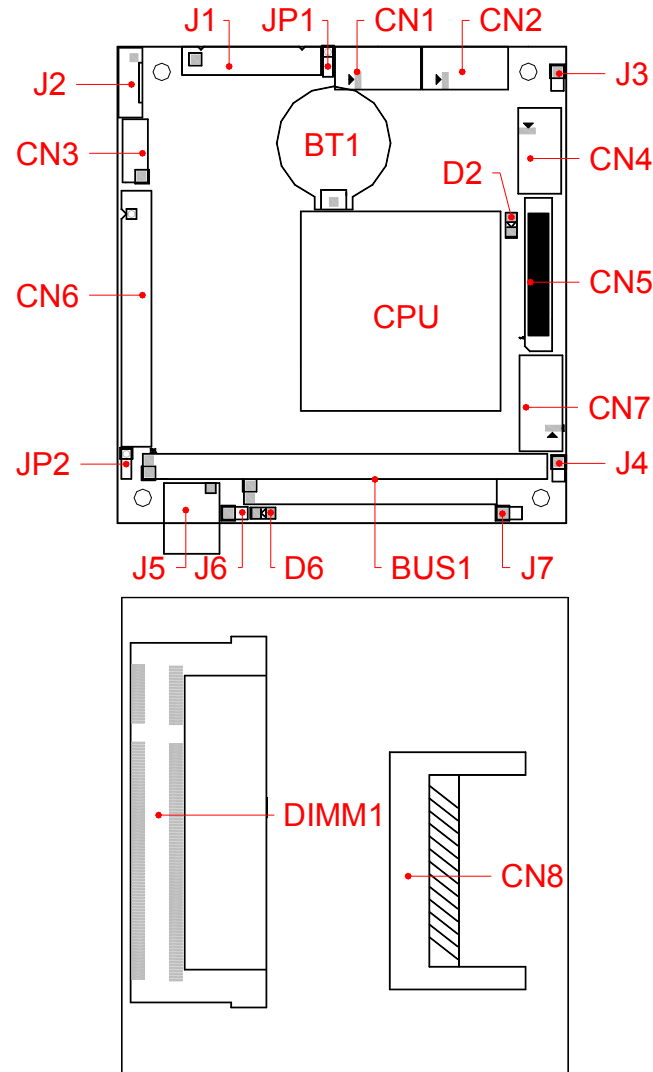


## 1. Brief

The FB2612 series is a Low power AMD LX, all in one, PC/104 CPU board. This user's quick setting provides the jumper and switch settings, connector location, and their pin assignment.

## 2. Board Placement



## 3. Packing List

- 1 FB2612x all-in-one PC/104 CPU board.
- 1 VGA (CRT interface) adapter cable.
- 1 44-pin hard disk drive interface cable. (Optional)
- 2 serial port adapter cables.
- 1 PS/2 keyboard and mouse port adapter cable.
- 1 10-pin LAN adapter cable with FB4605A transfer board.
- 1 USB cable, 1 Audio cable, and 1 FB4641x Audio adapter board. (All are optional items)
- 1 compact disc includes software utilities and manuals.

## 4. Features

- \* On-board AMD LX-800 low power CPU with fanless operation
- \* AMD Geode CS5536 chipset with UMA architecture.
- \* Support 16-bit ISA bus, but without DMA transfer function.
- \* 1 So-DIMM socket for up to 1GB DDR-333/400 RAM modules.
- \* One 10/100 base-TX Ethernet port.
- \* Supports CRT and LCD interface with up to 254MB shared memory.
- \* Provides AC97 Audio function and software programmable watchdog timer.
- \* 2 RS-232, 2 USB (V2.0), 1 PCI IDE and 1 CompactFlash socket.
- \* PS/2 compatible keyboard and mouse interface.
- \* Flash BIOS with easy upgrade utility.
- \* Power requires +5V only, 1.3A maximum.
- \* PC/104 form factor, 90.2 mm x 95.9 mm (3.55" x 3.775")

## 5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	COM2 Connector (10-pin IDC)	J1	LAN Connector (10-pin JST)
CN2	COM1 Connector (10-pin IDC)	J2	KB/MS Connector (6-pin JST)
CN3	USB #1 & #2 Connector (J2*5)	J3	External Power LED Header (J1*2)
CN4	CRT Connector (10-pin IDC)	J4	External Speaker Header (J1*2)
CN5	LCD Connector (40-pin DF-13)	J5	Power Connector (4-pin)
CN6	44-pin IDE Connector (44-pin IDC)	J6	External Hard Disk LED Header (J1*2)
CN7	AC97 Audio Connector (12-pin IDC)	J7	Reset Header (J1*2)
CN8	CompactFlash Socket (50-pin)	BUS1	PC/104 BUS (16-bit ISA)
		DIMM1	DDR RAM Socket
JP1	Clear CMOS data Jumper (J1*3)	D2	On-Board Power LED (Green)
JP2	CF Master/Slave Select (J1*3)	D6	Reserved

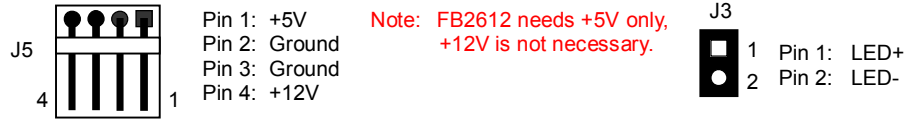
## 6. Connectors and Their Relative Jumpers

### A. Reset Header (J7)

J7 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2612 and restart system booting.

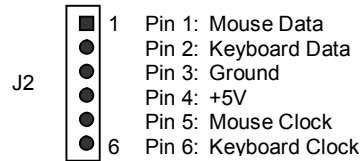
## B. Power Connector and Power/Watchdog LED (J5, D2, and J3)

D2 is used to indicate as powered-on when it lighted, and watchdog is enabled when it is blinking. The watchdog will be disabled and D2 will always lighted after system reset. J3 is a 2-pin header for connecting an external power/watchdog LED.



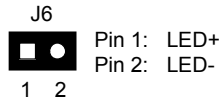
## C. Keyboard and Mouse Connector (J2)

J2 provides PS/2 keyboard and mouse interface, use the included adapter cable to connect between J2 and standard PS/2 devices.



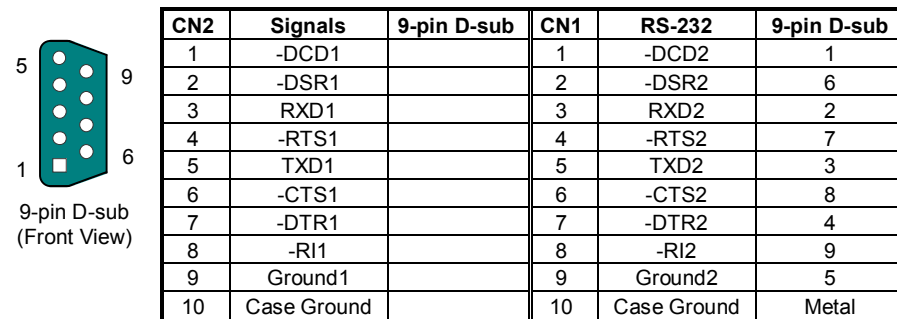
## D. IDE Hard Disk Connector and Access LED Header (CN6 and J6)

Use optional 44-pin hard disk cable you can attach up to two 2.5" hard disk drives.



## E. Serial Port Connectors (CN2 and CN1)

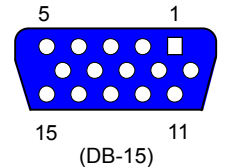
Use the included serial adapter cables for transferring to standard RS-232 connector (9-pin D-sub).



## F. CRT Connector (CN4)

The following table and figure illustrate the pin definition of CN4 and D-sub 15-pin on the CRT adapter cable:

CN4	Signal	DB-15	CN4	Signal	DB-15
1	RED	1	2	Case Ground	Case
3	GREEN	2	4	Digital Ground	5,10
5	BLUE	3	6	Analog Ground	6,7,8
7	VSYNC	14	8	DDC Data	12
9	HSYNC	13	10	DDC Clock	15



## G. LCD Connector (CN5: 40-pin DF13)

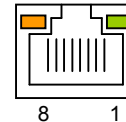
CN5 is a 24-bit TTL LCD interface connector for widely LCD panel applications.

CN5	Signal	CN5	Signal	CN5	Signal	CN5	Signal
1	+5V	21	FP12	2	+5V	22	FP13
3	Ground	23	FP14	4	Ground	24	FP15
5	+3.3V	25	FP16	6	+3.3V	26	FP17
7	N.C.	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	FPCLK	16	FP7	36	FPVS
17	FP8	37	FPDE	18	FP9	38	FPHS
19	FP10	39	ENAVDD	20	FP11	40	ENAVEE

Note: If any trouble when connecting FB2612x with LCD panels, you could contact technical support division of FabiaTech Corporation.

## H. LAN Connector and LED Indicators (J1: 10-pin 2.54mm Header)

J1 provides twist-pair signals of LAN port. Use the included adapter board (FB4605A) with cable to transfer to standard RJ45 connector. 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 figure and table list the pin assignment of RJ45 connector on the FB4605A LAN adapter board:

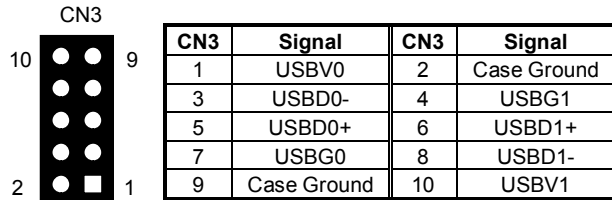


RJ45 connector on FB4605A adapter board (Front View)

FB4605A	Signal	FB4605A	Signal
1	TPTX2+	5	FBG12
2	TPTX2-	6	TPRX2-
3	TPRX2+	7	FBG22
4	FBG12	8	FBG22

## I. USB and Audio Connectors (CN3 and CN7), and Connectors on FB4641x Adapter Board

CN3 supports 2 port USB signals and CN7 provides AC97 signals for Audio function. Use the FB4641x (USB and Audio Adapter Board) and cables for your USB and Audio applications.



CN7	Signal	CN7	Signal
1	AC97_CLK	2	N. C.
3	+5V	4	AC97_SYNC
5	Ground	6	Ground
7	+3.3V	8	AC97_RST#
9	AC97_SDO	10	N. C.
11	AC97_SDI0	12	N. C.

Audio connectors on the FB4641x adapter board



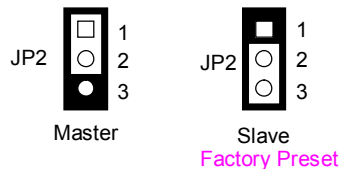
Note that the FB4641x and cables are optional items.

## J. SoDIMM Socket (DIMM1)

DIMM1 (Located on the solder side) supports 200-pin, 2.5V, and DDR-333/400 DRAM modules with size of 128MB, 256MB, 512MB, and 1GB.

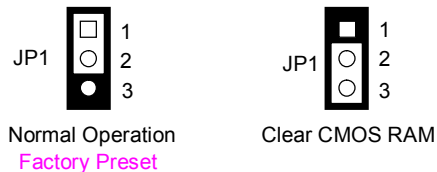
## K. CompactFlash Socket and Master/Slave Select (CN8 and JP2)

The CompactFlash socket CN8 (on the solder side) supports 3.3V CompactFlash and MicroDrives. JP2 is used to select master/slave device of this CompactFlash socket.

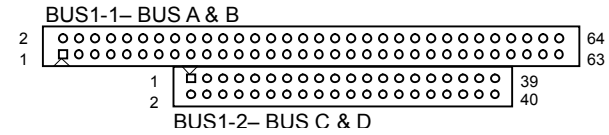


Caution: Be sure to avoid the same master/slave setting with which connects to IDE (CN6) connector, if you use CN8 and CN6 simultaneously

## L. CMOS RAM Select Jumper (JP1)



## M. PC/104 Connectors (BUS1: 64-pin IDC & 40-pin IDC)



Row-A	Signal	Row-A	Signal	Row-B	Signal	Row-B	Signal
1	-IOCHK	33	SA14	2	Ground	34	-DACK1
3	SD7	35	SA13	4	RSTDRV	36	DRQ1
5	SD6	37	SA12	6	+5V	38	-REFSH
7	SD5	39	SA11	8	IRQ9	40	BUSCLK
9	SD4	41	SA10	10	N.C. (-5V)	42	IRQ7
11	SD3	43	SA9	12	DRQ2	44	IRQ6
13	SD2	45	SA8	14	N.C. (-12V)	46	IRQ5
15	SD1	47	SA7	16	-ZWS	48	IRQ4
17	SD0	49	SA6	18	+12V	50	IRQ3
19	IORDY	51	SA5	20	N.C. (KEY)	52	-DACK2
21	AEN	53	SA4	22	-MEMW	54	TC
23	SA19	55	SA3	24	-MEMR	56	ALE
25	SA18	57	SA2	26	-IOW	58	+5V
27	SA17	59	SA1	28	-IOR	60	OSC
29	SA16	61	SA0	30	-DACK3	62	Ground
31	SA15	63	Ground	32	DRQ3	64	Ground

Row-C	Signal	Row-C	Signal	Row-D	Signal	Row-D	Signal
1	Ground	21	-MEWR16	2	Ground	22	-DACK5
3	-SBHE	23	SD8	4	-MEM16	24	DRQ5
5	LA23	25	SD9	6	-IO16	26	-DACK6
7	LA22	27	SD10	8	IRQ10	28	DRQ6
9	LA21	29	SD11	10	IRQ11	30	-DACK7
11	LA20	31	SD12	12	IRQ12	32	DRQ7
13	LA19	33	SD13	14	IRQ15	34	+5V
15	LA18	35	SD14	16	IRQ14	36	-MASTER
17	LA17	37	SD15	18	-DACK0	38	Ground
19	-MERD16	39	N.C. (KEY)	20	DRQ0	40	Ground

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