

ETX-DB-ATX
ETX MODULE BASEBOARD
PCB V1.2

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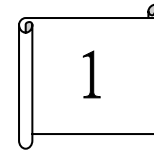
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Introduction

ETX-DB-ATX is designed for ETX module computer board applications

The ETX-DB-ATX provides four 100 pins FX8 series connector to connect ETX module computer board. It also provides all kind of input/output port, included two parallel ports, two serial ports RS-232, four USB ports, three audio phone jacks, one VGA CRT connector, one 48 bits two channels LVDS connector, two PCI interface slots, one ISA interface slots, two channel IED interface connectors, one floppy interface connector, one TV-out port, one IR port, and a PS/2 keyboard/mouse interface.

1.1 Specifications

***Display interface:**

Support CRT and LVDS LCD displays simultaneously

***Audio interface:**

Connector: Speaker, Mic-in, Line-in.

***IDE interface:** supports two PCI Enhanced IDE hard drives

***FDD interface:** support up to two floppy disk drives, 5.25" (360KB and 1.2MB) and/or 3.5" (720KB, 1.44MB, and 2.88MB) (Multi function with Parallel port)

***Serial ports:** Two RS232 ports

***Parallel port:** One Parallel port can supports SPP/EPP/ECP mode (Multi function with Floppy interface)

***PS/2 Mouse/Keyboard interface:** easy connection to a keyboard or PS/2 mouse

***USB interface:** four USB ports.

***PCI interface:** Two PCI slots.

***ISA interface:** One ISA slots.

***10/100Mbps Ethernet Controller:** Intel 82551QM or Realtek RTL8100 IEEE802.u 100 BASE-TX standard Dual Auto-sensing interface to 10Mbps or 100Mbps networks. On board RJ45 connectors provide for easy connection.

***Power connector:** standard ATX power connector

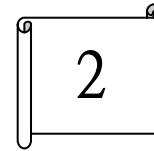
***Dimension:** 304mm x 190mm

1.2 What You Have

Before you begin installing the product, please check the following materials are included in the package:

- 1 ETX-DB-ATX ETX module baseboard
- 1 3.5" IDE flat cable (ATA-66, 44 pin 2.54mm pitch, 457mm)(32200-000052)
- 1 floppy cable (for 3.5" FDD only) (32200-000017)
- 1 serial port cable (for RS232) (32200-0000??)

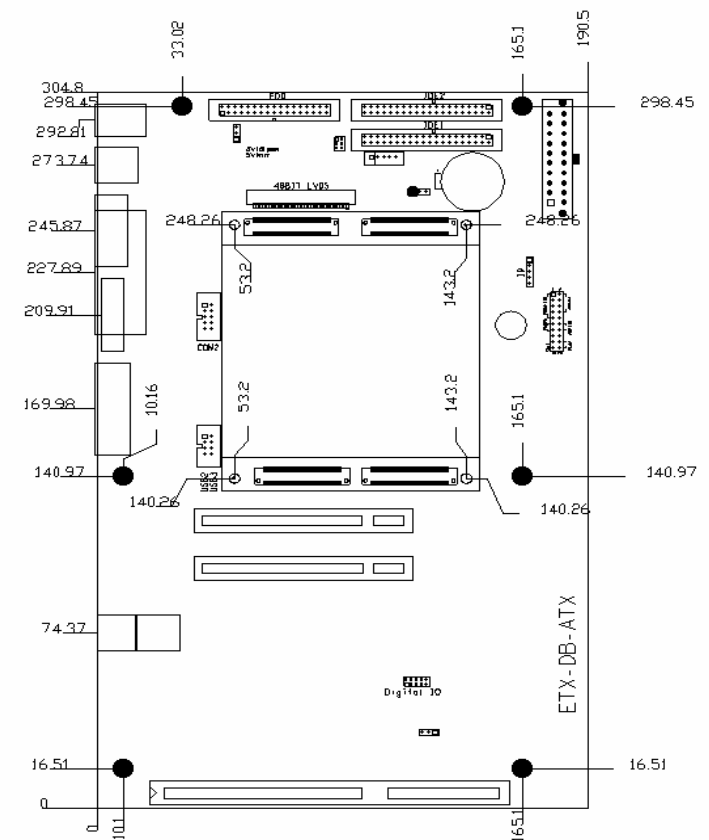
If any of these items are missing or damaged, contact your distributor or sales representative immediately.

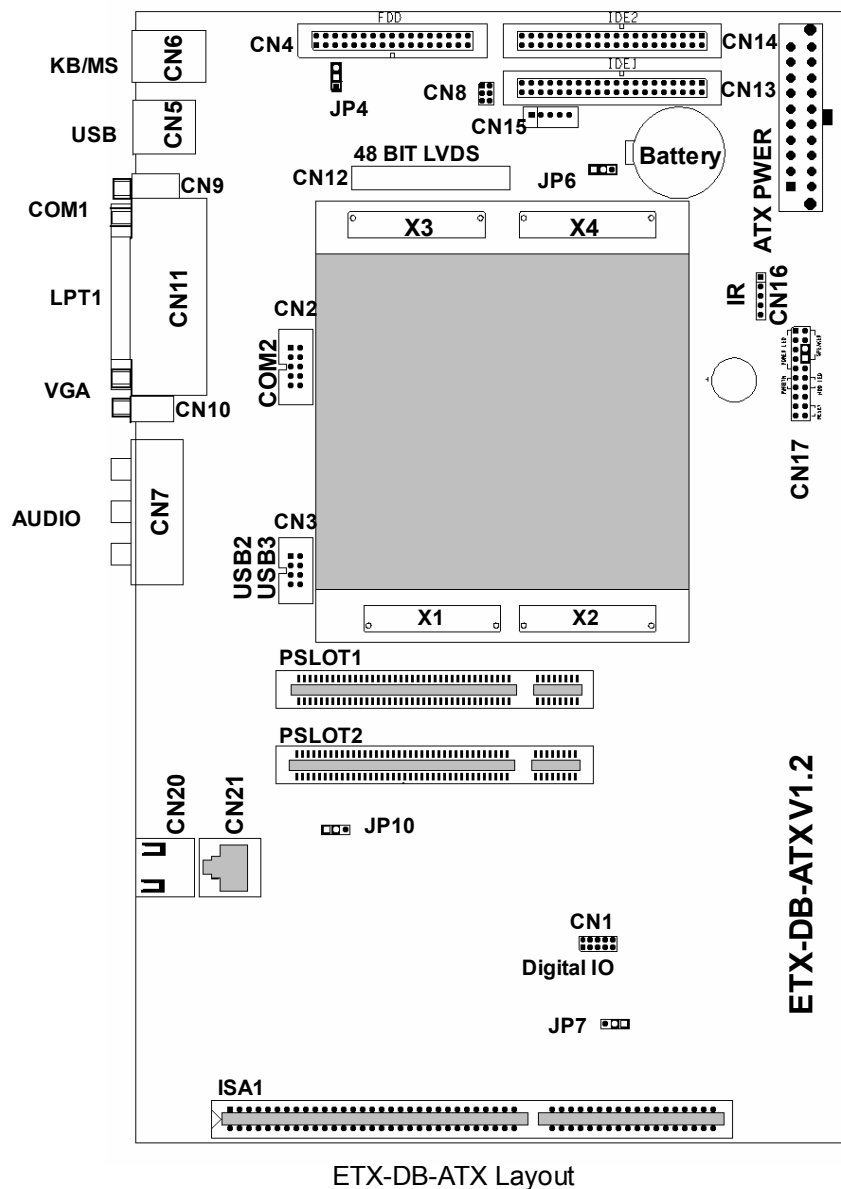


Installation

This chapter gives instructions about how to set up the ETX-DB-ATX hardware, including directions of connecting peripherals. Before installation, please pay attention to the unpacking precautions on the following page for safety.

2.1 ETX-DB-ATX Board Layout





ETX-DB-ATX Layout

2.2 Unpacking Precautions

Some components of ETX-DB-ATX are very sensitive to static electric charges and can be damaged by a sudden rush of power. To protect it from unintended damage, be sure to note these precautions:

Ground yourself to remove any static charge before touching the ETX-DB-ATX. You can do it by using a grounded wrist strap at all times or by frequently touching any conducting materials that is connected to the ground.

Handle your ETX-DB-ATX by its edges. Don't touch IC chips, leads or circuitry if not necessary.

Do not plug any connector or jumper while the power is on.

2.3 LCD Vcc Voltage Selector

The LCD interface connector CN1, CN2, CN6 can provide 5V or 3.3V power supply by selecting the JP4 to meet the different LCD requirement.

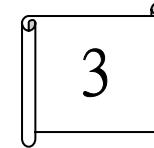
JP4	DESCRIPTION
1-2	5V
2-3	3.3V

2.4 Clear CMOS Setup

If you need to clear the CMOS Setup (for example, forgot the password, you should clear the setup and then set the password again.), you should close the JP6 about 3 seconds, then open it again. Set back to normal operation mode by open JP6.

- JP6: Clear CMOS Setup (Reserve Function)

JP6	DESCRIPTION
1-2	Normal Operation
2-3	Clear CMOS Setup



Connection

This chapter describes how to connect peripherals, switches and indicators to the ETX-DB-ATX board.

2.5 WatchDog Timeout Active Selector

Reading I/O port 443H enables the WatchDog Timer. It should be triggered before the time-out period ends, otherwise it will assume the program operation is abnormal and will issue a reset signal or an interrupt signal. The Watch-Dog Timer is disabled by reading port 043/843H. detail information on WatchDog Timer Refer to Appendix A

- JP7: WatchDog Active Select

JP7	DESCRIPTION
1-2	RESET
2-3	IRQ11

2.6 Internal Buzzer Enable/Disable

- CN17 Pin 6 & Pin 8: Internal Buzzer Enable/Disable

CN17 Pin 6 & Pin 8	DESCRIPTION
On(short)	Enable
Off(open)	Disable

2.7 Ethernet Controller Setting

The On Board Ethernet Controller can be enable or disable by selecting the JP10.

JP10	DESCRIPTION
1-2	Enable
2-3	Disable

3.1 ETX Connector X1

X1: PCI-Bus, USB, and Audio

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	PCICLK3	4	PCICLK4
5	GND	6	GND
7	PCICLK1	8	PCICLK2
9	REQ3#	10	GNT3#
11	GNT2#	12	3.3V
13	REQ2#	14	GNT1#
15	REQ1#	16	3.3V
17	GNT0#	18	RESERVED
19	5V	20	5V
21	SERIRQ	22	REQ0#
23	AD0	24	3.3V
25	AD1	26	AD2
27	AD4	28	AD3
29	AD6	30	AD5
31	CBE0#	32	AD7
33	AD8	34	AD9
35	GND	36	GND
37	AD10	38	LINE-IN-L
39	AD11	40	MIC
41	AD12	42	LINE-IN-R
43	AD13	44	ASVCC
45	AD14	46	LINE-OUT-L
47	AD15	48	ASGND
49	CBE1#	50	LINE-OUT-R

PIN	SIGNAL	PIN	SIGNAL
51	5V	52	5V
53	PAR	54	SERR#
55	PERR#	56	RESERVED
57	PME#	58	USB2#
59	LOCK#	60	DEVSEL#
61	TRDY#	62	USB3#
63	IRDY#	64	STOP#
65	FRAME#	66	USB2
67	GND	68	GND
69	AD16	70	CBE2#
71	AD17	72	USB3
73	AD19	74	AD18
75	AD20	76	USB0#
77	AD22	78	AD21
79	AD23	80	USB1#
81	AD24	82	CBE3#
83	5V	84	5V
85	AD25	86	AD26
87	AD28	88	USB0
89	AD27	90	AD29
91	AD30	92	USB1
93	PCIRST#	94	AD31
95	INTC#	96	INTD#
97	INTA#	98	INTB#
99	GND	100	GND

3.2 ETX Connector X2

X2: ISA Bus

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	SD!4	4	SD15
5	SD13	6	MASTER#
7	SD12	8	DRQ7
9	SD11	10	DACK7#
11	SD10	12	DRQ6
13	SD9	14	DACK6#
15	SD8	16	DRQ5
17	MEMW#	18	DACK5#
19	MEMR#	20	DRQ0
21	LA17	22	DACK0#
23	LA18	24	IRQ14
25	LA19	26	IIQR15
27	LA20	28	IRQ12
29	LA21	30	IRQ11
31	LA22	32	IRQ10
33	LA23	34	IOCS16#
35	GND	36	GND
37	SBHE#	38	MEMCS16#
39	SA0	40	OSC
41	SA1	42	BALE
43	SA1	44	TC
45	SA3	46	DACK2#
47	SA4	48	IRQ3
49	SA5	50	IRQ4

PIN	SIGNAL	PIN	SIGNAL
51	5V	52	5V
53	SA6	54	IRQ5
55	SA7	56	IRQ6
57	SA8	58	IRQ7
59	SA9	60	SYSClk
61	SA10	62	REFSH#
63	SA11	64	REQ1
65	SA12	66	DACK1#
67	GND	68	GND
69	SA13	70	DRQ3
71	SA14	72	DACK3#
73	SA15	74	IOR#
75	SA16	76	IOW#
77	SA18	78	SA17
79	SA19	80	SMEMR#
81	IOCHRDY	82	AEN
83	5V	84	5V
85	SD0	86	SMEMW#
87	SD2	88	SD1
89	SD3	90	ZOWS#
91	DRQ2	92	SD4
93	SD5	94	IRQ9
95	SD6	96	SD7
97	IOCHK#	98	RSTDRV
99	GND	100	GND

3.3 ETX Connector X3

X3: VGA, LCD, Video, COM1, COM2, LPT/Floppy, Irda, Mouse, and Keyboard

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	R	4	B
5	CRTHSYN	6	G
7	CRTVSYN	8	DDCSCL
9	N.C.	10	DDCSDA
11	TXCLK1-	12	TXOUT13-
13	TXCLK1+	14	TXOUT13+
15	GND	16	GND
17	TXOUT11+	18	TXOUT12+
19	TXOUT11-	20	TXOUT12-
21	GND	22	GND
23	TXOUT03-	24	TXOUT10+
25	TXOUT03+	26	TXOUT10-
27	GND	28	GND
29	TXOUT02-	30	TXCLK0+
31	TXOUT02+	32	TXCLK0-
33	GND	34	GND
35	TXOUT00+	36	TXOUT01+
37	TXOUT00-	38	TXOUT01-
39	5V	40	5V
41	N.C.	42	N.C.
43	N.C.	44	FPENABKL
45	N.C.	46	FPENAVDD
47	TV-CVBS	48	TV-Y
49	TV-SYNC	50	TV-C

PIN	SIGNAL	PIN	SIGNAL
51	LPT/FLPY#	52	RESERVED
53	5V	54	GND
55	STB#	56	AFD#
57	RESERVED	58	PD7
59	IRR#	60	ERR#
61	IRTX	62	PD6
63	RXD2	64	INIT#
65	GND	66	GND
67	RTS2#	68	PD5
69	DTR2#	70	SLIN#
71	DCD2#	72	PD4
73	DSR2#	74	PD3
75	CTS2#	76	PD2
77	TXD2	78	PD1
79	RI2#	80	PD0
81	5V	82	5V
83	RXD1	84	ACK#
85	RTS1#	86	BUSY#
87	DTR1#	88	PE
89	DCD1#	90	SLCT
91	DSR1#	92	MSCLK
93	CTS1#	94	MSDATA
95	TXD1	96	KBCLK
97	RI1#	98	KBDATA
99	GND	100	GND

3.4 ETX Connector X4

X4: IDE1, IDE2, and Miscellaneous

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	5VSB	4	PWGIN
5	PS_ON	6	SPEAKER
7	PWRBTN#	8	VBAT
9	KBINH	10	N.C.
11	WDTACT#	12	N.C.
13	ROMKBCS#	14	N.C.
15	ROMCS#	16	I2CLK
17	5V	18	5V
19	OVRCUR	20	DIOCS#
21	EXTSM#	22	I2CDATA
23	SMBCLK	24	SMBDATA
25	SIDE_CS3#	26	N.C.
27	SIDE_CS1#	28	DASP_S
29	SIDE_A2	30	PIDE_CS3#
31	SIDE_A0	32	PIDE_CS1#
33	GND	34	GND
35	PDIAG_S	36	PIDE_A2
37	SIDE_A1	38	PIDE_A0
39	SIDE_IRQ#	40	PIDE_A1
41	N.C.	42	N.C.
43	SIDE_DACK#	44	PIDE_IRQ#
45	SIDE_IORDY	46	PIDE_DACK#
47	SIDE_IOR#	48	PIDE_IORDY
49	5V	50	5V

PIN	SIGNAL	PIN	SIGNAL
51	SIED_IOW#	52	PIDE_IOR#
53	SIDE_DRQ	54	PIDE_IOW#
55	SIDE_D15	56	PIDE_DRQ
57	SIDE_D0	58	PIDE_D15
59	SIDE_D14	60	PIDE_D0
61	SIDE_D1	62	PIDE_D14
63	SIDE_D13	64	PIDE_D1
65	GND	66	GND
67	SIDE_D2	68	PIDE_D13
69	SIDE_D12	70	PIDE_D2
71	SIDE_D3	72	PIDE_D12
73	SIDE_D11	74	PIDE_D3
75	SIDE_D4	76	PIDE_D11
77	SIDE_D10	78	PIDE_D4
79	SIDE_D5	80	PIDE_D10
81	5V	82	5V
83	SIDE_D9	84	PIDE_D5
85	SIDE_D6	86	PIDE_D9
87	SIDE_D8	88	PIDE_D6
89	RING#	90	N.C.
91	N.C.	92	PIDE_D8
93	N.C.	94	SIDE_D7
95	N.C.	96	PIDE_D7
97	N.C.	98	IDERST#
99	GND	100	GND

3.5 Floppy Disk Drive Connector

ETX-DB-ATX board is equipped with a 34-pin daisy-chain driver connector cable.

CN4: FDC CONNECTOR

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GROUND	2	REDUCE WRITE
3	GROUND	4	N/C
5	GROUND	6	N/C
7	GROUND	8	INDEX#
9	GROUND	10	MOTOR ENABLE A#
11	GROUND	12	DRIVE SELECT B#
13	GROUND	14	DRIVE SELECT A#
15	GROUND	16	MOTOR ENABLE B#
17	GROUND	18	DIRECTION#
19	GROUND	20	STEP#
21	GROUND	22	WRITE DATA#
23	GROUND	24	WRITE GATE#
25	GROUND	26	TRACK 0#
27	GROUND	28	WRITE PROTECT#
29	GROUND	30	READ DATA#
31	GROUND	32	SIDE 1 SELECT#
33	GROUND	34	DISK CHANGE#

3.6 PCI E-IDE Disk Drive Connector

For IDE HDD connection, The ETX-DB-ATX was designed with two 2.54mm standard IDE connector (CN13, CN14)

CN13: 40-pin Primary IDE Interface Connector

CN14: 40-pin Secondly IDE Interface Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RESET#	2	GROUND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GROUND	20	N/C
21	IDE DRQ	22	GROUND
23	IOW#	24	GROUND
25	IOR#	26	GROUND
27	IDE CHRDY	28	GROUND
29	IDE DACK	30	GROUND-DEFAULT
31	INTERRUPT	32	N/C
33	SA1	34	N/C
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GROUND

3.7 Parallel Port

This port is usually connected to a printer, The ETX-DB-ATX includes an on-board parallel port (CN11), accessed through a 25 pin D-sub connector.

- CN11: Parallel Port1 D-sub Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	STROBE#	14	AUTO FORM FEED #
2	DATA 0	15	ERROR#
3	DATA 1	16	INITIALIZE
4	DATA 2	17	PRINTER SELECT LN#
5	DATA 3	18	GROUND
6	DATA 4	19	GROUND
7	DATA 5	20	GROUND
8	DATA 6	21	GROUND
9	DATA 7	22	GROUND
10	ACKNOWLEDGE	23	GROUND
11	BUSY	24	GROUND
12	PAPER EMPTY	25	GROUND
13	PRINTER SELECT		

3.8 Serial Ports

The ETX-DB-ATX offers two serial ports. These ports let you connect to serial devices or a communication network. One 9-pin D-SUB connector, one 10-pin header, The detailed pin

assignment of the connectors are specified as following tables:

- CN9: Serial Port1 Connector (9-pin D-sub)

PIN NO.	DESCRIPTION
1	DATA CARRIER DETECT (DCD)
2	RECEIVE DATA (RXD)
3	TRANSMIT DATA (TXD)
4	DATA TERMINAL READY (DTR)
5	GROUND (GND)
6	DATA SET READY (DSR)
7	REQUEST TO SEND (RTS)
8	CLEAR TO SEND (CTS)
9	RING INDICATOR (RI)

- CN2: Serial Port2 Connector (10-pin Header/W Housing)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	DCD	2	DSR
3	RX	4	RTS
5	TX	6	CTS
7	DTR	8	RI
9	GND	10	N/C

3.9 USB Port Connector

The ETX-DB-ATX provides four USB interfaces, which gives the completed plug and play, for up to 127 external devices.

- CN5: External USB Connector

UP PORT		DOWN PORT	
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	1	VCC
2	USBD1-	2	USBD0-

3	USBD1+	3	USBD0+
4	GND	4	GND

- CN3: Internal USB Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	5	GND
2	USBD2-	6	USBD3+
3	USBD2+	7	USBD3-
4	GND	8	VCC

3.10 IrDA Infrared Interface Port

- CN16: IrDA connector

PIN NO.	DESCRIPTION
1	VCC
2	N.C.
3	IRRX
4	Ground
5	IRTX

3.11 TV-OUT Interface Port

- CN8: TV-out connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	TV-SYNC	2	TV-Y
3	GND	4	TV-C
5	GND	6	TV-CVBS

3.12 VGA Connector

The ETX-DB-ATX built-in 15-pin VGA connector accepts the CRT monitor.

- CN10: 15-pin Female Connector

1	RED	2	GREEN
3	BLUE	4	NC
5	GROUND	6	GROUND
7	GROUND	8	GROUND

9	NC	10	GROUND
11	NC	12	DDC DAT
13	HSYNC	14	VSYNC
15	DDCCLK		

3.13 LCD/LVDS Interface Connector

The ETX-DB-ATX provides one 30-pin connector for the LVDS flat panel interface.

• CN12: Two channel 48 bits LVDS Interface Connector

PIN NO.	Description	PIN NO.	Description
1	GND	2	GND
3	TxOUT03+	4	TxOUT03-
5	TxCLKOUT0+	6	TxCLKOUT0-
7	TxOUT02+	8	TxOUT02-
9	TxOUT01+	10	TxOUT01-
11	TxOUT00+	12	TxOUT00-
13	GND	14	GND
15	TxOUT13+	16	TxOUT13-
17	TxCLKOUT1+	18	TxCLKOUT1-
19	TxOUT12+	20	TxOUT12-
21	TxOUT11+	22	TxOUT11-
23	TxOUT10+	24	TxOUT10-
25	GND	26	GND
27	PLCD(5V/3.3V)	28	PLCD(5V/3.3V)
29	PLCD(5V/3.3V)	30	PLCD(5V/3.3V)

3.14 LAN RJ45 Connector

The ETX-DB-ATX built-in RJ45 LAN connector is for 10/100Mbps Ethernet. The onboard LAN Chip is Intel 82551QM or RealTek RTL8100BL.(IDSEL# = AD26, INTx# = INTA#, REQx# = REQ1#, GNTx# = GNT1#)

• CN20, CN21: LAN RJ45 Connector

1	TX+	5	GND
---	-----	---	-----

2	TX-	6	RX-
3	RX+	7	GND
4	GND	8	GND

3.15 AUDIO JACK

• CN7: Audio Jack

color	Signal
Lime	Line-out
Blue	Line-in
Pink	MIC

3.16 PCI BUS Interface

- PSLOT1: PCI Slot 1
- PSLOT2: PCI Slot 2

PCI Routing List

SIGNAL	PIN No.	PSLOT 1	PSLOT 2
REQ#	B18	REQ0#	REQ1#
GNT#	A17	GNT0#	GNT1#
CLOCK	B16	PCICLK1	PCICLK2
IDSEL	A26	AD19	AD20
INTA#	A6	A	B
INTB#	B7	B	C
INTC#	A7	C	D
INTD#	B8	D	A

• PSLOT1~PSLOT2: PCI Bus pin assignment

A				B			
NO.	Signal	NO.	Signal	NO.	Signal	NO.	Single
1	N.C.	2	+12V	1	-12V	2	N.C.
3	N.C.	4	N.C.	3	GND	4	N.C.
5	+5V	6	INTA#	5	+5V	6	+5V
7	INTC#	8	+5V	7	INTB#	8	INTD#
9	N.C.	10	+5V	9	N.C.	10	N.C.
11	N.C.	12	GND	11	N.C.	12	GND
13	GND	14	N.C.	13	GND	14	N.C.
15	PCIRST#	16	+5V	15	GND	16	PCICLK
17	GNT#	18	GND	17	GND	18	REQ#
19	PME#	20	AD30	19	+5V	20	AD31
21	3.3V	22	AD28	21	AD29	22	GND
23	AD26	24	GND	23	AD27	24	AD25
25	AD24	26	IDSEL	25	3.3V	26	CBE3#
27	3.3V	28	AD22	27	AD23	28	GND
29	AD20	30	GND	29	AD21	30	AD19
31	AD18	32	AD16	31	3.3V	32	AD17
33	3.3V	34	FRAME#	33	CBE2#	34	GND
35	GND	36	TRDY#	35	IRDY#	36	3.3V
37	GND	38	STOP#	37	DEVSEL#	38	GND
39	3.3V	40	N.C.	39	LOCK#	40	PERR#
41	N.C.	42	GND	41	3.3V	42	SERR#
43	PAR	44	AD15	43	3.3V	44	CBE1#
45	3.3V	46	AD13	45	AD14	46	GND
47	AD11	48	GND	47	AD12	48	AD10
49	AD9	50	KEY	49	GND	50	KEY
51	KEY	52	CBE0#	51	KEY	52	AD8
53	3.3V	54	AD6	53	AD7	54	3.3V
55	AD4	56	GND	55	AD5	56	AD3
57	AD2	58	AD0	57	GND	58	AD1
59	+5V	60	N.C.	59	+5V	60	N.C.
61	+5V	62	+5V	61	+5V	62	+5V

3.17 ISA BUS Interface

- ISA1: ISA Slot 1
- ISA1: ISA Bus pin assignment

A		B		C		D	
NO.	Signal	NO.	Signal	NO	Signal	NO	Signal
1	IOCHCK#	33	GND	1	SBHE#	1	MEMCS16#
2	SD7	34	IRSTDRV	2	LA23	2	IOCS16#
3	SD6	35	VCC	3	LA22	3	IRQ10
4	SD5	36	IRQ9	4	LA21	4	IRQ11
5	SD4	37	-5V	5	LA20	5	IRQ12
6	SD3	38	DRQ2	6	LA19	6	IRQ15
7	SD2	39	-12V	7	LA18	7	IRQ14
8	SD1	40	ZWS	8	LA17	8	DACK0#
9	SD0	41	+12V	9	MEMR#	9	DREQ0
10	IOCHRDY	42	GND	10	MEMW#	10	DACK5#
11	AEN	43	SMEMW#	11	SD8	11	DREQ5
12	LA19	44	SMEMR#	12	SD9	12	DACK6#
13	LA18	45	IOW#	13	SD10	13	DREQ6
14	LA17	46	IOR#	14	SD11	14	DACK7#
15	SA16	47	DACK3#	15	SD12	15	DREQ7
16	SA15	48	DRQ3	16	SD13	16	VCC
17	SA14	49	DACK1#	17	SD14	17	MASTER#
18	SA13	50	DRQ1	18	SD15	18	GND
19	SA12	51	REFRESH#				
20	SA11	52	SYSCLK				
21	SA10	53	IRQ7				
22	SA9	54	IRQ6				
23	SA8	55	IRQ5				
24	SA7	56	IRQ4				
25	SA6	57	IRQ3				
26	SA5	58	DACK2				
27	SA4	59	TC				
28	SA3	60	BALE				
29	SA2	61	VCC				
30	SA1	62	OSC				
31	SA0	63	GND				
32	GND	64	GND				

3.18 ATX power connector

- **PW1: ATX power connector pin assignment**

ATX(PW1)			
PIN	NAME	PIN	NAME
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	PWR OK	18	-5V
9	STB5V	19	+5V
10	+12V	20	+5V

3.19 Front Panel Pin Header

- **CN17: Front Panel Pin Header pin assignment**

Font Panel Pin Header (CN17)			
PIN	NAME	PIN	NAME
1	Power LED+	2	External Buzzer+
3	Power LED+	4	GND
5	GND	6	Internal Buzzer-
7	K/B Lock	8	External Buzzer-
9	Power LED-	10	N.C.
11	Power Button1	12	HDD LED-
13	Power Button2	14	HDD LED+
15	N.C.	16	N.C.
17	N.C.	18	Reset button1
19	GND	20	Reset button2

3.20 Digital IO connector

- **CN1: Digital IO connector pin assignment**

Digital IO(CN1)			
PIN	NAME	PIN	NAME
1	GND	2	+5V
3	OUT3	4	OUT2
5	OUT1	6	OUT0
7	IN3	8	IN2
9	IN1	10	IN0

3.21 Keyboard & PS/2 Mouse Connector

A 6-pin mini DIN connector (CN6) is located on the mounting bracket for easy connection to a keyboard or PS/2 mouse. The card comes with a cable to convert from the 6-pin mini-DIN connector to two 6-pin mini-DIN connector for keyboard and mouse connection

- **CN6: Top 6-pin Mini-DIN Mouse Connector**

PIN NO.	DESCRIPTION
1	MOUSE DATA
2	N.C.
3	GROUND
4	+5V
5	MOUSE CLOCK
6	N.C.

- **CN6: Bottom 6-pin Mini-DIN Keyboard Connector**

PIN NO.	DESCRIPTION
1	KEYBOARD DATA
2	N.C.
3	GROUND
4	+5V
5	KEYBOARD CLOCK
6	N.C.

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