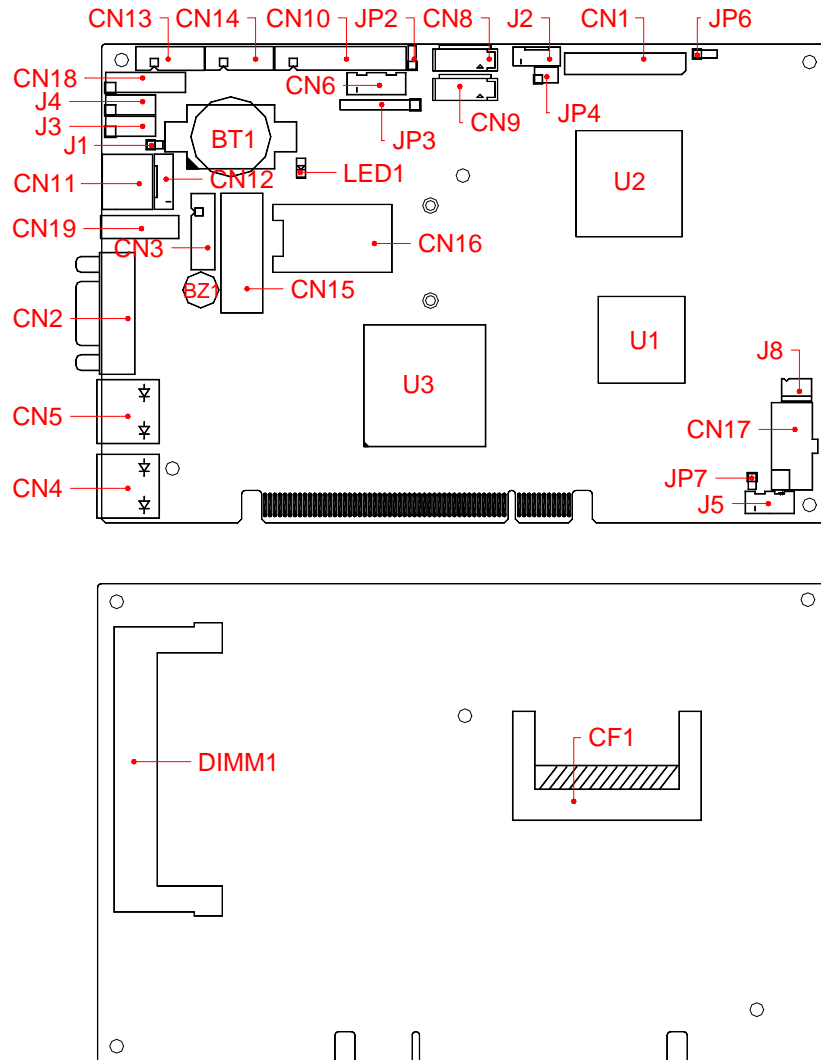


1. Brief

The FB2647 series is a Low power ATOM N270, all in one, and half-size 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 FB2647(x) all-in-one CPU board.
- 1 SATA hard disk drive interface cable.
- 1 dual serial ports interface cable with bracket.
- 1 parallel port interface cable with bracket. (Optional)
- 1 Y-type keyboard and mouse port adapter cable. (Optional)
- 1 USB and Audio adapter board with cables. (Optional)
- 1 compact disc includes this quick setup manual, user's manual, and software utilities.

4. Features

- * On-board low power Intel ATOM N270 CPU with 512KB L2 cache.
- * Compact size slot card with PICMG PCI expansion bus.
- * Intel 945GSE+ICH7 chipset with shared Video Ram architecture.
- * Supports 1 SoDIMM socket for up to 2GB DDR-533 RAM.
- * Provides HD Audio function and two 10/100/1000 base-TX ports with RJ-45 connector.
- * Onboard VGA port (945GSE embedded) supports CRT and LVDS interface.
- * 2 SATA and 1 CompactFlash socket for 3.3V CompactFlash and MicroDrive.
- * 5 USB, 1 parallel, 1 RS-232, 1 RS-232/422/485, and PS/2 KB/MS interface ports.
- * 4-line TTL I/O, On-board buzzer, LED indicator, and hardware monitoring functions.
- * Software programmable watchdog timer and Flash BIOS with easy upgrade utility.
- * Compact size, 185 mm x 122 mm.

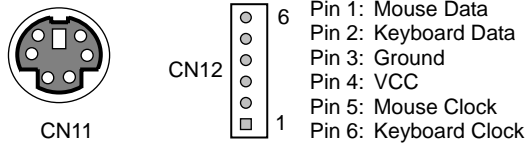
5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	LVDS Connector (40-pin DF13)	J1	Clear CMOS data Header (J1x2)
CN2	CRT Connector (15-pin D-sub)	J2	LCD Power Connector (5-pin JST)
CN3	HD Audio Connector (12-pin)	J3	USB #1 & #2 Connector (J2x5)
CN4	LAN Connector #1 (RJ45 w/LEDs)	J4	USB #3 & #4 Connector (J2x5)
CN5	LAN Connector #2 (RJ45 w/LEDs)	J5	ATX Signals Connector (4-pin JST)
CN6	TTL I/O Connector (5-pin JST)	J8	CPU Cooling Fan Connector (3-pin)
CN7	Reserved		
CN8	7-pin SATA Connector #1	JP2	SATA DOM Power Select (3-pin)
CN9	7-pin SATA Connector #2	JP3	Reserved
CN10	Parallel Port Connector (26-pin IDC)	JP4	COM2 Mode Select Jumper (J2x3)
CN11	PS/2 KB/MS Connector (6-pin mDIN)	JP5	Reversed
CN12	PS/2 KB/MS Connector (6-pin JST)	JP6	LVDS VDD Select (3-pin)
CN13	COM1 Connector (10-pin IDC)	JP7	Reserved
CN14	COM2 Connector (10-pin IDC)		
CN15	Reserved	BUS1	PCI BUS (32-bit)
CN16	Reserved	BZ1	On-board Buzzer
CN17	Mini ATX Connector (10-pin)	CF1	CompactFlash Socket
CN18	Integrated Signals Connector (J2x8)	DIMM1	SoDIMM Socket (200-pin)
CN19	USB #5 Connector	LED1	Power/Watchdog LED

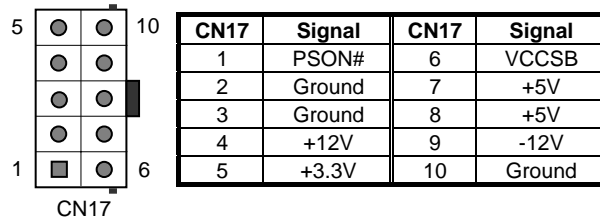
6. Connectors and Their Relative Jumpers

A. Keyboard and Mouse Connectors (CN11 and CN12)

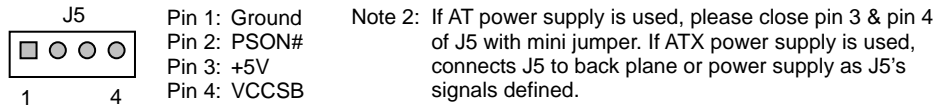
CN11 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN11 directly without extra adapter cable. Use the keyboard+mouse adapter cable (optional), you can connect keyboard and mouse simultaneously. CN12 is another way to attach keyboard and mouse with optional adapter cable.



B. Auxiliary Power Connector (CN17), ATX Power Signal Connector and Jumper (J5 and JP7)



Note 1: This power connector is ideal for standalone applications.



Note 2: If AT power supply is used, please close pin 3 & pin 4 of J5 with mini jumper. If ATX power supply is used, connects J5 to back plane or power supply as J5's signals defined.

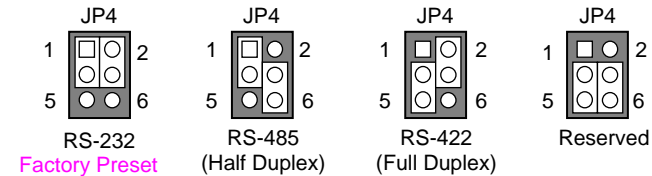
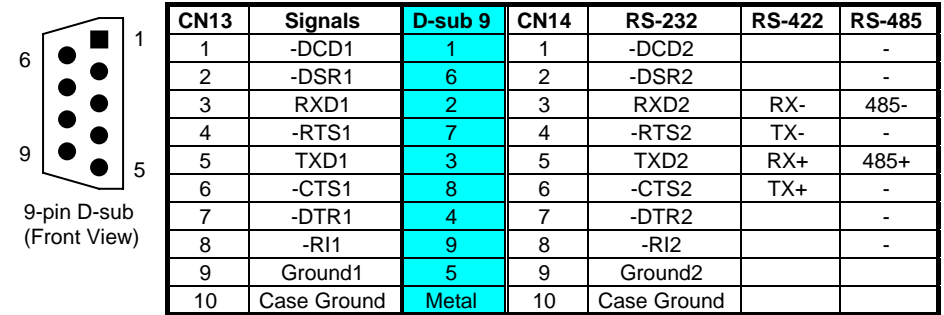
C. Parallel Port Connector (CN10: 26-pin 2.0mm IDC)

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

D. Serial Port Connectors & Selector (CN13, CN14, and JP4)

There are 2 connectors 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 connectors.

Functional connector, header, and jumper of serial ports	Serial Port 1	Serial Port 2
RS-232 Signals	CN13	CN14
RS-422 Signals	-	CN14
RS-485 Signals	-	CN14
Mode Select	-	JP4

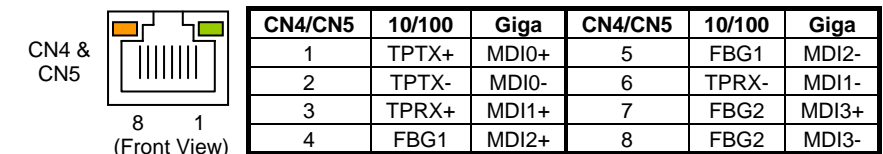


E. SoDIMM Socket (DIMM1)

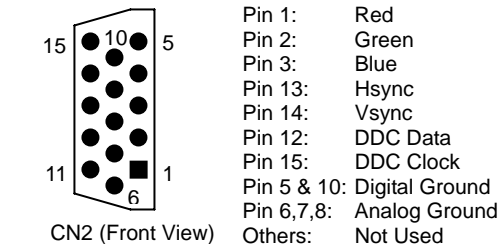
DIMM1 (Located on the solder side) supports 200-pin, 1.8V, and DDR2-533 DRAM modules with size of 512MB, 1GB, and 2GB.

F. LAN Connectors and LED Indicators (CN4 and CN5)

CN4 and CN5 are all RJ45 connectors 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)



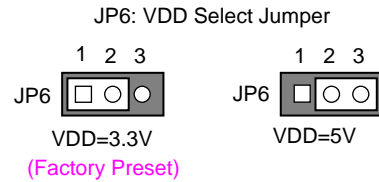
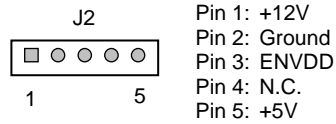
G. CRT Connector (CN2)



H. LCD Connectors and Select Jumper (CN1, J2, and JP6)

CN1 supports 36-bit LVDS LCD signals, and J2 is the power connector for inverter board.

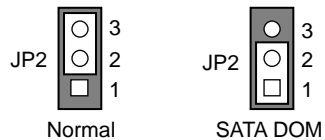
CN1	Signal	CN1	Signal
1	VDD	2	VDD
3	Ground	4	Ground
5	VDD	6	VDD
7	XDA0-	8	YDA0-
9	XDA0+	10	YDA0+
11	Ground	12	Ground
13	XDA1-	14	YDA1-
15	XDA1+	16	YDA1+
17	Ground	18	Ground
19	XDA2-	20	YDA2-
21	XDA2+	22	YDA2+
23	Ground	24	Ground
25	XCLK-	26	YCLK-
27	XCLK+	28	YCLK+
29	Ground	30	Ground
31	LDCC_CLK	32	LDDC_DAT
33	Ground	34	Ground
35	N. C.	36	N. C.
37	N. C.	38	N. C.
39	N. C.	40	N. C.



Note: If any trouble when connecting FB2647 with LCD panels, you could contact technical support division of FabiaTech Corporation.

I. SATA Connectors and Select Jumper (CN8, CN9, and JP2)

Use the included 7-pin SATA cables (1 is optional), you can attach up to two SATA disk drives. CN9 is designed for SATA DOM applications and JP2 is use to select power input for SATA DOM.



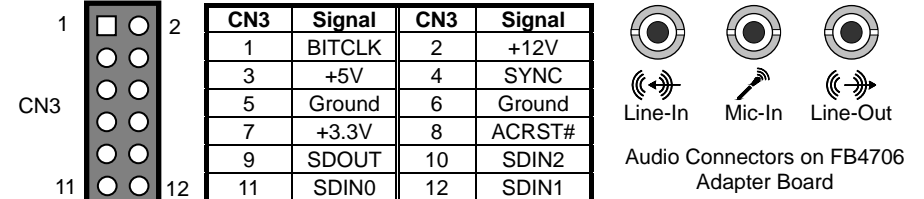
Factory Preset

J. TTL I/O Connector (CN6: 5-pin 2.54mm JST)

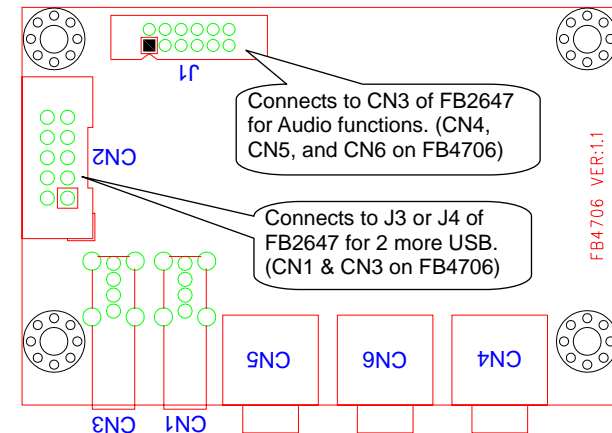
CN6	TTL Lines	Bit Location
1	Output Line 0	Please refer to User's Manual for details.
2	Output Line 1	
3	Input Line 0	
4	Input Line 1	
5	Ground	-

K. Audio and USB Connectors (CN3, J3, J4, and CN19)

CN3 is a 12-pin 2.0mm IDC connector with AMR signals for Audio I/O. Use the USB and Audio adapter kit (Including FB4706 and 2 cables, Optional) for your Audio applications. CN5, CN6, and CN4 connectors on FB4706 are 2-way Line-In, mono Microphone input, and 2-way Line-Out respectively. The following figure shows CN3 and Audio connectors on FB4706 board:

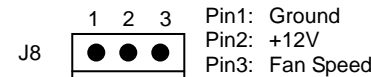


CN19 is a standard USB connector located on bracket. Use the USB cable connects J3 or J4 on FB2647 to CN2 of FB4706 for 2 more standard USB signals (CN1 and CN3 on FB4706). Please refer the following FB4706 Board Layout:



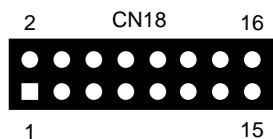
L. Cooling Fan Connector(J8)

J8 is 3-pin Molex connector which is used to drive CPU cooling fan if necessary.



M. CompactFlash Socket (CF1)

The CompactFlash socket CF1 (Located on the solder side) supports 3.3V CompactFlash and MicroDrive. Its default setting is secondary master port.

N. Multi-Function Header (CN18)

CN18	Signal	CN18	Signal
1	LAN #1 LED+	2	LAN #1 LED-
3	LAN #2 LED+	4	LAN #2 LED-
5	HDD LED+	6	HDD LED-
7	Power/WD LED+	8	Power/WD LED-
9	Speaker+	10	Speaker-
11	Temperature Sensor+	12	Temperature Sensor-
13	Reset+	14	Reset-
15	Power Button+	16	Power Button-

O. Clear CMOS Data (J1)

J1 is used to clear CMOS data by closing its 2-pin for about 3 seconds.

P. Main Extension BUS (BUS1: PICMG PCI)

FB2647x PCI BUS is designed to be able to plug into a 5V PCI system slot. The I/O device board will not work if you plug FB2647x into PCI I/O slots.

End of Document