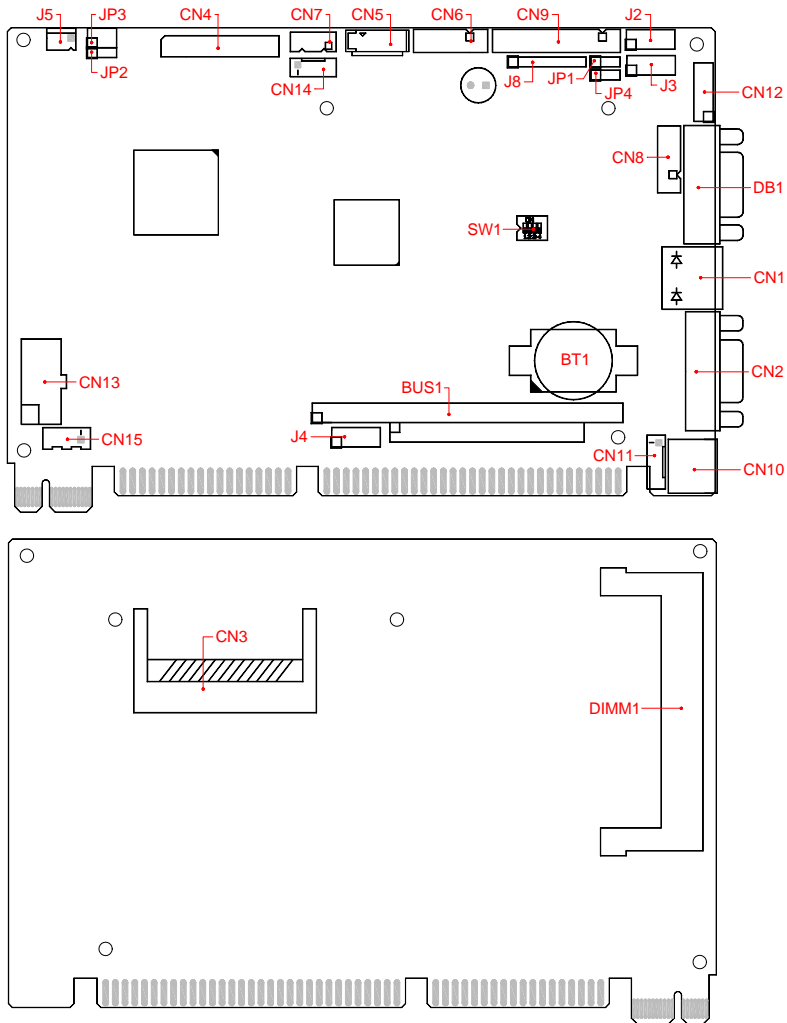


## 1. Brief

The FB2607 series is an all in one, ISA half-size CPU card with low power Intel® Atom N2600 processor. This user's quick setting provides the jumper and switch settings, connector location, and their pin assignment.

## 2. Board Placemen



## 3. Packing List

### A. Standard Items

- 1 FB2607(x) all-in-one CPU board.
- 1 SATA hard disk drive interface cable.
- 1 serial + 1 parallel port interface cable with bracket.
- 1 dual USB adapter cable with bracket.
- 1 compact disc includes this quick setup manual, user's manual, and software utilities.

### B. Optional Items

- 1 Y-type (3-end) keyboard and mouse port adapter cable. (P/N: 7003000008G)
- 1 Audio with USB Kit (USB and Audio adapter board (FB4706) with 2 cables).

## 4. Features

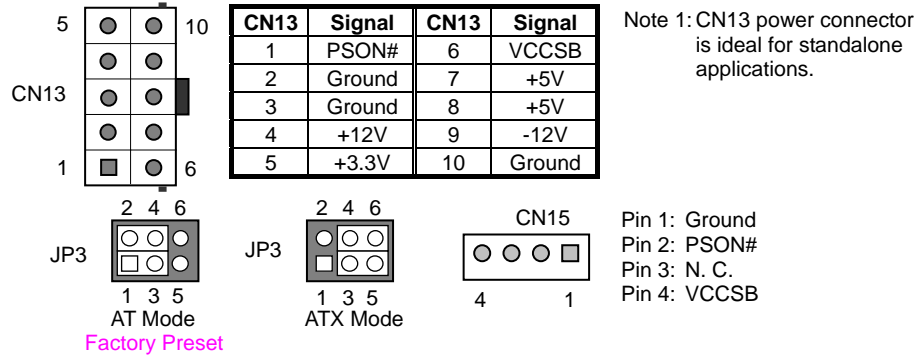
- \* On-board Intel® Atom N2600 CPU (1.6GHz, 1MB L2, 800MHz FSB, 3.5W) with fanless operation.
- \* Compact size slot card with Intel NM10 Express chipset and ISA+PC/104+PCIex1 expansion bus.
- \* Supports 1 SoDIMM socket for up to 2GB DDR3 RAM.
- \* Provides HD Audio function and Onboard VGA port supports CRT and LVDS interface.
- \* 1 SATA connector and 1 CFAST socket.
- \* 1 GbE, 4 USB, 1 parallel, 1 RS-232, 1 RS-232/422/485, and PS/2 KB/MS interface ports.
- \* 8-line TTL I/O, On-board buzzer, and hardware monitoring functions.
- \* Software programmable watchdog timer and Flash BIOS with easy upgrade utility.
- \* Compact size, 185 mm x 122 mm.

## 5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	LAN Connector (RJ45 w/LEDs)	J2	USB #1 & #2 Connector (J2*5)
CN2	VGA Connector (15-pin D-sub)	J3	USB #3 & #4 Connector (J2*5)
CN3	CFAST Socket (24-pin)	J4	LPC Interface (J2*5)
CN4	LVDS Connector (40-pin DF13)	J5	Cooling Fan Connector (3-pin Molex)
CN5	7-pin SATA Connector	J8	Reserved
CN6	HD Audio Connector (12-pin)		
CN7	TTL I/O Connector (2*5-pin JST)	JP1	Clear CMOS Jumper (J1*3)
CN8	COM2 Connector (10-pin IDC)	JP2	LCD Panel VCC Select (J1*3)
CN9	Parallel Port Connector (26-pin IDC)	JP3	AT/ATX Mode Select (J2*3)
CN10	PS/2 KB/MS Connector (6-pin mDIN)	JP4	RS422/485 Terminator Select (J1*3)
CN11	PS/2 KB/MS Connector (6-pin JST)		
CN12	Multi-Function Header (J2*6)	BUS1	PC/104 Bus (104-pin)
CN13	Mini ATX Power Connector (10-pin)	BUS2/3	ISA Bus (Golden Finger)
CN14	LCD Power Connector (5-pin JST)	BUS4	PCIex1 Bus (36-pin)
CN15	ATX Signals Connector (4-pin JST)		
		BZ1	On-board Buzzer
DB1	COM1 Connector (9-pin D-sub)	SW1	COM2 Mode Select (SW DIP-4)
DIMM1	DDR3 So-DIMM Socket (204-pin)		

## 6. Connectors and Their Relative Jumpers

### A. Auxiliary Power Connector (CN13), ATX Power Signal Connectors and AT/ATX Select Jumper (CN15 and JP3)

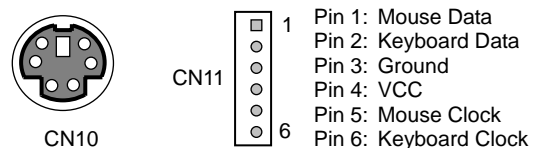


### B. SoDIMM Socket (DIMM1)

DIMM1 (Located on the solder side) supports 204-pin, 1.5V, and DDR3 DRAM modules with size of 1GB and 2GB.

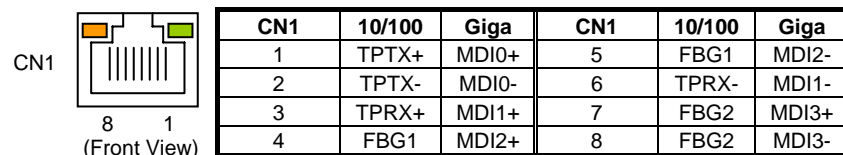
### C. Keyboard and Mouse Connectors (CN10 and CN11)

CN10 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN10 directly without extra adapter cable. Use the keyboard+mouse adapter cable (optional), you can connect keyboard and mouse simultaneously. CN11 is another way to attach keyboard and mouse with optional adapter cable.



### D. LAN Connector and LED Indicators (CN1)

CN1 is a standard RJ45 connector with 2 LEDs. The orange LED indicates data is accessing and the green LED indicates on-line status. (When lighted indicates on-line and off indicates off-line)



### E. Parallel Port Connector (CN9: 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).

### F. Serial Port Connectors & Selector (DB1, CN8, SW1, and JP4)

There are 2 connectors, 1 switch, and 1 jumper that served for onboard 2 serial ports. The following table and figure list the combination and pin definition of them. Use the included serial cables for transferring 10-pin IDC to 9-pin D-sub connector. (Serial Port 2)

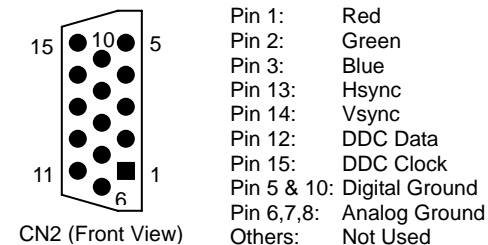
Functional connector, header, switch, and jumper of serial ports	COM1	COM2
RS-232 Signals	DB1	CN8
RS-422 Signals	-	CN8
RS-485 Signals	-	CN8
RS-422/485 Terminator Select Mode Select	-	JP4
	-	SW1

DB1	Signals	D-sub 9	CN8	RS-232	RS-422	RS-485
1	-DCD1	1	1	-DCD2		-
6	-DSR1	6	2	-DSR2		-
2	RXD1	2	3	RXD2	RX-	485-
7	-RTS1	7	4	-RTS2	TX-	-
3	TXD1	3	5	TXD2	RX+	485+
8	-CTS1	8	6	-CTS2	TX+	-
4	-DTR1	4	7	-DTR2		-
9	-RI1	9	8	-RI2		-
5	Ground1	5	9	Ground2		
Metal	Case Ground	Metal	10	Case Ground		



Note: SW1 is left empty. FB2607 do not support hardware settings in standard version.

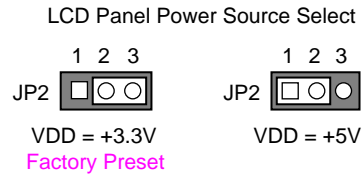
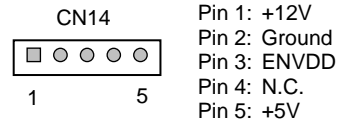
### G. VGA Connector (CN2)



## H. LCD Connectors and Select Jumper (CN4, CN14, and JP2)

CN4	Signal	CN4	Signal
1	VDD	2	VDD
3	Ground	4	Ground
5	VDD	6	VDD
7	XDA0-	8	YDA0-
9	XDA0+	10	YDA0+
11	Ground	12	Ground
13	XDA1-	14	YDA1-
15	XDA1+	16	YDA1+
17	Ground	18	Ground
19	XDA2-	20	YDA2-
21	XDA2+	22	YDA2+
23	Ground	24	Ground
25	XLCK-	26	YDA3-
27	XLCK+	28	YDA3+
29	Ground	30	Ground
31	XDA3-	32	AUX-
33	XDA3+	34	AUX+
35	Ground	36	Ground
37	LDCC_CLK	38	N. C.
39	LDDC_DAT	40	EDPHPD

CN4 supports 18-bit LVDS LCD signals, and CN14 is the power connector for inverter board.

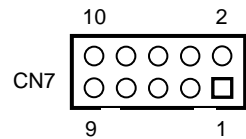


Note: If any trouble when connecting FB2607 with LCD panels, you could contact technical support division of FabiaTech Corporation.

## I. SATA Connector and CFast Socket (CN5 and CN3)

Use the included 7-pin SATA cable, you can attach one SATA disk drive via CN5. CN3 is the CFast socket for CFast modules.

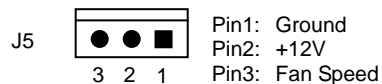
## J. TTL I/O Connector (CN7: 2\*5-pin 2.0mm JST)



CN7	TTL Lines	CN7	TTL Lines	Bit Location
1	GPIO 0	6	GPIO 5	Please refer to User's Manual for bit location details.
2	GPIO 1	7	GPIO 6	
3	GPIO 2	8	GPIO 7	
4	GPIO 3	9	Ground	
5	GPIO 4	10	Ground	

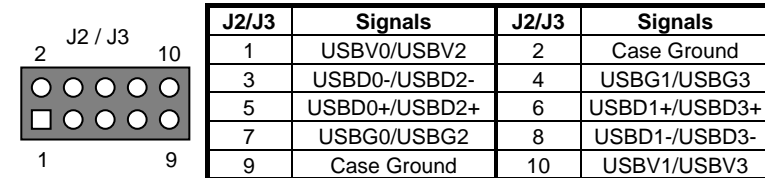
## K. Cooling Fan Connector (J5)

J5 is 3-pin Molex connector which is used to drive CPU cooling fan if necessary.

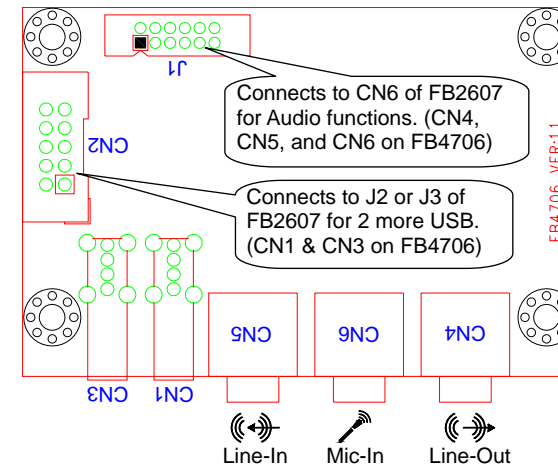
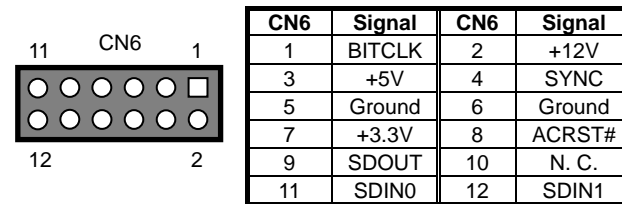


## L. Audio and USB Connectors (CN6, J2, and J3)

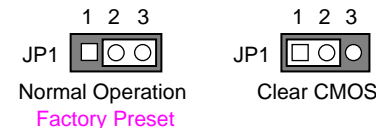
J2 and J3 support 2 port USB signals each. Use the included adapter cable connects to J2 or J3, you can attach up to 2 USB devices.



For Audio or 4 USB ports applications, an Audio with USB kit (optional) is necessary. The Audio with USB kit includes 1 FB4706 adapter board, one 12-pin Audio cable, and one 10-pin USB cable. The following figure shows CN6 signals, function connectors of FB4706 board, and how to connect cables between FB2607 with FB4706.

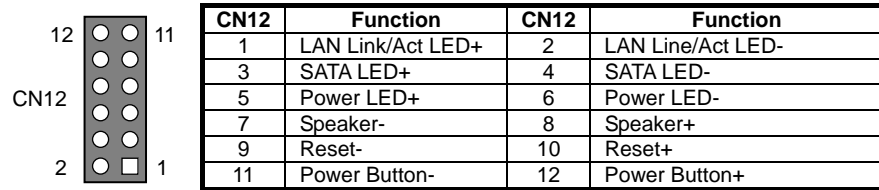


## M. Clear CMOS Data (JP1)

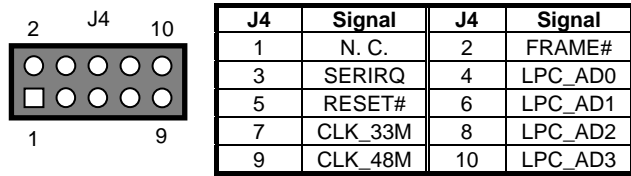


Note: Close pin 1 and 2 of JP1 at least 3 seconds, then return to normal operation position.

**N. Multi-Fubction Header (CN12, Including Reset, External Speaker, and Indicating LEDs)**



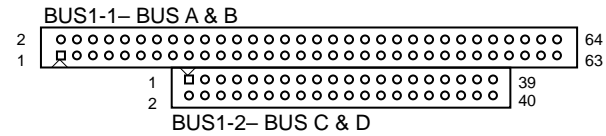
**O. LPC (Low Pin Count) Connector (J4)**



**P. PCIe\*1 Connector (BUS4)**

Row-A	Signal	Row-B	Signal
1	PRSNT1#	1	+12V
2	+12V	2	+12V
3	+12V	3	+12V
4	Ground	4	Ground
5	N. C.	5	SMBCLK
6	N. C.	6	SMBDATA
7	N. C.	7	Ground
8	N. C.	8	+3.3V
9	+3.3V	9	N. C.
10	+3.3V	10	+3.3VSB
11	PWRGD	11	WAKE#
12	Ground	12	N. C.
13	PCIECLK+	13	Ground
14	PCIECLK-	14	PCIETX+
15	Ground	15	PCIETX-
16	PCIERX+	16	Ground
17	PCIERX-	17	N. C.
18	Ground	18	Ground

**Q. 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	-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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