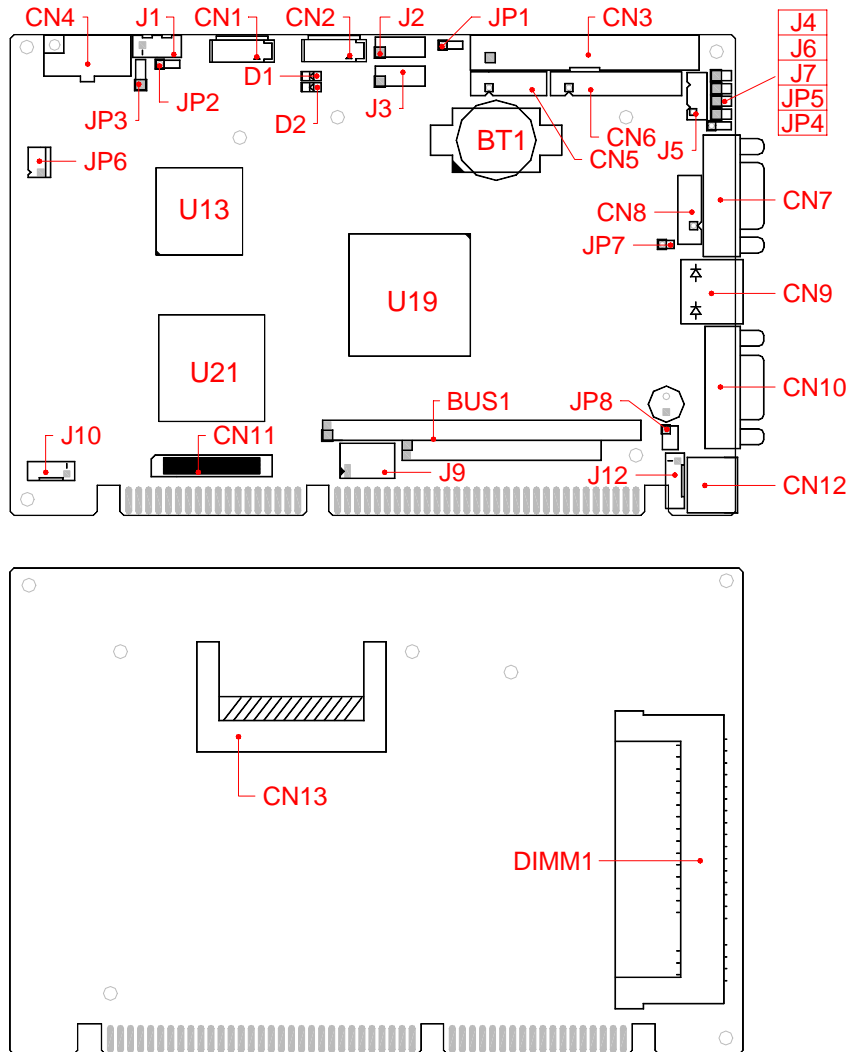


1. Brief

The FB2606 series is a Low power ATOM N270, all in one, and ISA 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

A. Standard Items

- 1 FB2606(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 keyboard and mouse port adapter cable.
- 1 Audio with USB Kit (USB and Audio adapter board with 2 cables).

4. Features

- * On-board low power Intel ATOM N270 CPU with 512KB L2 cache.
- * Compact size slot card with Intel 945GSE+ICH7 chipset and ISA+PC/104 expansion bus.
- * Supports 1 SoDIMM socket for up to 2GB DDR-533 RAM.
- * Provides HD Audio function and Onboard VGA port supports CRT and LVDS interface.
- * 2 SATA and 1 CompactFlash socket for 3.3V CompactFlash and MicroDrive.
- * 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, LED indicators, and hardware monitoring functions.
- * Software programmable watchdog timer and Flash BIOS with easy upgrade utility.
- * Compact size, 185 mm x 122 mm.

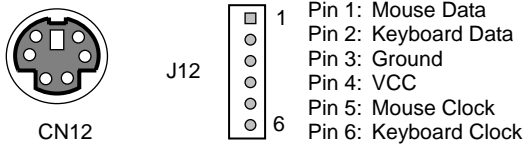
5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	7-pin SATA #1 Connector	J1	ATX Signals Connector (4-pin JST)
CN2	7-pin SATA #2 Connector	J2	USB #1 & #2 Connector (J2*5)
CN3	IDE Connector (40-pin IDC)	J3	USB #3 & #4 Connector (J2*5)
CN4	Mini ATX Power Connector (10-pin)	J4	ATX Power Bottom Header (J1*2)
CN5	HD Audio Connector (12-pin)	J5	TTL I/O Connector (2*5-pin JST)
CN6	Parallel Port Connector (26-pin IDC)	J6	Reset Header (J1*2)
CN7	COM1 Connector (9-pin D-sub)	J7	Clear CMOS Header (J1*2)
CN8	COM2 Connector (10-pin IDC)	J8	Reserved
CN9	LAN Connector (RJ45 w/LEDs)	J9	LPC Interface, J2*5
CN10	VGA Connector (15-pin D-sub)	J10	LCD Power Connector (5-pin JST)
CN11	LVDS Connector (40-pin DF13)	J11	Reserved
CN12	PS/2 KB/MS Connector (6-pin mDIN)	J12	PS/2 KB/MS Connector (6-pin JST)
CN13	CompactFlash Socket (50-pin)	JP1	CF Master/Slave Select (3-pin)
		JP2	SATA #1 Power Output Select (3-pin)
BUS1	PC/104 BUS (104-pin)	JP3	AT/ATX Mode Select #1 (3-pin)
BUS2/3	ISA BUS (Golden Finger)	JP4	Onboard SRAM Mapping Select (3-pin)
BZ1	On-board Buzzer	JP5	AT/ATX Mode Select #2 (2-pin)
D1	CF/IDE/SATA Access LED (Red)	JP6	Cooling Fan Connector (3-pin Molex)
D2	Power/Watchdog LED (Green)	JP7	RS422/485 Terminator Select (J1*2)
DIMM1	DDR2 So-Dimm Socket (200-pin)	JP8	COM2 Mode Select (J2*3)

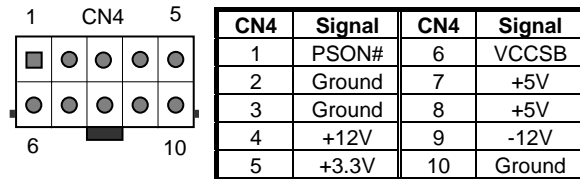
6. Connectors and Their Relative Jumpers

A. Keyboard and Mouse Connectors (CN12 and J12)

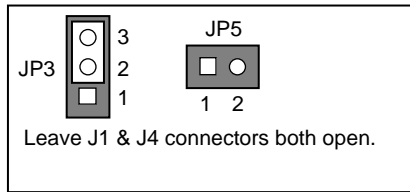
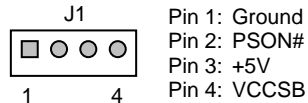
CN12 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN12 directly without extra adapter cable. Use the keyboard+mouse adapter cable (optional), you can connect keyboard and mouse simultaneously. J12 is another way to attach keyboard and mouse with optional adapter cable.



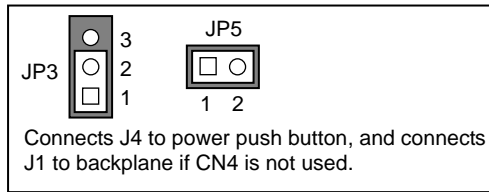
B. Auxiliary Power Connector (CN4), ATX Power Signal Connectors and AT/ATX Select Jumpers (J1, J4, JP3, and JP5)



Note 1: CN4 power connector is ideal for standalone applications.



AT Mode
Factory Preset

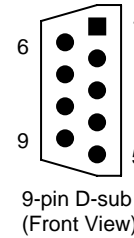


ATX Mode

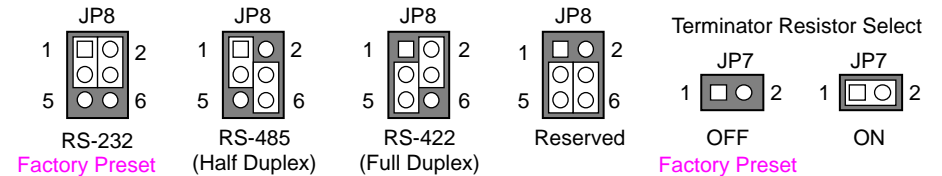
C. Serial Port Connectors & Selector (CN7, CN8, JP7, and JP8)

There are 2 connectors and 2 jumpers 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, and jumper of serial ports	COM1	COM2
RS-232 Signals	CN7	CN8
RS-422 Signals	-	CN8
RS-485 Signals	-	CN8
RS-422/485 Terminator Select	-	JP7
Mode Select	-	JP8



CN7	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		

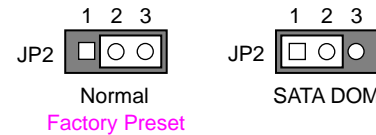


D. Parallel Port Connector (CN6: 26-pin 2.0mm IDC)

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

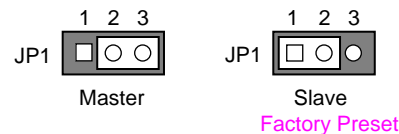
E. SATA Connectors and SATA DOM Select Jumper (CN1, CN2, and JP2)

Use the included 7-pin SATA cables (1 is optional), you can attach up to two SATA disk drives. CN1 is also designed for SATA DOM applications and JP2 is use to select power input for SATA DOM.

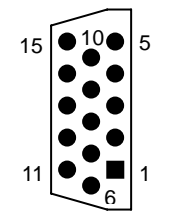


F. IDE Connector, CF Socket, and Master/Slave Select Jumper (CN3, CN13, and JP1)

Use 40-pin hard disk cable (optional), CN3 can attach up to two 3.5" hard disk drives if CN13 is not installed. The CompactFlash socket CN13 (located on the solder side) supports 3.3V CompactFlash and MicroDrives. JP1 is used to select master/slave device of CN13. Be sure to avoid the same master/slave setting with which connects to 40-pin IDE (CN3) connector, if CN3 and CN13 are used simultaneously.



G. VGA Connector (CN10)



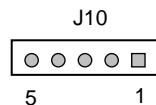
CN10 (Front View)

- 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

H. LCD Connectors and Select Jumper (CN11 and J10)

CN11	Signal	CN11	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.

CN11 supports 36-bit LVDS LCD signals, and J10 is the power connector for inverter board.

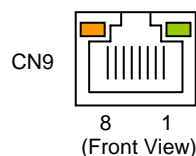


- Pin 1: +12V
- Pin 2: Ground
- Pin 3: ENVDD
- Pin 4: N.C.
- Pin 5: +5V

Note: If any trouble when connecting FB2606 with LCD panels, you could contact technical support division of FabiaTech Corporation.

I. LAN Connector and LED Indicators (CN9)

CN9 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)



CN9	10/100	Giga	CN9	10/100	Giga
1	TPTX+	MDI0+	5	FBG1	MDI2-
2	TPTX-	MDI0-	6	TPRX-	MDI1-
3	TPRX+	MDI1+	7	FBG2	MDI3+
4	FBG1	MDI2+	8	FBG2	MDI3-

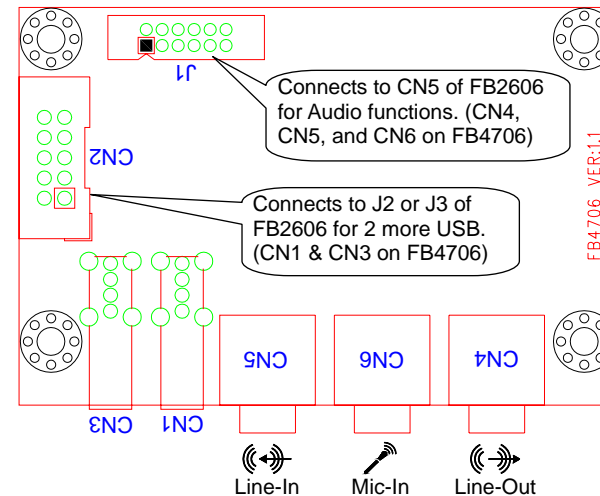
J. Audio and USB Connectors (CN5, J2, and J3)

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.

J2/J3	Signals	J2/J3	Signals
1	USBV0/USBV2	2	Case Ground
3	USB0-/USB2-	4	USBG1/USBG3
5	USB0+/USB2+	6	USB1+/USB3+
7	USB0-/USB2-	8	USB1-/USB3-
9	Case Ground	10	USBV1/USBV3

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 CN5 signals, function connectors of FB4706 board, and how to connect cables between FB2606 with FB4706.

CN5	Signal	CN5	Signal
1	BITCLK	2	+12V
3	+5V	4	SYNC
5	Ground	6	Ground
7	+3.3V	8	ACRST#
9	SDOUT	10	SDIN2
11	SDIN0	12	SDIN1



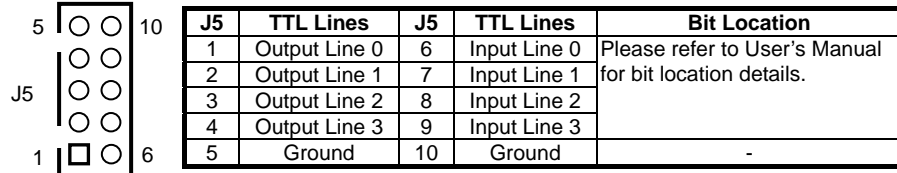
K. Reset Header (J6)

J6 is a 2-pin header for connecting to system reset bottom. Close these 2 pins to hardware reset FB2606 and restart system booting.

L. SoDIMM Socket (DIMM1)

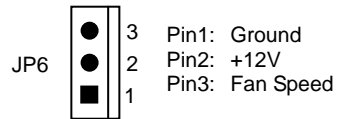
DIMM1 (Located on the solder side) supports 200-pin, 1.8V, and DDR2-533 DRAM modules with size of 512MB, 1GB, and 2GB.

M. TTL I/O Connector (J5: 2*5-pin 2.0mm JST)

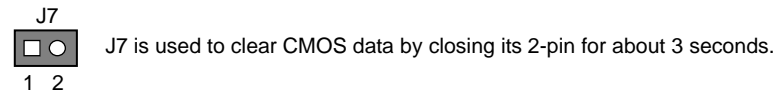


N. Cooling Fan Connector (JP6)

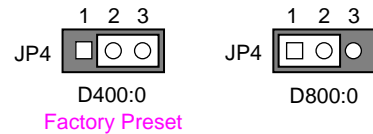
JP6 is 3-pin Molex connector which is used to drive CPU cooling fan if necessary.



O. Clear CMOS Data (J7)



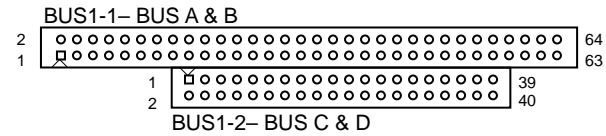
P. On-Board SARM (optional) Mapping Address Select Jumper (JP4, Reserved)



Q. LPC (Low Pin Count) Connector (J9)



R. 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	IODY	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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