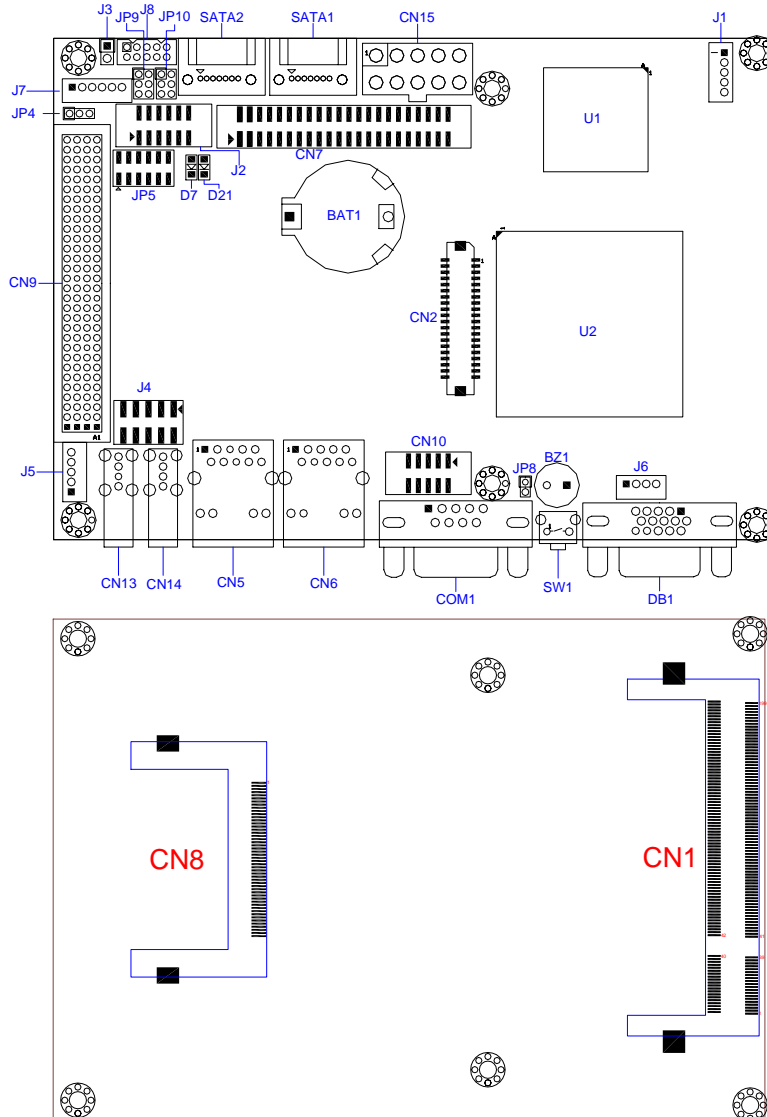


1. Brief

The FB2631x is an all-in-one, 3.5" disk size, low power VIA Eden CPU board. This user's quick setting provides the jumper settings, connector location, and their pin assignment.

2. Board Placement



3. Packing List

- 1 FB2631x all-in-one CPU board.
- 1 SATA adapter cable and 1 serial port adapter cable.
- 1 PS/2 keyboard and mouse port adapter cable.
- 1 audio adapter cable and 1 USB adapter cable with FB4706 adapter board.
- 1 S-Video (TV-Out) Adapter cable.
- 1 ATX to mini ATX power adapter cable.
- 1 compact disc includes software utility.
- 1 hard copies of this quick setup manual.

4. Features

- * On-board VIA EDEN 1GHz low power CPU with fanless operation.
- * VIA CX700 chipset with UMA architecture.
- * 1 So-DIMM socket for up to 1GB DDR2-533 SDRAM.
- * Two 10/100/1000 Base-TX Ethernet ports.
- * Provides CRT and LVDS LCD with 16MB to 128MB shared memory.
- * 1 RS-232, 1 RS-232/422/485, and 1 PS/2 compatible keyboard+mouse interface
- * 1 44-pin PATA(IDE), 2 SATA, and 1 Compact Flash socket.
- * 4 USB ports (2 with header only) and software programmable watchdog timer.
- * 4 TTL input lines and 4 TTL output lines.
- * HD audio function supports Line-In, Line-Out, and Mic-In.
- * Flash BIOS with easy upgrade utility.
- * Power requires +5V only, 3.2A maximum.
- * 3.5" disk size, 145 mm x 102 mm (5.7" x 4.0")

5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	DDR2 SoDIMM (200-pin)	J1	LCD Power Connector #1 (5-pin mJST)
CN2	LVDS Connector (40-pin DF13)	J2	AMR Connector (12-pin mIDC)
CN5	LAN #1 Connector (RJ45)	J3	Power Button Header (J1*2)
CN6	LAN #2 Connector (RJ45)	J4	USB #3 & #4 Connector (J2*5)
CN7	44-pin IDE Connector (44-pin mIDC)	J5	LCD Power Connector #2 (5-pin mJST)
CN8	Compact Flash Socket (50-pin)	J6	TV-Out Connector (4-pin mJST)
CN9	PC/104+ Expansion BUS (4*30-pin)	J7	KB/MS Connector (6-pin mJST)
CN10	COM2 Connector (10-pin mIDC)	J8	TTL I/O Header (2*5-pin mJST)
CN13	USB #1 Connector		
CN14	USB #2 Connector	JP4	CF Master/Slave Select Jumper (mJ1*3)
CN15	Power Connector (10-pin miniATX)	JP5	Multi-Function Select Jumper #1 (mJ2*6)
		JP8	AT/ATX Power Select Jumper (mJ1*2)
COM1	COM1 Connector (9-pin D-sub)	JP9	Multi-Function Select Jumper #2 (mJ2*3)
DB1	CRT Connector (15-pin D-sub)	JP10	3V/5V LCD Select Jumper #3 (mJ2*3)
SATA1	SATA #1 Connector	BZ1	On-Board Buzzer
SATA2	SATA #2 Connector	D7	Power/Watchdog LED (Green)
SW1	Reset Switch	D21	Hard Disk/CompactFlash Access LED (Red)

6. Connectors, Headers and Their Relative Jumpers

A. Reset Switch (SW1)

SW1 is a push bottom switch for system reset. Push and release this bottom will cause hardware reset of FB2631x and restart the system booting.

B. Power Connector (CN15) and Power Supply Type Select (J3, JP8 and JP5-1,2)

CN15	Signal	CN15	Signal
1	PSON#	6	5VSB
2	Ground	7	+5V
3	Ground	8	+5V
4	+12V	9	-12V
5	+3.3V	10	Ground

Connects J3 to a soft-start power button if ATX power supply is used.

ATX Power Supply
Factory Preset

AT (PS2) Power Supply

C. Keyboard and Mouse Connector (J7: 6-pin 2.0mm JST)

J7 provides PS/2 keyboard and mouse interface, use the included adapter cable to connect between J7 and standard PS/2 devices.

Pin 1: Mouse Data
Pin 2: Keyboard Data
Pin 3: Ground
Pin 4: +5V
Pin 5: Mouse Clock
Pin 6: Keyboard Clock

D. PATA (IDE), CompactFlash, and SATA Connectors (CN7, CN8, JP4, SATA1, and SATA2)

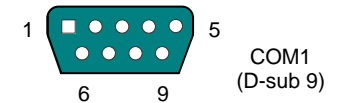
Use (optional) included IDE cable, CN7 (PATA) can attach up to two 2.5" IDE hard disks if CompactFlash socket is empty. The CompactFlash socket CN8 (on the solder side) supports 3.3V CompactFlash and MicroDrives. JP4 is used to select master/slave device of this socket. Be sure to avoid the same master/slave setting with which connects to 44-pin IDE (CN7) connector, if CN7 and CN8 (if existed) are used simultaneously.

Slave
Factory Preset

Master
Factory Preset

E. Serial Port Connectors (COM1 and CN10)

There are 2 connectors that served for on-board 2 serial ports. The following table and figure list the combination and pin definition of them:



Functional connector, header, and jumper of serial ports	Serial Port 1 (COM1)	Serial Port 2 (COM2)	Note: Please use BIOS setup program to select RS-232/422/485 mode of COM2. RS-232 is the default setting.
RS-232 Signals	COM1	CN10	
RS-422 Signals	-	CN10	
RS-485 Signals	-	CN10	

COM1	Signals	CN10	D-sub 9	RS-232	RS-422	RS-485
1	-DCD1	1	1	-DCD2		-
6	-DSR1	2	6	-DSR2		-
2	RXD1	3	2	RXD2	RX-	485-
7	-RTS1	4	7	-RTS2	TX-	-
3	TXD1	5	3	TXD2	RX+	485+
8	-CTS1	6	8	-CTS2	TX+	-
4	-DTR1	7	4	-DTR2		-
9	-RI1	8	9	-RI2		-
5	Ground1	9	5	Ground2		-
Metal	Case Ground	10	Metal	Case Ground		-

F. LAN Connectors, LEDs, and Wake-On-LAN (WOL) Select (CN5, CN6, and JP5-11,12)

CN5 and CN6 both are RJ45 connectors with 2 LEDs for LAN status. 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).

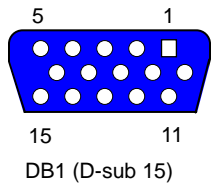
Open: WOL Disabled
Factory Preset

Close: WOL Enabled

G. TTL I/O Connector (J8)

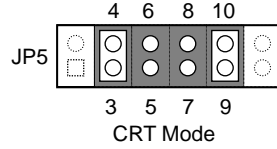
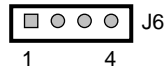
J8	Signal	Bit Location (I/O)	J8	Signal	Bit Location (I/O)
1	Output 0	Bit 4 of A22H	2	Output 1	Bit 4 of A22H
3	Output 2	Bit 6 of A22H	4	Output 3	Bit 7 of A22H
5	Input 0	Bit 0 of A22H	6	Input 1	Bit 1 of A22H
7	Input 2	Bit 2 of A22H	8	Input 3	Bit 3 of A22H
9	Ground	-	10	Ground	-

H. CRT Connector (DB1), TV-Out Connector (J6), and Select Jumpers (JP5-3,4,5,6,7,8,9,10)



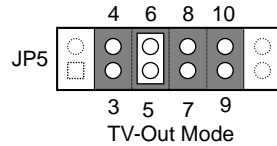
- Pin 1: Red
- Pin 2: Green
- Pin 3: Blue
- Pin 13: Hsync
- Pin 14: Vsync
- Pin 12: DDC Data
- Pin 15: DDC Clock
- Pin 5 & 10: Digital Ground
- Pin 6,7,8: Analog Ground
- Others: Not Used

- Pin 1: Ground
- Pin 2: C_SVHS
- Pin 3: TV_COMP
- Pin 4: Y_SVHS



CRT Mode

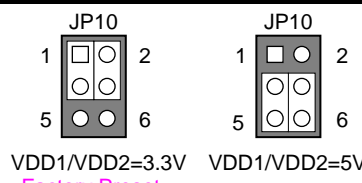
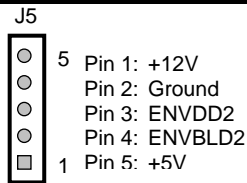
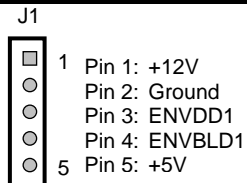
Factory Preset



TV-Out Mode

I. LCD Connectors (CN2, J1, and J5) and LCD Panel Voltage Select Jumper (JP10)

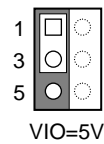
CN2	Signal	CN2	Signal	CN2	Signal	CN2	Signal
1	VDD1	21	Y2+	2	VDD1	22	Z2+
3	Ground	23	Ground	4	Ground	24	Ground
5	VDD2	25	YCK-	6	VDD2	26	ZCK-
7	Y0-	27	YCK+	8	Z0-	28	ZCK+
9	Y0+	29	Ground	10	Z0+	30	Ground
11	Ground	31	GPIO-Y	12	Ground	32	GPIO-Z
13	Y1-	33	Ground	14	Z1-	34	Ground
15	Y1+	35	Y3-	16	Z1+	36	Z3-
17	Ground	37	Y3+	18	Ground	38	Z3+
19	Y2-	39	DVP	20	Z2-	40	N. C.



Factory Preset

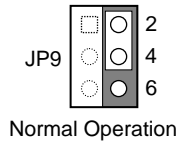
Note: If any question when connecting FB2631x with LCD panels, you could contact technical support division of FabiaTech Corporation.

J. VIO (on CN9) Select (JP9-1,3,5) and Clear CMOS RAM (JP9-2,4,6)

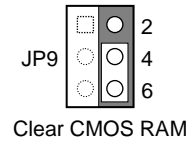


Factory Preset

VIO=3.3V



Factory Preset



Clear CMOS RAM
Close pin 4 & 6 for about 3 seconds

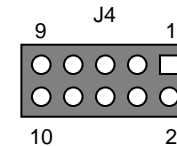
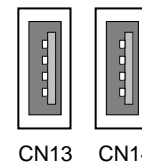
K. PCI/104 Connector (CN9: 30*4-pin) (Note *1: The original are reserved pins)

CN9	Signal	CN9	Signal	CN9	Signal	CN9	Signal
A1	Ground	B1	SERIRQ (*1)	C1	+5V	D1	AD0
A2	VIO	B2	AD2	C2	AD1	D2	+5V
A3	AD5	B3	Ground	C3	AD4	D3	AD3
A4	C/BE#0	B4	AD7	C4	Ground	D4	AD6
A5	Ground	B5	AD9	C5	AD8	D5	Ground
A6	AD11	B6	VIO	C6	AD10	D6	M66EN
A7	AD14	B7	AD13	C7	Ground	D7	AD12
A8	+3.3V	B8	C/BE#1	C8	AD15	D8	+3.3V
A9	SERR#	B9	Ground	C9	PCIREQ (*1)	D9	PAR
A10	Ground	B10	PERR#	C10	+3.3V	D10	PCIGNT (*1)
A11	STOP#	B11	+3.3V	C11	LOCK#	D11	Ground
A12	+3.3V	B12	TRDY#	C12	Ground	D12	DEVSEL#
A13	FRAME#	B13	Ground	C13	IRDY#	D13	+3.3V
A14	Ground	B14	AD16	C14	+3.3V	D14	C/BE#2
A15	AD18	B15	+3.3V	C15	AD17	D15	Ground
A16	AD21	B16	AD20	C16	Ground	D16	AD19
A17	+3.3V	B17	AD23	C17	AD22	D17	+3.3V
A18	IDSEL0	B18	Ground	C18	IDSEL1	D18	IDSEL2
A19	AD24	B19	C/BE#3	C19	VIO	D19	IDSEL3
A20	Ground	B20	AD26	C20	AD25	D20	Ground
A21	AD29	B21	+5V	C21	AD28	D21	AD27
A22	+5V	B22	AD30	C22	Ground	D22	AD31
A23	REQ#0	B23	Ground	C23	REQ#1	D23	VIO
A24	Ground	B24	REQ#2	C24	+5V	D24	GNT#0
A25	GNT#1	B25	VIO	C25	GNT#2	D25	Ground
A26	+5V	B26	PCICLK0	C26	Ground	D26	PCICLK1
A27	PCICLK2	B27	+5V	C27	PCICLK3	D27	Ground
A28	Ground	B28	INTD#	C28	+5V	D28	RESET#
A29	+12V	B29	INTA#	C29	INTB#	D29	INTC#
A30	-12V	B30	REQ#3	C30	GNT#3	D30	Ground

L. SoDIMM Socket (CN1)

CN1 supports 200-pin DDR2-400/533 RAM with size of 256MB, 512MB, and 1GB.

M. USB Connectors (CN13, CN14, and J4)



J4	Signal	J4	Signal
1	USBV3	2	Case Ground
3	USB3-	4	USBG4
5	USB3+	6	USB4+
7	USBG3	8	USB4-
9	Case Ground	10	USBV4

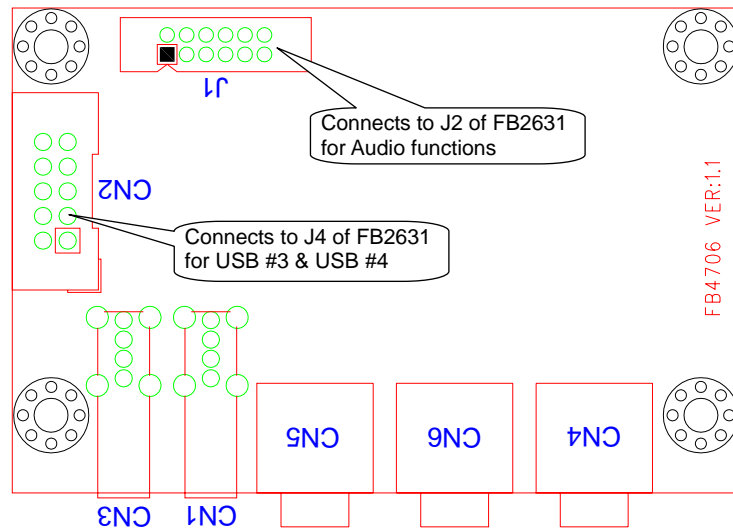
N. Audio (AMR) Connector (J2: 12-pin 2.0mm IDC) and Expand USB Connectors on FB4707 Adapter Board

J2 is a 12-pin 2.0mm IDC connector with AMR signals for Audio I/O. Use the included Audio cable and FB4706 adapter board 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 J2 and Audio connectors on FB4706 board:

J2	Signal	J2	Signal
1	BITCLK	2	+12V
3	+5V	4	SYNC
5	Ground	6	Ground
7	+3.3V	8	ACRST#
9	SDOUT	10	SPKR
11	SDINO	12	SDIN1

The diagram shows a 12-pin IDC connector labeled J2 with pins numbered 1 to 12. To the right, three circular audio connectors are shown: Line-In, Mic-In, and Line-Out. Below them is the text 'Audio Connectors on FB4706 Adapter Board'.

Use the included expand USB cable connects to CN2 of FB4706 for USB #3 and USB #4 signals (CN1 and CN3 on FB4706). Please refer the following FB4706 Board Layout:



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