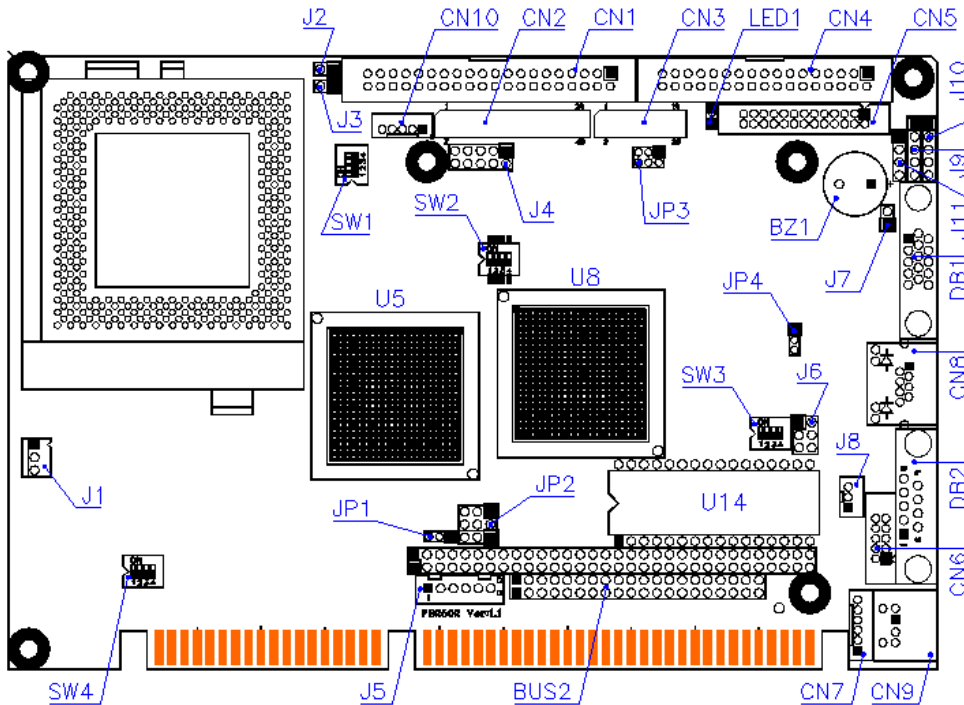


1. Brief

The FB2502 is a Pentium Grade, all in one, half-size, socket-7 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 FB2502 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 compact disc includes software utility.
- 1 2-port USB adapter cable with bracket. (Optional item)
- 1 hard copies of this quick setup manual.

4. Features

- * Supports all dual power socket-7 CPUs with 66.7MHz front side bus (FSB).
- * Compact size slot card with ISA and PC/104 expansion bus.
- * Intel 430TX chipset and 512KB L2 cache RAM.
- * On-board 32MB SDRAM, 64MB maximum.
- * 100M/10M Ethernet with RJ-45 connector.
- * C&T 69000 chipset provides CRT and LCD interface with 2MB VRAM.
- * Parallel port, floppy, PCI IDE Interface, 1 RS-232C and 1 RS-232/RS-422/RS-485/IrDA.
- * PS/2 compatible keyboard and mouse interface.
- * E2KEY function for safe CMOS data keeping. (Optional item)
- * Flash BIOS with easy upgrade utility.
- * Software programmable watchdog timer, On-board buzzer and LED indicator.
- * Provides 1 socket for up to 288MB DiskOnChip or 512KB SRAM disk.
- * 2 USB ports and 1 CPU cooling fan connector for non-low power CPUs.
- * Provides 2 SMD type SRAM space for up to 1.5MB SRAM disk. (Optional item)
- * Compact size, 185 mm x 122 mm.

5. Connectors and Their Relative Jumpers

A. CPU Internal Clock Multiplier Select (SW1)

SW1				Internal Clock Multiplier			Remark
1	2	3	4	Intel P55C	LP P55C	AMD K6/K6-2	
On	On	On	Off	2.5x	Reserved	Reserved	Intel MMX-166
Off	On	On	Off	3.0x	Reserved	Reserved	Intel MMX-200
Off	Off	On	Off	3.5x	Reserved	Reserved	Intel MMX-233
On	On	On	Off	Reserved	2.5x	Reserved	Intel LP MMX-166
On	On	Off	Off	Reserved	4.0x	Reserved	Intel LP MMX-266
On	On	Off	Off	Reserved	Reserved	2.5x	AMD K6/K6-2-166
Off	On	Off	Off	Reserved	Reserved	3.0x	AMD K6/K6-2-200
Off	Off	Off	Off	Reserved	Reserved	3.5x	AMD K6/K6-2-233
On	Off	Off	On	Reserved	Reserved	4.0x	AMD K6-2-266
On	On	Off	On	Reserved	Reserved	4.5x	AMD K6-2-300
Off	On	Off	On	Reserved	Reserved	5.0x	AMD K6-2-333
Off	Off	Off	On	Reserved	Reserved	5.5x	AMD K6-2-366
On	Off	Off	Off	Reserved	Reserved	6.0x	AMD K6-2-400

Note: CPU base clock is 66.7MHz and PCI clock is 33.3MHz are all fixed in factory.

B. V-Core and V-IO Voltage Select (SW4)

SW4-1	SW4-2	SW4-3	V-Core	Remark
Off	On	On	1.9V	(*1)
On	On	On	2.0V	
On	Off	Off	2.3V	(*2)
Off	Off	On	2.85V	(*3)
On	Off	On	3.1V	
Others are reserved				

SW4-4	V-IO	Remark
Off	3.3V	(*2) (*3)
On	2.5V	(*1)

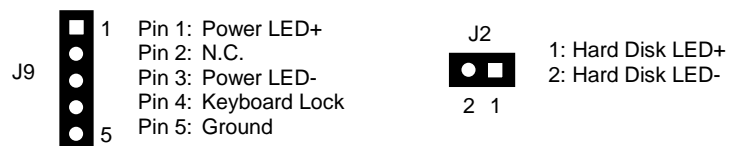
Note 1: For Intel LP P55C CPUs only
 Note 2: For AMD K6-2 CPUs
 Note 3: For Intel MMX and AMD K6 CPUs

C. CPU Select Table (SW1 & SW4)

CPU Model	SW1-1	SW1-2	SW1-3	SW1-4	V-Core	V-IO	Remark
Intel MMX-166 (P55C)	On	On	On	Off	2.85V	3.3V	
Intel MMX-200 (P55C)	Off	On	On	Off	2.85V	3.3V	
Intel MMX-233 (P55C)	Off	Off	On	Off	2.85V	3.3V	
Intel MMX-166 (Low Power)	On	On	On	Off	1.9V	2.5V	
Intel MMX-266 (Low Power)	On	On	Off	Off	1.9V	2.5V	Default
AMD K6-166	On	On	Off	Off	2.85V	3.3V	
AMD K6-200	Off	On	Off	Off	2.85V	3.3V	
AMD K6-233	Off	Off	Off	Off	2.85V	3.3V	
AMD K6-2-266	On	Off	Off	On	2.3V	3.3V	
AMD K6-2-300	On	On	Off	On	2.3V	3.3V	
AMD K6-2-333	Off	On	Off	On	2.3V	3.3V	
AMD K6-2-366	Off	Off	Off	On	2.3V	3.3V	
AMD K6-2-400	On	Off	Off	Off	2.3V	3.3V	

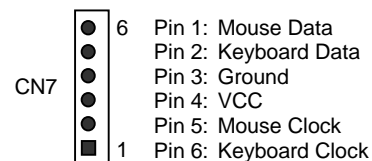
D. Keyboard Lock and Power/WD/HDD LED Indicators (LED1, J9 & J2)

LED1 is the on-board power/WD LED and J9 (5-pin header) is used to connect keyboard lock switch and external power/WD LED. When the watchdog is disabled, LED1 indicates the main power is ready (lights) or not (dark). When the watchdog is enabled, LED1 will be blinking in 1 cycle per second. J2 is the hard disk LED header.



E. Keyboard and Mouse Connector (CN9 & CN7)

CN9 is a standard PS/2 type keyboard connector, so any PS/2 type keyboard can plug into CN9 directly without extra adapter cable. CN7 provides PS/2 mouse interface, use the included mouse adapter cable to connect between CN7 and standard PS/2 mouse.



Note: In fact, CN7 and CN9 all support PS/2 keyboard and mouse signals and have to order 3-head cable from your supplier.

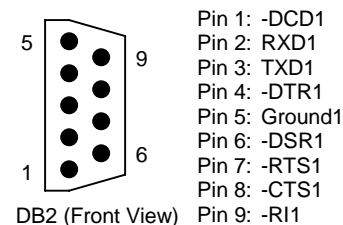
F. Parallel Port Connector (CN5: 26-pin 2.0mm IDC)

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

G. 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:



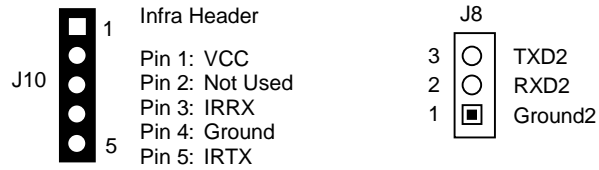
(2) Serial Port 2 (CN6, SW3, J8, and J10)

Serial port 2 is designed for multiple purposes. It could be RS-232C, RS-422 or RS-485 by selecting SW3, and SW3-4 is used to enable or disable terminator if RS-422 or RS-485 mode is selected. Serial port 2 also could be configured as Infra (IrDA) interface by changing the setting in BIOS setup program. J10 is used to interface with Infra module. When touch screen module is used, you could connect J8 to touch screen controller directly and internally instead of connect from CN6 connector. The included serial port cable is used to transfer CN6 into standard 9-pin D-type male connector. The following tables and figures show the pin definitions and its usage:

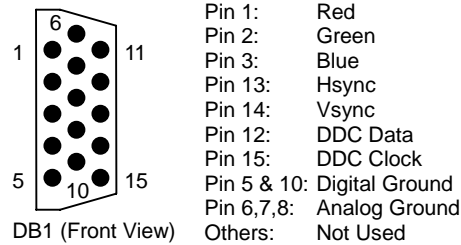
CN6	RS-232C	RS-422	RS-485	DB-9
1	-DCD2		-	1
2	-DSR2		-	6
3	RXD2	RXD-	485-	2
4	-RTS2	TXD-	-	7
5	TXD2	RXD+	485+	3
6	-CTS2	TXD+	-	8
7	-DTR2		-	4
8	-RI2		-	9
9	Ground2	Ground2	Ground2	5
10	Case Ground	Case Ground	Case Ground	-

SW3-1	SW3-2	Mode of Port 2	Remark
Off	Off	RS-232C	Default
On	Off	RS-485	
On	On	RS-422	

SW3-4	Terminator Resistor	Remark
Off	Disabled	Default
On	Enabled	



H. CRT Connector (DB1)



I. LCD Connectors, Jumper & Switch (CN2, CN3, CN10, JP3 & SW2)

CN2 is 24-bit LCD interface connector and CN3 provides extra 12-bit for up to 36-bit LCD signals. CN10 is used to drive the inverter board and use JP3 to select shift clock source of LCD panel controls. The following tables and figures list for pin definitions of CN2, CN3 and CN10, panel type selection of SW2 and JP3.

CN2	Signal	CN2	Signal	CN2	Signal	CN2	Signal
1	+5V (*2)	21	FP12	2	+5V (*2)	22	FP13
3	Ground	23	FP14	4	Ground	24	FP15
5	+3.3V (*2)	25	FP16/SCK	6	+3.3V (*2)	26	FP17
7	N.C. (*2)	27	FP18	8	Ground	28	FP19
9	FP0	29	FP20	10	FP1	30	FP21
11	FP2	31	FP22	12	FP3	32	FP23
13	FP4	33	Ground	14	FP5	34	Ground
15	FP6	35	SHFCLK	16	FP7	36	FP
17	FP8	37	DE	18	FP9	38	LP
19	FP10	39	ENABLK	20	FP11	40	ENAVEE

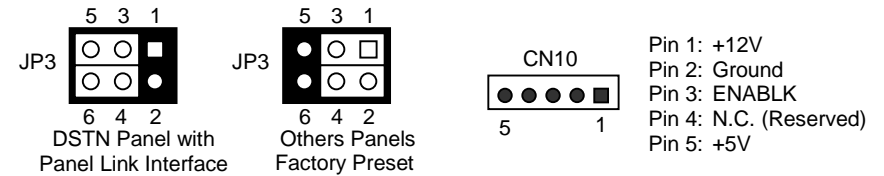
CN3	Signal	CN3	Signal	CN3	Signal	CN3	Signal
1	Ground	11	FP32	2	Ground	12	FP33
3	FP24	13	FP34	4	FP25	14	FP35
5	FP26	15	Ground	6	FP27	16	Ground
7	FP28	17	VB0 (*1)	8	FP29	18	VB1 (*1)
9	FP30	19	VB2 (*1)	10	FP31	20	VB3 (*1)

Note 1: Signals from VB0 to VB3 pins are 3.3V level digital outputs. They could be used as LCD back light controls.

Note 2: VDDSAFE5, VDDASFE3, and VCON are optional signals for these pins.

Note 3: If any trouble when connecting FB2502 with LCD panels, you could contact technical support division of FabiaTech Corporation.

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



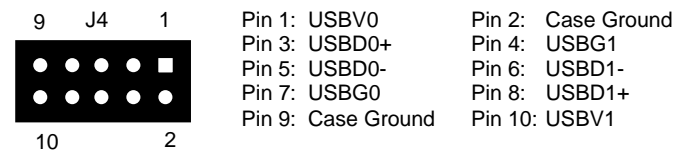
J. Floppy Connector (CN4: 34-pin 2.54mm IDC)

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

K. IDE Hard Disk Connector (CN1: 40-pin 2.54mm IDC)

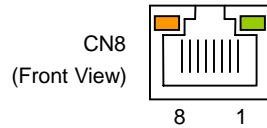
Use the included hard disk cable, you can attach up to two 3.5" hard disk drives.

L. USB Connector (J4)



M. LAN Connector and LED Indicators (CN8: RJ45)

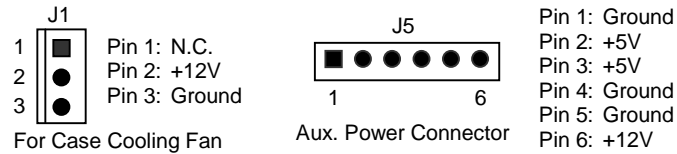
CN8 is a RJ45 connector with 2 LEDs. The left side LED (orange) indicates data is accessing and the right side LED (green) indicates on-line status. (When lighted indicates on-line and off indicates off-line) The following table lists the pin assignment of CN8:



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

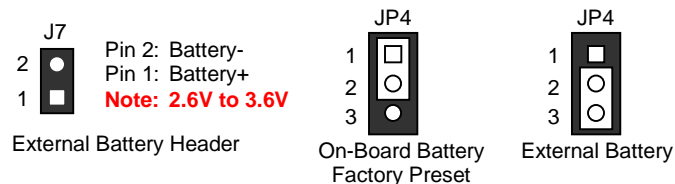
N. Cooling Fan Connector and Aux. Power Connector (J1 & J5)

J1 is 3-pin Molex connector, which is use to drive CPU cooling fan if Non-Low-Power CPUs are used. And J5 is the power connector for FB2502 is used with stand-alone applications.



O. External Battery Header and Battery Select Jumper (J7 & JP4)

J7 is used to connect an external battery pack if on-board Lithium battery is empty, and please setting JP4 properly of on-board battery or external battery.

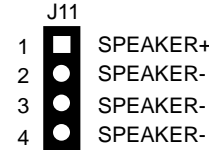


P. Reset Header (J3)

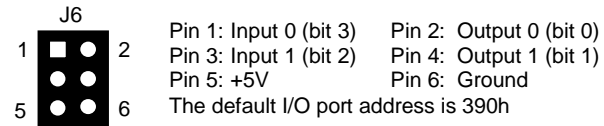
J3 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2502 and restart system booting.

Q. On-Board Buzzer and External Speaker Header (BZ1 and J11)

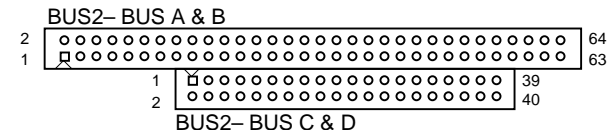
BZ1 is the on-board buzzer and you can use one 2-pin or 4-pin cable connects between an extra 8 ohms speaker with J11 header.



R. TTL I/O Connector (J6: 6-pin 2.54mm header)

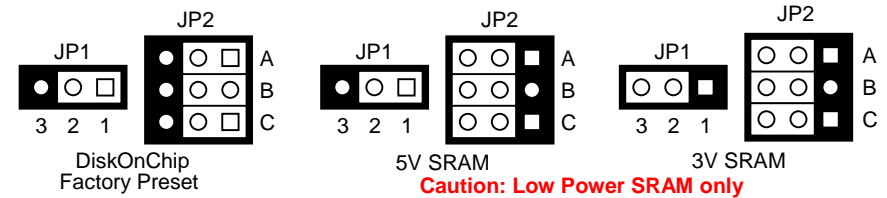


S. PC/104 Connectors (BUS2: 64-pin IDC & 40-pin IDC)



6. Others

A. U14 (DOC/SRAM Socket) Memory Type Select (JP1 and JP2)



B. U14 (DOC/SRAM Socket) and On-Board SRAM Mapping Segment Select (SW3-3)

SW3-3	U14 (DOC Socket)	U14 (SRAM Socket) & On-Board SRAM	Remark
Off	CC00h:0 (*1)	CE00h:0 (*2)	Factory Preset
On	D800h:0	DA00h:0	

Note 1: It will occupy 8 Kbytes addresses for each mapping selection.
 Note 2: It will not occupy any memory address if no on-board SRAM exist.