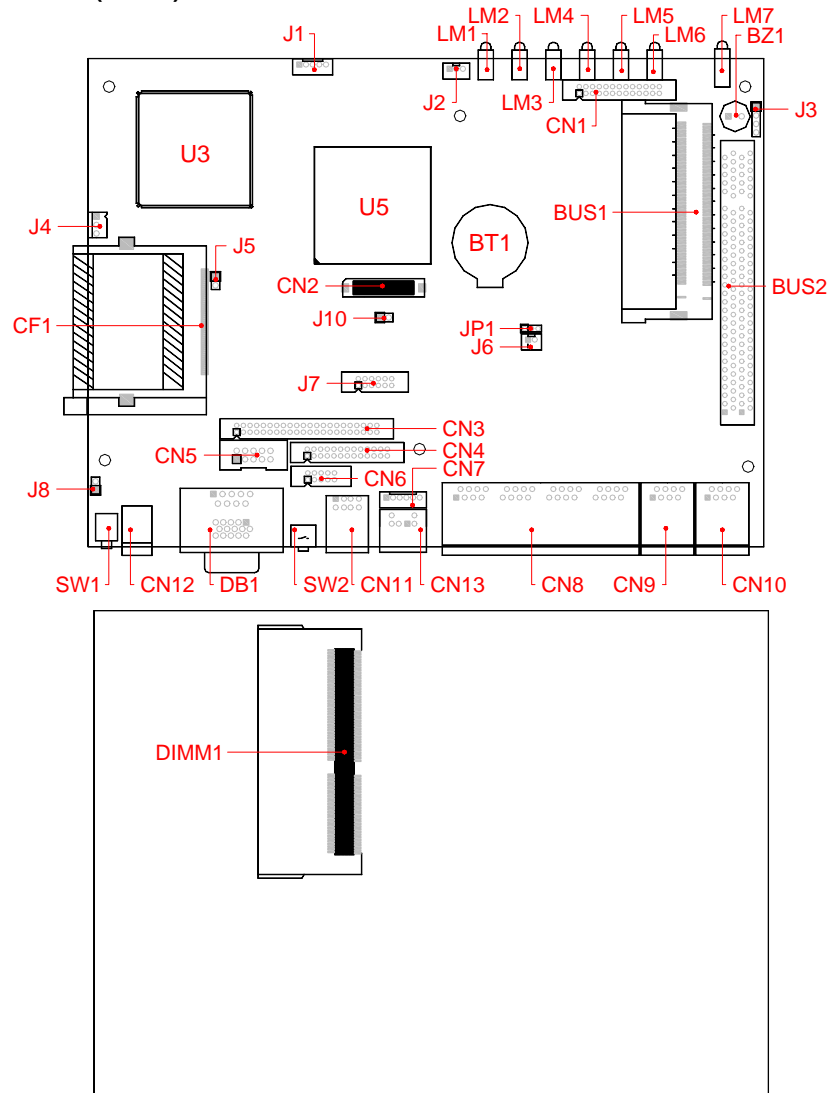


1. Brief

The FB2651 is a low-power VIA Eden all in one embedded CPU board. This user's quick setting provides the jumper and switch settings, connector location, and their pin assignment.

2. Dimensions (in mm)



3. Packing List

- 1 FB2651x embedded board.
- 1 44-pin 2.5" hard disk cable and 1 parallel port adapter cable.
- 1 Y-type (3-head) PS/2 keyboard plus mouse port adapter cable.
- 1 Audio adapter board FB4641 with cable. (optional)
- 1 AC-DC power adapter with power cable..
- 1 compact disc includes software utility.
- 1 hard copies of this quick reference.

4. Features

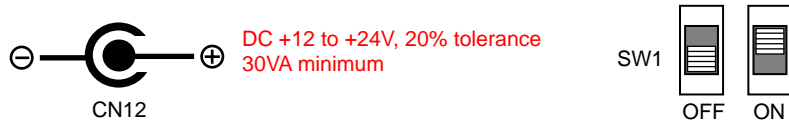
- * On-board low power VIA Eden CPU with heat sink only. (Fanless operation)
- * VIA VT8601T (option VT8606) + VT8231 chipset and 64KB or above L2 cache inside the CPUs.
- * Provides 1 SoDIMM-144 socket for up to 512MB PC-133 SDRAM. (On-board 256MB is optional)
- * Five 10/100 base-TX and one 10/100/1000 base-TX Ethernets with RJ-45 connectors.
- * Onboard VGA (8601T embedded) supports CRT and LVDS (VT8606 only) with up to 8MB (32MB for VT8606) shared memory.
- * 1 PCI IDE, 1 CompactFlash socket, 1 parallel port, and 1 RS-232 port.
- * 1 mini-PCI socket for I/O modules, especially for WLAN modules.
- * On-board buzzer, LED indicator, and PS/2 compatible keyboard and mouse interface.
- * 2 USB ports, 4 TTL I/O lines, and AC97 Audio function.
- * Provides 1 CPU cooling fan connector and hardware monitoring functions
- * Software programmable watchdog timer and Flash BIOS with easy upgrade utility.
- * 1 DC-In plug connector with power switch and 1 user defined push button switch.
- * Power Requirement: +12 ~ +24V DC with 20% tolerance, 25VA maximum.
- * 5.25" (CDROM) size embedded board with PCI expansion bus. Dimensions: 146 mm x 203 mm.

5. Connectors, Headers, and Jumpers List

Name	Function	Name	Function
CN1	Aux. LAN LEDs Connector (26-pin)	J1	TTL I/O Connector (5-pin)
CN2	LVDS Connector (30-pin)	J2	Internal RS-232 Connector (3-pin)
CN3	44-pin IDE Connector	J3	External Speaker Header (4-pin)
CN4	Parallel Port Connector (26-pin)	J4	Cooling Fan Connector (3-pin)
CN5	Aux. COM1 Connector (10-pin)	J5	Temperature Sensor Input Header (2-pin)
CN6	Aux. CRT Connector (10-pin)	J6	Reserved and always closed (2-pin)
CN7	Aux. KB/MS Connector (6-pin)	J7	AC97 Audio Connector (12-pin)
CN8	LAN1~LAN4 Connector (RJ45x4)	J8	External Switch Header (2-pin)
CN9	LAN5 Connector (RJ45)	J9	Aux. Power Connector (4-pin)
CN10	LAN6 Connector (RJ45)	J10	Push Button Reset Header (2-pin)
CN11	USB Connector	DB1	COM1 and CRT Connector (D-sub 9 & 15)
CN12	Power Jack Connector	DIMM1	DDR DIMM Socket (184-pin)
CN13	Keyboard/Mouse Connector	LM1~LM6	LAN1 to LAN6 LED
BUS1	Mini PCI Socket	LM7	Power/HDD/Status LED
BUS2	PCI Connector	SW1	Power Switch
CF1	CompactFlash Socket (Type-II)	SW2	User Defined Push Button Switch

6. Connectors and Their Relative Jumpers

A. Power Connector and Switch (CN12 and SW1)

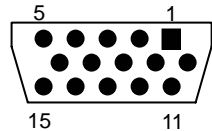


B. Keyboard and Mouse Connector (CN13: 6-pin mini-DIN, Female)



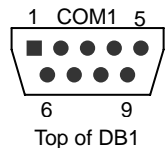
Standard PS/2 keyboard can be plugged into this connector without any adapter cable. If PS/2 keyboard and mouse would be used simultaneously, an Y-type (3-head) adapter cable is needed.

C. CRT Connector (Bottom of DB1: 15-pin Female D-sub)

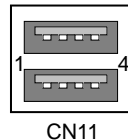


Pin 1: Red
Pin 2: Green
Pin 3: Blue
Pin 13: Hsync
Pin 14: Vsync
Pin 12: DDC Data
Pin 15: DDC Clock
Pin 5 & 10: Digital Ground
Pin 6,7,8: Analog Ground
Others: Not Used

D. Serial Port and USB Connectors (Top of DB1: 9-pin Male D-sub, J2, and CN11)



J2
1: TXD1
2: RXD1
3: Ground1
Internal RS-232 Connector
(J2 is an optional item)



USB #1
USB #2
CN11

E. IDE Hard Disk Connectors (CN3 - 44-pin 2.0mm IDC)

Use the included 44-pin hard disk cable, you can attach up to two 2.5" hard disk drives. If 3.5" HDD you would like to use, a 2.5" to 3.5" adapter board (FB4613, optional) is necessary.

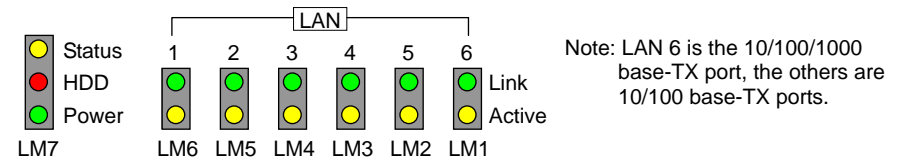
F. Parallel Port Connector (CN4: 26-pin 2.0mm IDC)

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

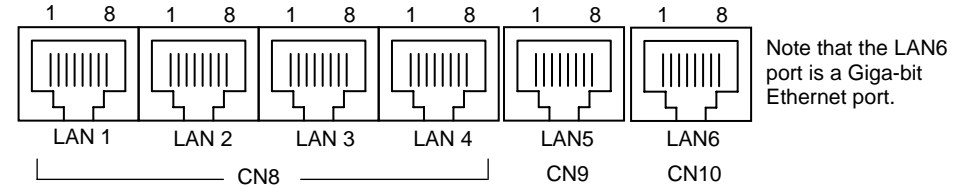
G. Reset Header (J10)

J10 is a 2-pin header for connecting to system reset bottom. Close these 2 pins will cause a hardware reset to FB2651x and then restart the system booting.

H. LED Indicators (LM1, LM2, LM3, LM4, LM5, LM6, and LM7)

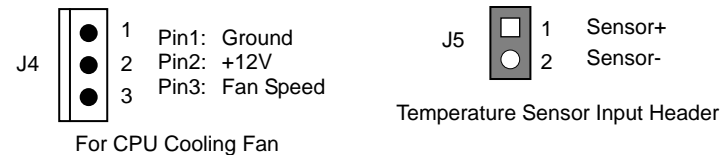


I. LAN Connectors (CN8, CN9, and CN10: RJ45)



J. Cooling Fan Connector (J4) and Temperature Sensor Input Header (J5)

J4 is 3-pin Molex connector which is reserved for driving CPU cooling fan. J5 is used to connect a temperature sensor for CPU or system temperature monitoring.



K. Audio Connector (J7: 12-pin 2.0mm IDC)

J7	Signal	J7	Signal
1	BITCLK	2	+12V
3	+5V	4	SYNC
5	Ground	6	Ground
7	+3.3V	8	ACRST#
9	SDOUT	10	SPKR
11	SDIN	12	SDIN

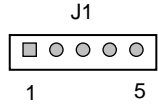
Note that J7 provides AC97 signals for Audio function. Use FB4641 (Audio Adapter Board, optional) and cable for your Audio applications.

L. SoDIMM Socket (DIMM1)

DIMM1 (on the solder side) supports 144-pin, 3.3V, and PC-133 SDRAM modules with size of 32MB, 64MB, 128MB, 256MB, and 512MB.

M. CompactFlash Socket (CF1)

The CompactFlash socket CF1 supports 3.3V Type-I and Type-II CompactFlash and MicroDrives.

N. TTL I/O Connector (J1: 5-pin 2.0mm JST)


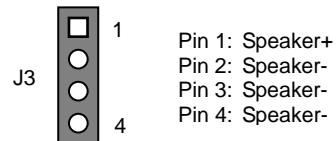
J1	TTL Lines	Bit Location
1	Output Line 0	Bit 0 of 84Fh
2	Output Line 1	Bit 1 of 84Fh
3	Input Line 0	Bit 0 of 84Ah
4	Input Line 1	Bit 1 of 84Ah
5	Ground	-

O. LVDS Connector (CN2, optional for VT8606 is used)

CN2	Signal	CN2	Signal
1	Ground	2	Y0+
3	Y0-	4	Ground
5	Y1+	6	Y1-
7	Ground	8	Y2+
9	Y2-	10	Ground
11	YCK+	12	YCK-
13	Ground	14	Z0+
15	Z0-	16	Ground
17	Z1+	18	Z1-
19	Ground	20	Z2+
21	Z2-	22	Ground
23	ZCK+	24	ZCK-
25	Ground	26	Ground
27	+3.3V	28	+3.3V
29	+5V	30	+5V

P. On-Board Buzzer and External Speaker Header (BZ1 and J3)

BZ1 is the on-board buzzer and you can use one 2-pin or 4-pin cable connects between an extra 8 ohms speaker with J3 header.

**Q. Major Extension BUS (BUS1)**

BUS1 is mini-PCI socket for all mini-PCI I/O modules, especially for WLAN modules.

R. Minor Extension BUS (BUS2)

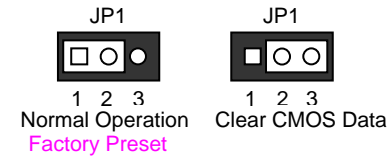
BUS2 is designed to able to plug-in a PCI device card. The factory presetting is suitable for 5V slot cards and 3.3V slot card is optional.

S. User Defined Push Button Switch (SW2)

This SW2 is reserved for user definition. User can read its status from input line of on-board GPIOs.

T. Clear CMOS RAM Jumper (JP1)

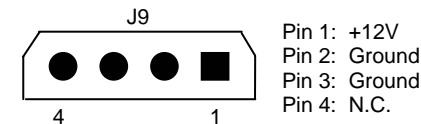
Close pin 2 and 3 on JP1 for about 1 second will cause CMOS data losing and you have to reload the default BIOS settings and your optimal BIOS settings.

**U. Reserved Header and Connectors (CN1, CN5, CN6, CN7, J8, and J9)**

These connectors are all optional and reserved for auxiliary connection if necessary. Their function are listed as below:

J9: CD-ROM type 4-pin power connector.

J8: Power switch header if J9 is used.



(Note: +5V is not necessary)

CN1: Aux. LAN LEDs Connector (26-pin 2.0mm IDC)

CN1	Signal	CN1	Signal
1	+3.3V	2	Ground
3	Link LED1+	4	Link LED1-
5	TX LED1+	6	TX LED1-
7	Link LED2+	8	Link LED2-
9	TX LED2+	10	TX LED2-
11	Link LED3+	12	Link LED3-
13	TX LED3+	14	TX LED3-
15	Link LED4+	16	Link LED4-
17	TX LED4+	18	TX LED4-
19	Link LED5+	20	Link LED5-
21	TX LED5+	22	TX LED5-
23	Link LED6+	24	Link LED6-
25	TX LED6+	26	TX LED6-

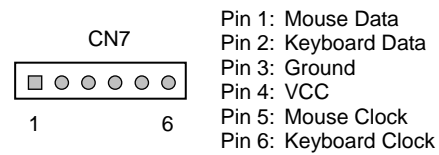
CN5: Aux. COM1 Connector (10-pin 2.54mm IDC)

CN5	Signal	CN5	Signal
1	-DCD1	2	-DSR1
3	RXD1	4	-RTS1
5	TXD1	6	-CTS1
7	-DTR1	8	-RI1
9	Ground1	10	Case Ground

CN6: Aux. CRT Connector (10-pin 2.0mm IDC)

CN6	Signal	CN6	Signal
1	Red	2	Ground
3	Green	4	Ground
5	Blue	6	Ground
7	H. Sync	8	DDC Data
9	V. Sync	10	DDC Clock

CN7: Aux. Keyboard/Mouse Connector (6-pin 2.0mm JST)



End of Document