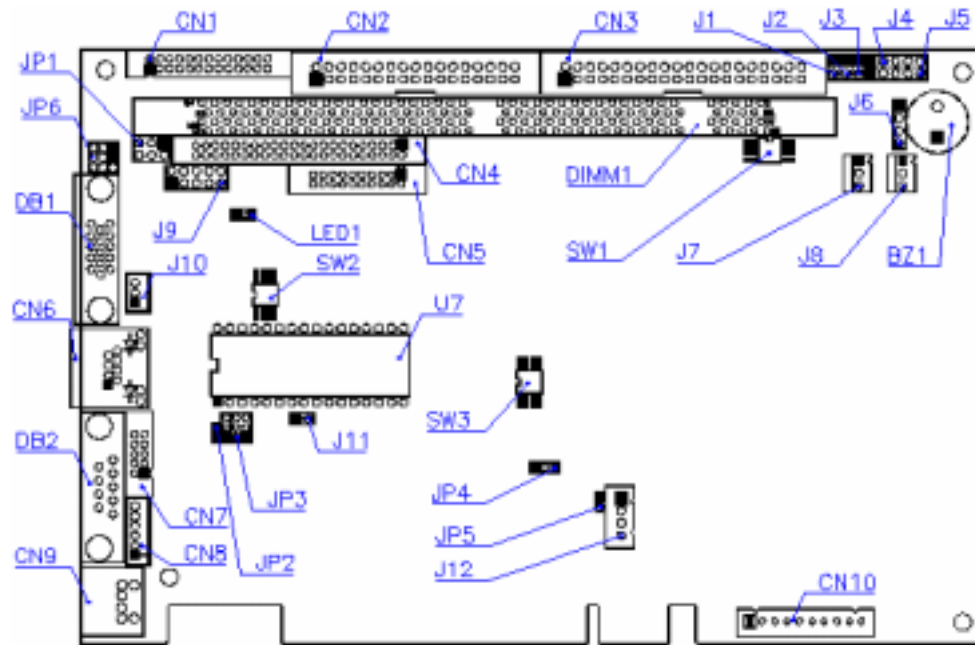


1. Brief

The FB2640 is a PII/P!!! 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 FB2640 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 compact disc includes software utility.
- 1 2-port USB adapter cable with bracket. (Optional item)
- 1 hard copy of this quick setup manual.

4. Features

- * Supports 300~850 MHz Celeron/Coppermine CPU. (Socket 370)
- * Compact size slot card with PICMG PCI expansion bus.
- * Intel 440BX chipset and 128KB or above L2 cache inside the CPUs.
- * Supports one 168-pin DIMM socket (PC-100 SDRAM), 256MB maximum.
- * 100M/10M Ethernet with RJ-45 connector.
- * C&T 69000 chipset provides CRT and LCD interface with 2MB VRAM.
- * Parallel port, floppy and PCI IDE Interface.
- * 1 RS-232C and 1 RS-232C/RS-485/IrDA.
- * PS/2 compatible keyboard and mouse interface.
- * E2KEY function for safe CMOS data keeping. (Optional item)
- * On-board buzzer and LED indicator.
- * Flash BIOS with easy upgrade utility.
- * Software programmable watchdog timer.
- * Provides 1 socket for up to 288MB DiskOnChip.
- * 2 USB ports and hardware monitoring functions.
- * Provides 2 (CPU & case) cooling fan connector for monitoring.
- * Compact size, 185 mm x 122 mm.

5. Connectors and Their Relative Jumpers

A. CPU Base Clock and PCI Clock Select (SW3-3 & SW3-4)

SW3-3	SW3-4	CPU Base Clock	PCI Clock	Remark
Off	Off	66.7 MHz	33.3 MHz	
Off	On	100.0 MHz	33.3 MHz	Factory Preset
Others		Reserved	Reserved	Reserved

B. CPU Internal Clock Multiplier Select (SW1)

SW1-1	SW1-2	SW1-3	SW1-4	Multiplier	Remark
On	On	On	On	2.0	
On	On	Off	On	3.0	
On	On	On	Off	4.0	
On	On	Off	Off	5.0	Factory Preset
On	Off	On	On	2.5	
On	Off	Off	On	3.5	
Others				Reserved	Reserved

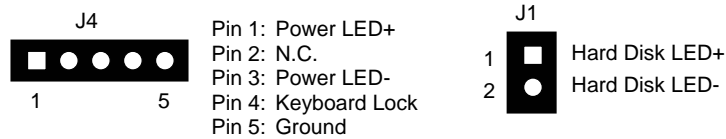
Note: The latest CPUs fix their clock multiplier internally, so it is no need to select SW1 any more.

C. Reset Header (J2)

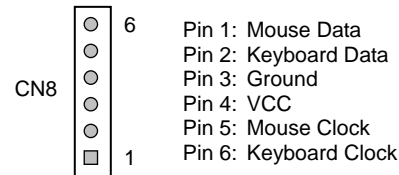
J2 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2640 and restart system booting.

D. Keyboard Lock and Power/HDD LED Indicators (J1 & J4)

J4 (5-pin header) is used to connect keyboard lock switch and external power LED. J1 is the hard disk LED header.

**E. Keyboard and Mouse Connector (CN8 & CN9)**

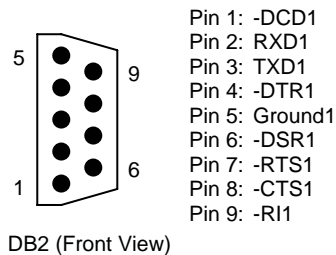
CN9 is a standard PS/2 type keyboard connector, so any PS/2 type keyboard can plug into CN9 directly without extra adapter cable. CN8 provides PS/2 mouse interface, use the included mouse adapter cable to connect between CN8 and standard PS/2 mouse.



Note: In fact, CN8 and CN9 all support PS/2 keyboard and mouse signals and have to order 3-head cable from your supplier.

F. Serial Port Connectors & Jumpers**(1) Serial Port 1 (DB2)**

The DB2 connector on bracket is 9-pin D-type male connector and its pin definition is as follow:

**(2) Serial Port 2 (CN7, JP2, JP3, J5, J10)**

Serial port 2 is designed for multiple proposes. It could be RS-232C or RS-485 by selecting JP3, and JP2 is use to enable or disable terminator if RS-485 mode is selected. Serial port

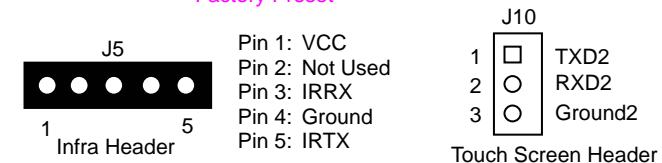
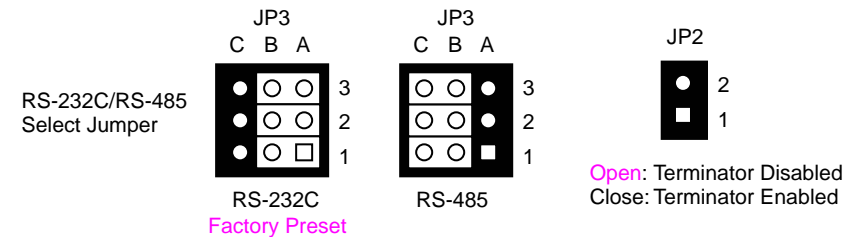
2 also could be configured as Infra (IrDA) interface by changing the setting in BIOS setup program. J5 is use to interface with Infra module. When touch screen module is used, you could connect J10 to touch screen controller directly and internally instead of connect from CN7 connector. The included serial port cable is use to transfer CN7 into standard 9-pin D-type male connector. The following tables and figures show the pin definitions and its usage:

CN7	Signal	DB9
1	-DCD2	1
2	-DSR2	6
3	RXD2	2
4	-RTS2	7
5	TXD2	3
6	-CTS2	8
7	-DTR2	4
8	-RI2	9
9	Ground2	5
10	Case Ground	-

Note: RS-232C mode

CN7	Signal	DB9
1	-	1
2	-	6
3	485-	2
4	-	7
5	485+	3
6	-	8
7	-	4
8	-	9
9	Ground2	5
10	Case Ground	-

Note: RS-485 mode

**G. Parallel Port Connector (CN1: 26-pin 2.0mm IDC)**

The included printer interface cable is used to transfer 26-pin connector into standard parallel port connector (DB25).

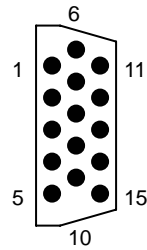
H. Floppy Connector (CN2: 34-pin 2.54mm IDC)

Note that the included floppy cable supports only 720KB, 1.44MB, and 2.88MB floppy disk drives, not for 360KB and 1.2MB.

I. IDE Hard Disk Connector (CN3: 40-pin 2.54mm IDC)

Use the included hard disk cable, you can attach up to two 3.5" hard disk drives.

J. CRT Connector (DB1)



DB1 (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

K. LCD Connectors & Jumper (CN4, CN5, JP1 & SW2)

CN4 is 24-bit LCD interface connector and CN5 provides extra 12-bit for up to 36-bit LCD signals. JP1 is used to select shift clock only for DSTN panel using Panel-Link adapter and SW2 is used to select the LCD panel type that LCD BIOS supported.

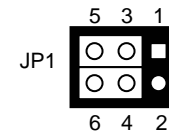
CN4	Signal	CN4	Signal	CN4	Signal	CN4	Signal
1	Ground	23	FP15	2	SHFCLK	24	Ground
3	FP	25	FP16	4	DLP	26	FP17
5	DDE	27	FP18	6	Ground	28	FP19
7	FP0	29	FP20	8	FP1	30	FP21
9	FP2	31	FP22	10	FP3	32	FP23
11	FP4	33	Ground	12	FP5	34	GPO0 (*1)
13	FP6	35	GPO1 (*1)	14	FP7	36	GPO2 (*1)
15	Ground	37	GPO3 (*1)	16	FP8	38	Ground
17	FP9	39	+12V	18	FP10	40	+12V
19	FP11	41	+5V	20	FP12	42	+5V
21	FP13	43	ENABLK	22	FP14	44	ENAVEE

Note *1: GPO0 to GPO3 pins are TTL outputs. They could be used as LCD back light controls.

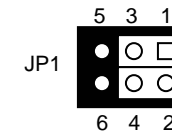
Note *2: Different LCD panel use different BIOS and pin connections. If any trouble when connecting FB2640 with LCD panels, you could contact technical support division of FabiaTech Corporation.

CN5	Signal	CN5	Signal	CN5	Signal	CN5	Signal
1	Ground	11	FP28	2	Reserved	12	FP29
3	Reserved	13	FP30	4	Reserved	14	FP31
5	Reserved	15	Ground	6	Ground	16	FP32
7	FP24	17	FP33	8	FP25	18	FP34
9	FP26	19	FP35	10	FP27	20	Reserved

SW2-4	SW2-3	SW2-2	SW2-1	Panel Type
On	On	On	On	1024*768 Dual Scan STN Color Panel
On	On	On	Off	1280*1024 TFT Color Panel
On	On	Off	On	640*480 Dual Scan STN Color Panel
On	On	Off	Off	800*600 Dual Scan STN Color Panel
On	Off	On	On	640*480 Sharp TFT Color Panel
On	Off	On	Off	640*480 18-bit TFT Color Panel (Factory Preset)
On	Off	Off	On	1024*768 TFT Color Panel
On	Off	Off	Off	800*600 TFT Color Panel
Off	On	On	On	800*600 TFT Color Panel
Off	On	On	Off	800*600 TFT Color Panel
Off	On	Off	On	800*600 Dual Scan STN Color Panel
Off	On	Off	Off	800*600 Dual Scan STN Color Panel
Off	Off	On	On	1024*768 TFT Color Panel
Off	Off	On	Off	1280*1024 Dual Scan STN Color Panel
Off	Off	Off	On	1024*600 Dual Scan STN Color Panel
Off	Off	Off	Off	1024*600 TFT Color Panel



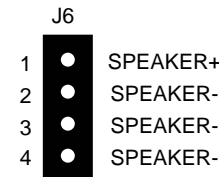
For DSTN Using Panel Link Adapter



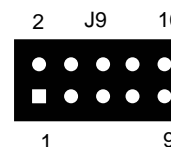
The Others
Factory Preset

L. On-Board Buzzer and External Speaker Header (BZ1 & J6)

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 J6 header.



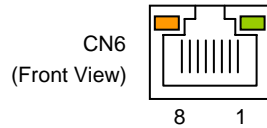
M. USB Connector (J9)



- 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

N. LAN Connector and LED Indicators (CN6: RJ45)

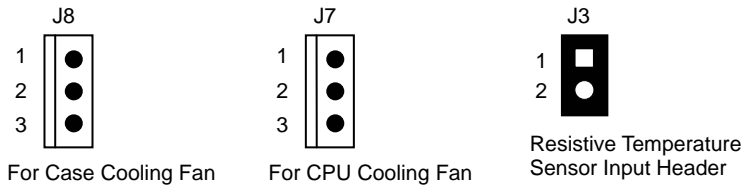
CN6 is a RJ45 connector with 2 LEDs. The up side LED (orange) indicates data is accessing and the down side LED (green) indicates on-line status. (When lighted indicates on-line and off indicates off-line) The following table lists the pin assignment of CN6:



CN6	Signal	CN6	Signal
1	TPTX+	5	FBG1
2	TPTX-	6	TPRX-
3	TPRX+	7	FBG2
4	FBG1	8	FBG2

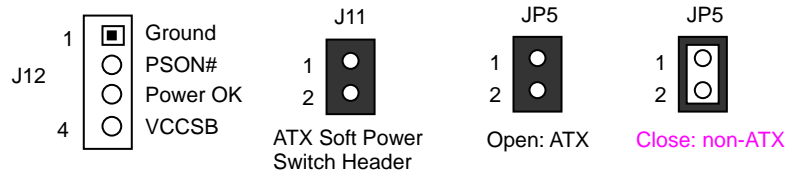
O. Cooling Fan Connectors and Temperature Sensor (J7, J8 & J3)

J7 & J8 are all 3-pin Molex connectors which is use to drive case cooling fan and CPU cooling fan respectively. FB2640 provides 1 CPU temperature sensor inside the CPU socket and one 2-pin header (J3) for connecting a temperature sensor anywhere the system case.



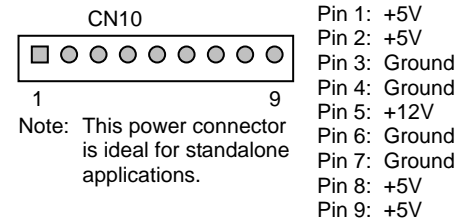
P. Soft Start Connector (J11, J12 & JP5) – for ATX Power Supply Only

When ATX power supply is used, you can connect J12 to ATX control signals from the back plane, and connect J11 to a push bottom switch as soft power switch. If non-ATX power supply is used, please short JP5 with jumper and you don't need to connect J11 and J12.



Note: Non-ATX setting is the default setting for FB2640 card.

Q. Auxiliary Power Connector (CN10: 9-pin 2.5mm JST)

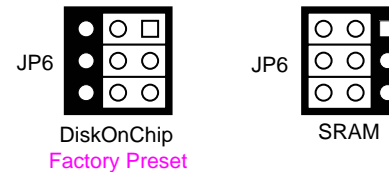


6. Others

A. Clear CMOS Data (JP4)



B. U7 (DOC socket) Memory Type Select (JP6)



C. U7 (DOC Socket) Mapping Segment Select (SW3-1 & SW3-2)

SW3-1	SW3-2	Mapping Segment	Remark
On	On	Reserved	
Off	On	D000:0	
On	Off	D400:0	
Off	Off	D800:0	Factory Preset

Note: It will occupy 8 Kbytes addresses for each mapping selection.