfer 26-pin connector into standard parallel port connector (D-sub 25-pin).

H. Serial Port Connectors & Selector (DB1, CN4, JP2, J4, J12, SW1-1, and SW1-2)

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	DB1	CN4 and SW1
RS-422 Signals	-	CN4 and SW1
RS-485 Signals	-	CN4 and SW1
Terminator (RS-422/485)	-	JP2
Infrared Signals	-	J12
Internal TXD/RXD	-	J4

(1) Serial Port 1 (DB1, 9-pin D-sub connector)



DB1 (Front View)

Pin 1: -DCD1
Pin 2: RXD1
Pin 3: TXD1
Pin 4: -DTR1
Pin 5: Ground1
Pin 6: -DSR1
Pin 7: -RTS1
Pin 8: -CTS1
Pin 9: -RI1

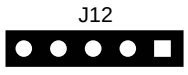
(2) Serial Port 2 (CN4, JP2, J12, J4, SW1-1, & SW1-2)

CN4	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		

SW1-1	SW1-2	Mode
Off	Off	RS-232
Off	On	RS-485
On	Off	RS-422
On	On	Reserved

Note 1: The included serial port cable is use to transfer CN4 into standard 9-pin D-sub male connector.

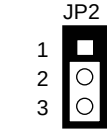
Note 2: RS-232 is factory preset



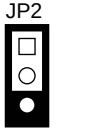
Infra Header

Pin 1: VCC
Pin 2: Not Used
Pin 3: IRRX
Pin 4: Ground
Pin 5: IRTX

Touch Screen Header

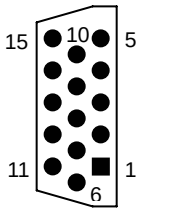


Terminator Off



Terminator On

I. CRT Connector (DB2)

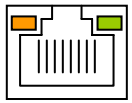


DB2 (Front View)

Pin 1: Red
Pin 2: Green
Pin 3: Blue
Pin 13: Hsync
Pin 14: Vsync
Pin 12: DDC Data
Pin 15: DDC Clock
Pin 5 & 10: Digital Ground
Pin 6,7,8: Analog Ground
Others: Not Used

J. LAN Connector and LED Indicators (CN5: RJ45, and J8)

CN5 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 CN5 and J8:



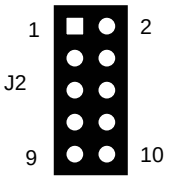
(Front View)

CN5	Signal	CN5	Signal
1	TPTX+	5	FBG1
2	TPTX-	6	TPRX-
3	TPRX+	7	FBG2
4	FBG1	8	FBG2

Pin 1: LAN LED+
Pin 2: LAN LED-

K. Main Extension BUS (BUS1: PICMG PCI)

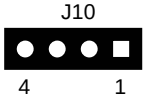
L. USB Connector (J2)



Pin 1:	USBV0	Pin 2:	Case Ground
Pin 3:	USBD0-	Pin 4:	USBG1
Pin 5:	USBD0+	Pin 6:	USBD1+
Pin 7:	USBG0	Pin 8:	USBD1-
Pin 9:	Case Ground	Pin 10:	USBV1

M. On-Board Buzzer and External Speaker Header (BZ1 & J10)

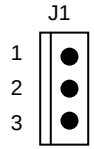
BZ1 is the on-board buzzer and you can use one 2-pin or 4-pin cable connects between an extra 8 ohms speaker with J10 header.



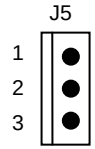
Pin 1: Speaker+
Pin 2: Speaker-
Pin 3: Speaker-
Pin 4: Speaker-

N. Cooling Fan Connectors and Temperature Sensor Header(J1, J5 & J7)

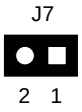
J1 & J5 are all 3-pin Molex connector which are use to drive CPU cooling fan and case cooling fan respectively. FB2642 provides one 2-pin header (J7) for connecting a temperature sensor anywhere the system case.



For CPU Cooling Fan



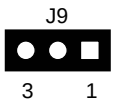
For Case Cooling Fan



Resistive Temperature Sensor Input Header

O. Power/HDD LED Indicators (J9 & J11)

J9 (3-pin header) is used to connect an external power LED. J11 is the hard disk LED header.



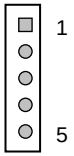
Pin 1: Power LED+
Pin 2: Power LED-
Pin 3: Power LED-

Pin 1: Hard Disk LED+
Pin 2: Hard Disk LED-

P. SDRAM Socket (DIMM1)

DIMM1 supports 168-pin, 3.3V, and PC-133 SDRAM with size of 32MB, 64MB, 128MB, 256MB, and 512MB.

Q. TTL I/O Connector (J6: 5-pin 2.0mm JST)



J6	TTL Lines	Bit Location
1	Output Line 0	Bit 4 of 190h
2	Output Line 1	Bit 5 of 190h
3	Input Line 0	Bit 4 of 191h
4	Input Line 1	Bit 5 of 191h
5	Ground	-

R. Feature Connector (J3: 44-pin 2.0mm IDC)

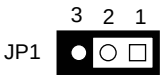
J3 is a multi-function connector which supports signals for AC97 audio, Panel Link, and Intel LAN solution. FabiaTech provides FB4641 (Audio and USB Adapter Board for FB2642, Optional) for Audio functions.

J3	Signal	G	J3	Signal	G	J3	Signal	G	J3	Signal	G
1	+5V	P	23	-ACRST	A	2	+5V	P	24	BITCLK	A
3	CLK0	V	25	SYNC	A	4	CLK1	V	26	SDOUT	A
5	VSYNC	V	27	SDIN0	A	6	HSYNC	V	28	SDIN1	A
7	LTVD0	V	29	LTXD1	L	8	LTVD1	V	30	LTXD0	L
9	LTVD2	V	31	SYNC	L	10	LTVD3	V	32	LTXD2	L
11	LTVD4	V	33	LRXD1	L	12	LTVD5	V	34	LRXD0	L
13	LTVD6	V	35	LCLK	L	14	LTVD7	V	36	LRXD1	L
15	LTVD8	V	37	EEDI	L	16	LTVD9	V	38	EECK	L
17	LTVD10	V	39	EEDO	L	18	LTVD11	V	40	Ground	P
19	-FTBLNK	V	41	EECS	L	20	STALL	V	42	Ground	P
21	FTSCL	V	43	Ground	P	22	FTSDA	V	44	Ground	P

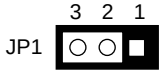
Note 1: "P" in G column means Power signals.
Note 2: "A" in G column means AC97 signals for audio.
Note 3: "V" in G column means Video signals for panel link. (Reserved)
Note 4: "L" in G column means LAN signals for Intel PHY. (Reserved)

6. Others

A. Clear CMOS Data (JP1)



Normal Operation



Clear CMOS Data