

Base Board for COM Express Type 2 modules

ICE-DB-9S

Quick Installation Guide

Version 1.0

Oct. 23, 2008

Package Contents

ICE-DB-9S package includes the following items:

- 1 x ICE-DB-9S COM Express Base Board
- 2 x SATA Cable
- 1 x Dual Ports RS-232 Cable
- 1 x Mini Jumper Pack
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU Module Interface: Support COM Express Basic/ Compact/ Nano Modules using pint out Type2
- Display Interface:
 - VGA DB15 connector
 - 18/24-bit Dual-Channel LVDS Connector
 - TV-out interface
- Ethernet connector: 1 x RJ-45 GbE connector
- I/O Interface:
 - 2/4 x SATA/SATA II
 - 6 x USB 2.0 (4 on rear side, 2 by pin-header)
 - 1 x IDE
 - 5 x RS-232
 - 1 x RS-232/422/485
 - 1 x CF type II
 - 1 x FDD
 - 1 x LPT
 - 1 x PS2 KB/MS
- Expansions:
 - 1 x PCIe x16 slot
 - 4 x PCIe x1 slot
 - 3 x PCI slot
 - 1 x PCIe Mini card slot
 - 1 x Express Card slot
 - 1 x Mini PCI Card slot
- Super I/O: Winbond W83627EHG
Second Super I/O: Fintek F81216
- Debug 80 port: Post Code on Board (2 x 7-Segment Debug LED)
- Infrared Interface: 1 x Infrared Interface
- Digital I/O:
 - 8-bit digital I/O, 4-bit input, 4-bit output by Winbond W83627EHG
 - 8-bit digital I/O, 4-bit input, 4-bit output by Fintek F75111R

- TPM: 1 x TPM pin-header (Reserve for option)
- Second BIOS: 1 x Second BIOS Socket (Reserve for option)
- Power Supply: AT/ATX support
- Fan: 1 x CPU Fan connector, 2 x System Fan connector
- Humidity: Operation: 5% ~ 95%, non-condensing
- Temperature: 0 ~ 60°C(32 ~ 140°F)
- Dimension: 304.8 mm x 243.8 mm (12" x 9.6")

Ordering Information

ICE-DB-9S-R10: Base Board for COM Express Type 2 modules

19800-000082-RS: RS-232/422/485 cable

32100-088600-RS: SATA Power cable

32200-000052-RS: 40 pin 3.5" IDE cable

32200-000017-RS: FDD cable

Table of Jumper setting

LABEL	FUNCTION
JP9	Clear CMOS Setup jumper setting
J_VLVDS1	LVDS1 Voltage Selection jumper setting
JP2,JP3	COM2, COM3 RI Selection jumper setting
JP6	COM6 RS-232/422/485 Mode Selection jumper setting
JCF1	CF Card Master/Slave Selection jumper setting
JP4	CF Power Selection jumper setting
CN25	GPIO connector (CN27) Program select by I ² C/ SMBUS Mode jumper setting
JP8	Second BIOS jumper setting
JP1	PCI Express Graphics jumper setting
JP10	ATX & AT Power Mode jumper setting

JP9 : Clear CMOS Setup	
JP9	DESCRIPTION
Short 1-2	Keep CMOS Setup(default) (Normal Operation)
Short 2-3	Clear CMOS Setup

J_VLVDS1 : LVDS1 Voltage Selection	
J_VLVDS1	DESCRIPTION
1-2	+3.3V LVDS (default)
2-3	+5V LVDS

JP2,JP3 : Configure COM2 & COM3 RI Mode	
JP2,3	DESCRIPTION
Short 1-2	VCC
Short 3-4	RI (default)
Short 5-6	+12V

JP6 : Configure COM6 Mode	
JP6	DESCRIPTION
Short 1-2	RS – 232 (default)
Short 3-4	RS - 422
Short 5-6	RS - 485

JCF1 : Configure CF Card type	
JCF1	DESCRIPTION
Short 1-2	Slave (default)
Short 2-3	Master

JP4 : Configure CF Card Power	
JP4	DESCRIPTION
Short 1-2	VCC (+5V) (default)
Short 2-3	+3.3V

CN25: Configure GPIO connector (CN27) Program Mode	
CN25	DESCRIPTION
Short 1-2 3-4	I2C BUS (default)
Short 5-6 7-8	SMBUS

JP8 : Second BIOS setting	
JP8	DESCRIPTION
Short 1-2	Enable (default)
Short 2-3	Disable

JP1 : PCI Express Graphics setting	
JP1	DESCRIPTION
Short 1-2	Disable (default)
Short 2-3	Enable

JP10 : ATX/AT Power Mode Setting	
JP10	DESCRIPTION
Short 1-2	ATX Power Mode (default)
Short 3-4	AT Power Mode

Table of Connectors

LABEL	FUNCTION
CON7	VGA 15-pin Female Connector
CN26	External 2 Ports USB Connector
LAN1_USB	LAN and USB Port Connectors
CN6	Keyboard & Mouse Connectors
COM1	External COM Port Connector (RS-232)
COM2~5	Internal Serial Port Connectors (RS-232)
COM6	Internal Serial Port Connector (RS-232/422/485)

PWR1	ATX Power Connector
LPT1	Parallel Port Connector
USB1	Internal 2 Port USB Connectors
AUDIO1	Extend Audio Module Connector
AUDIO2	Internal Audio Connector
CN20	Front Audio Connector
SPDIF1	Internal SPDIF Connector
CN21	Internal CD-IN Connector
S_ATA1~4	Serial ATA Connectors
IR1	Infrared Interface Connector
FAN1	CPU Fan Connector
TV1	TV Out Connector
IDE1	IDE Connector
FAN2 FAN3	System Fan Connectors
INVERTER1	LVDS Panel Backlight +12V Power Source connector
FDD1	Floppy Disk Drive Connector
CN5	LVDS Panel Connector
DIO1	Digital I/O Connector (by Winbond W83627EHG)
F_PANEL1	Speaker, PWR & RST Buttons and Indicators connector
PWR2	+12V Power Input Connector
CN22	SMBUS Connector
CN23	I ² C BUS Connector
CN24	COM Express GPIO Connector
CN27	GPIO Connector (by F75111R)
CF1	Compact Flash Slot
CN1	PCIe Mini Card slot
CN4	Trusted Platform Module (TPM) connector (Option)
E_CARD_CON1	Express Card Connector
COMEXPRESS1 COMEXPRESS2	COM Express connector AB & CD
PCIE1~4	PCIe x1 slot
PCIEX16_1	PCIe x16 slot
PCI1~3	PCI slot
CN2	Mini PCI Card slot
CN3	80 port programming connector (Option)
J2	ATMEGA programming port connector (Option)
SW1	Reset Button
SW2	Power Button
BAT1	Battery socket

CON7 : VGA15-pin Female Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	GND
7	GND	8	GND
9	NC	10	GND
11	NC	12	DDCDAT
13	HSYNC	14	VSYNC
15	DDCCLK		

CN26: External 2 Port USB Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC (+5V)	5	VCC (+5V)
2	DATA-	6	DATA-
3	DATA+	7	DATA+
4	GND	8	GND

LAN1_USB: RJ-45 LAN Connector (For LAN)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	MDIA3-	5	MDIA1+
2	MDIA3+	6	MDIA2+-
3.	MDIA2-	7	MDIA0-
4.	MDIA1-	8	MDIA0+

LAN1_USB: USB connector (For USB)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC (+5V)	5	VCC (+5V)
2	DATA-	6	DATA-
3	DATA+	7	DATA+
4	GND	8	GND

**CN6: (Purple)6-pin Mini-DIN Keyboard Connector
(Green) 6-pin Mini-DIN Mouse Connector**

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	Keyboard Data	7	Mouse Data
2	NC	8	NC
3	GND	9	GND
4	VCC (+5V)	10	VCC (+5V)
5	Keyboard Clock	11	Mouse Clock
6	NC	12	NC

COM1 : External Serial Port Connector (RS-232)		
PIN NO.	DESCRIPTION	
1	DATA CARRIER DETECT	(DCD#)
2	RECEIVE DATA	(RXD)
3	TRANSMIT DATA	(TXD)
4	DATA TERMINAL READY	(DTR#)
5	GND	
6	DATA SET READY	(DSR#)
7	REQUEST TO SEND	(RTS#)
8	CLEAR TO SEND	(CTS#)
9	RING INDICATOR	(RI#)

COM2, 3, 4, 5 : Internal Serial Port Connectors (RS-232)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	DATA CARRIER DETECT (DCD#)	6	DATA SET READY (DSR#)
2	RECEIVE DATA (RXD)	7	REQUEST TO SEND (RTS#)
3	TRANSMIT DATA (TXD)	8	CLEAR TO SEND (CTS#)
4	DATA TERMINAL READY (DTR#)	9	RING INDICATOR (RI#)
5	GND	10	N/C

COM6 : Internal Serial Port Connector (RS-232/422/485)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	DATA CARRIER DETECT (DCD#)	2	DATA SET READY (DSR#)
3	RECEIVE DATA (RXD)	4	REQUEST TO SEND (RTS#)
5	TRANSMIT DATA (TXD)	6	CLEAR TO SEND (CTS#)
7	DATA TERMINAL READY (DTR#)	8	RING INDICATOR (RI#)
9	GND	10	GND
11	TXD485+	12	TXD485#
13	RXD485+	14	RXD485#

PWR1: ATX Power Connector			
Pin	Description	Pin	Description
1	+3.3Vdc	11	+3.3Vdc
2	+3.3Vdc	12	-12Vdc
3	GND	13	GND
4	+5Vdc	14	PS-ON
5	GND	15	GND
6	+5Vdc	16	GND
7	GND	17	GND
8	PWR-OK	18	-5Vdc
9	+5VSB	19	+5Vdc
10	+12Vdc	20	+5Vdc

LPT1 : Parallel Port Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	STROBE#	2	DATA 0
3	DATA 1	4	DATA 2
5	DATA 3	6	DATA 4
7	DATA 5	8	DATA 6
9	DATA 7	10	ACKNOWLEDGE
11	BUSY	12	PAPER EMPTY
13	PRINTER SELECT	14	AUTO FORM FEED #
15	ERROR#	16	INITIALIZE
17	PRINTER SELECT IN#	18	GROUND
19	GROUND	20	GROUND
21	GROUND	22	GROUND
23	GROUND	24	GROUND
25	GROUND		

USB1: Internal 2 Ports USB Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC (+5V)	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC (+5V)

AUDIO1: Extend Audio Module Connector	
PIN NO.	DESCRIPTION
Line-in (Blue)	CD/DVD or other audio source input port
Line-out (Pink)	Connect this port to headphone or speaker
Microphone (Green)	Connect this port to microphone

AUDIO2 : Internal Audio Connectors			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	LET-OUT	2	LCEN-OUT
3	CEN-JD	4	SURR-JD
5	LSURR-R	6	LSURR-L
7	SIDESURR-R	8	SIDESURR-L
9	SIDESURR-JD	10	GND

CN20 : Front Audio Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	MIC_L	2	GND
3	MIC_R	4	Audio Detect
5	LINE2-R	6	GND
7	Jack Detection	8	N/C
9	LINE2-L	10	GND

SPDIF1 : Internal SPDIF Connector	
PIN No.	DESCRIPTION
1	5V
2	N/C
3	SPDIFOUT
4	GND
5	SPDIFIN

CN21 : Internal CD in Connector	
PIN No.	DESCRIPTION
1	CD-L
2	CD-GND
3	CD-GND
4	CD-R

S_ATA1~4 : Serial ATA Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	5	RX-
2	TX+	6	RX+
3	TX-	7	GND
4	GND		

IR1: Infrared Interface connector	
PIN NO.	DESCRIPTION
1	VCC (+5V)
2	NC
3	IR-RX
4	GND
5	IR-TX

FAN1 : CPU Fan Connector	
PIN NO.	DESCRIPTION
1	Ground
2	+12V
3	FANIO1
4	PWM

TV1: Video output for television S-Video Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	AGREEN_Y
3	GND	4	ARED_C
RCA Connector (only video signal)			
5	GND	6	ABLUE_CVBS

IDE1: IDE Interface Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RESET#	2	GND
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	GND	20	N/C
21	IDE DRQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IDE CHRDY	28	BALE – DEFAULT
29	IDE DACK	30	GND
31	INTERRUPT	32	N/C
33	SA1	34	PDIAG#
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GND

FAN2 、 FAN3 : System Fan Connector	
PIN NO.	DESCRIPTION
1	FAN_IO
2	+12V (PWM)
3	GND

INVERTER1 : 5-pin Header Inverter Connector	
PIN NO.	DESCRIPTION
1	LCD_BKLTCTL
2	GND
3	+12V
4	GND
5	BACKLIGHT ENABLE

FDD1: FDC Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	REDUCE WRITE
3	GND	4	N/C
5	N/C	6	N/C
7	GND	8	INDEX#
9	GND	10	MOTOR ENABLE A#
11	GND	12	DRIVE SELECT B#
13	GND	14	DRIVE SELECT A#
15	GND	16	MOTOR ENABLE B#
17	GND	18	DIRECTION#
19	GND	20	STEP#
21	GND	22	WRITE DATA#
23	GND	24	WRITE GATE#
25	GND	26	TRACK 0#
27	GND	28	WRITE PROTECT#
29	GND	30	READ DATA#
31	GND	32	SIDE 1 SELECT#
33	GND	34	DISK CHANGE#

CN5: LVDS Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND1	2	GND2
3	A_Y0	4	A_Y0#
5	A_Y1	6	A_Y1#
7	A_Y2	8	A_Y2#
9	A_CK	10	A_CK#
11	NC	12	NC
13	GND3	14	GND4
15	B_Y0	16	B_Y0#
17	B_Y1	18	B_Y1#
19	B_Y2	20	B_Y2#
21	B_CK	22	B_CK#
23	NC	24	NC
25	GND5	26	GND6
27	VCC_LCD	28	VCC_LCD
29	VCC_LCD	30	VCC_LCD

DIO1 : Digital Input / Output Connector (by Winbond W83627EHG)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	+5V
3	Input 0	4	Output 0
5	Input 1	6	Output 1
7	Input 2	8	Output 2
9	Input 3	10	Output 3

F_PANEL1 : Speaker, PWR & RST Buttons and Indicators panel					
	PIN	DESCRIPTION	PIN	DESCRIPTION	
Power LED	1	+5V	2	+5V	Speaker
	3	N/C	4	N/C	
	5	GND	6	N/C	
PWRBTN	7	PWRBTN+	8	Speaker	RESET
	9	PWRBTN-	10	N/C	
HDDLED	11	+5V	12	Reset-	RESET
	13	HDLED-	14	GND	

PWR2 : +12V Power Input Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

CN22 : 5-pin Header SMBUS Connector	
PIN NO.	DESCRIPTION
1	+5V_DUAL
2	SMBUS CLOCK
3	SMBUS DATA
4	GND
5	GND

CN23 : 5-pin Header I²C BUS Connector	
PIN NO.	DESCRIPTION
1	+5V_DUAL
2	I ² C CLOCK
3	I ² C DATA
4	GND
5	GND

CN24 : COM Express Digital Input / Output Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	+5V
3	GPI 0	4	GPO 0
5	GPI 1	6	GPO 1
7	GPI 2	8	GPO 2
9	GPI 3	10	GPO 3

CN27 : Digital Input / Output Connector (by Fintek F75111R)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC (+5V)	2	VCC (+5V)
3	GPIO1	4	GPIO5
5	GPIO2	6	GPIO6
7	GPIO3	8	GPIO7
9	GPIO4	10	GPIO8
11	GND	12	GND

CF1 : CF Card Interface Slot			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	26	CD1#
2	D3	27	D11
3	D4	28	D12
4	D5	29	D13
5	D6	30	D14
6	D7	31	D15
7	CE#	32	CE2#
8	A10	33	VS1#
9	OE#	34	IOR#
10	A9	35	IOW#
11	A8	36	WE#
12	A7	37	IRQ
13	VCC	38	VCC (+5V)
14	A6	39	CSEL#
15	A5	40	VS2#
16	A4	41	RESET#
17	A3	42	WAIT#
18	A2	43	INPACK#
19	A1	44	REG#
20	A0	45	BVD2
21	D0	46	BVD1
22	D1	47	D8
23	D2	48	D9
24	IOCS16#	49	D10
25	CD2#	50	GND2

CN1: PCIe Mini Card Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	PCIE_WAKE#	2	+3.3V
3	N/C	4	GND
5	N/C	6	+1.5V
7	CLKREQ#	8	LFRAME#
9	GND	10	LAD3
11	CLK-	12	LAD2
13	CLK+	14	LAD1
15	GND	16	LAD0
17	PCIRST#	18	GND
19	LPC	20	+3.3
21	GND	22	PCIRST#
23	PERN2	24	3VDual
25	PERP2	26	GND
27	GND	28	+1.5V
29	GND	30	SMBCLK
31	PETN2	32	SMBDATA
33	PETP2	34	GND
35	GND	36	USB-
37	N/C	38	USB+
39	N/C	40	GND
41	N/C	42	N/C
43	N/C	44	RF_LINK#
45	N/C	46	BLUELED#
47	N/C	48	+1.5V
49	N/C	50	GND
51	N/C	52	+3.3

CN4: Trusted Platform Module connector (Option)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	FWHPCLK	2	GND
3	LFRAME#	4	KEY
5	PCIRST#	6	VCC (+5V)
7	LAD3	8	LAD2
9	VCC3	10	LAD1
11	LAD0	12	GND
13	SMBCLK	14	SMBDATA
15	3VDUAL	16	SERIRQ
17	GND	18	CLKRUN#
19	LPCPD#	20	LDRQ#

E_CARD_CON1: Express Card Module connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	USB-
3	USB+	4	CPUSB-
5	NC	6	NC
7	NC	8	SMBCLK
9	SMBDATA	10	+1.5V
11	PCIE WAKE-	12	+3.3VAUX
13	PERST-	14	+3.3V
15	+3.3V	16	NC
17	CPPE-	18	REFCLK-
19	REFCLK+	20	GND
21	PCIE RX	22	PCIE RX+
23	GND	24	PCIE TX-
25	PCIE TX+	26	GND

CN3: 80 port programming connector (Option)	
PIN NO.	DESCRIPTION
1	+3.3V
2	80PORT_TDO
3	80PORT_TDI
4	N/C
5	N/C
6	80PORT_TMS
7	GND
8	80PORT_TCK

J2: ATMEGA Programming Port (Option)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	ATMEGA_MISO	2	+5V
3	ATMEGA_SCK	4	ATMEGA_MOSI
5	ATMEGA_SS	6	GND

COMEXPRESS1 : COM Express Connector CD			
Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
C1	GND	D1	GND
C2	IDE_D7	D2	IDE_D5
C3	IDE_D6	D3	IDE_D10
C4	IDE_D3	D4	IDE_D11
C5	IDE_D15	D5	IDE_D12
C6	IDE_D8	D6	IDE_D4
C7	IDE_D9	D7	IDE_D0
C8	IDE_D2	D8	IDE_REQ
C9	IDE_D13	D9	IDE_IOW#
C10	IDE_D1	D10	IDE_ACK#
C11	GND	D11	GND
C12	IDE_D14	D12	IDE_IRQ
C13	IDE_IORDY	D13	IDE_A0
C14	IDE_IOR#	D14	IDE_A1
C15	PCI_PME#	D15	IDE_A2
C16	PCI_GNT2#	D16	IDE_CS1#
C17	PCI_REQ2#	D17	IDE_CS3#
C18	PCI_GNT1#	D18	IDE_RESET#
C19	PCI_REQ1#	D19	PCI_GNT3#
C20	PCI_GNT0#	D20	PCI_REQ3#
C21	GND	D21	GND
C22	PCI_REQ0#	D22	PCI_AD1
C23	PCI_RESET#	D23	PCI_AD3
C24	PCI_AD0	D24	PCI_AD5
C25	PCI_AD2	D25	PCI_AD7
C26	PCI_AD4	D26	PCI_C/BE0#
C27	PCI_AD6	D27	PCI_AD9
C28	PCI_AD8	D28	PCI_AD11
C29	PCI_AD10	D29	PCI_AD13
C30	PCI_AD12	D30	PCI_AD15
C31	GND	D31	GND
C32	PCI_AD14	D32	PCI_PAR
C33	PCI_C/BE1#	D33	PCI_SERR#
C34	PCI_PERR#	D34	PCI_STOP#
C35	PCI_LOCK#	D35	PCI_TRDY#
C36	PCI_DEVSEL#	D36	PCI_FRAME#
C37	PCI_IRDY#	D37	PCI_AD16

Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
C38	PCI_C/BE2#	D38	PCI_AD18
C39	PCI_AD17	D39	PCI_AD20
C40	PCI_AD19	D40	PCI_AD22
C41	GND	D41	GND
C42	PCI_AD21	D42	PCI_AD24
C43	PCI_AD23	D43	PCI_AD26
C44	PCI_C/BE3#	D44	PCI_AD28
C45	PCI_AD25	D45	PCI_AD30
C46	PCI_AD27	D46	PCI_IRQC#
C47	PCI_AD29	D47	PCI_IRQD#
C48	PCI_AD31	D48	PCI_CLKRUN#
C49	PCI_IRQA#	D49	PCI_M66EN
C50	PCI_IRQB#	D50	PCI_CLK
C51	GND	D51	GND
C52	PEG_RX0+	D52	PEG_TX0+
C53	PEG_RX0-	D53	PEG_TX0-
C54	TYPE0#	D54	PEG_LANE_RV#
C55	PEG_RX1+	D55	PEG_TX1+
C56	PEG_RX1-	D56	PEG_TX1-
C57	TYPE1#	D57	TYPE2#
C58	PEG_RX2+	D58	PEG_TX2+
C59	PEG_RX2-	D59	PEG_TX2-
C60	GND	D60	GND
C61	PEG_RX3+	D61	PEG_TX3+
C62	PEG_RX3-	D62	PEG_TX3-
C63	RSVD	D63	RSVD
C64	RSVD	D64	RSVD
C65	PEG_RX4+	D65	PEG_TX4+
C66	PEG_RX4-	D66	PEG_TX4-
C67	FAN_PWMOUT	D67	GND
C68	PEG_RX5+	D68	PEG_TX5+
C69	PEG_RX5-	D69	PEG_TX5-
C70	GND	D70	GND
C71	PEG_RX6+	D71	PEG_TX6+
C72	PEG_RX6-	D72	PEG_TX6-
C73	SDVO_DATA	D73	SVDO_CLK
C74	PEG_RX7+	D74	PEG_TX7+
C75	PEG_RX7-	D75	PEG_TX7-
C76	GND	D76	GND
C77	FAN_TACHOIN	D77	IDE_CBLID#
C78	PEG_RX8+	D78	PEG_TX8+

Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
C79	PEG_RX8-	D79	PEG_TX8-
C80	GND	D80	GND
C81	PEG_RX9+	D81	PEG_TX9+
C82	PEG_RX9-	D82	PEG_TX9-
C83	RSVD	D83	RSVD
C84	GND	D84	GND
C85	PEG_RX10+	D85	PEG_TX10+
C86	PEG_RX10-	D86	PEG_TX10-
C87	GND	D87	GND
C88	PEG_RX11+	D88	PEG_TX11+
C89	PEG_RX11-	D89	PEG_TX11-
C90	GND	D90	GND
C91	PEG_RX12+	D91	PEG_TX12+
C92	PEG_RX12-	D92	PEG_TX12-
C93	GND	D93	GND
C94	PEG_RX13+	D94	PEG_TX13+
C95	PEG_RX13-	D95	PEG_TX13-
C96	GND	D96	GND
C97	RSVD	D97	PEG_ENABLE#
C98	PEG_RX14+	D98	PEG_TX14+
C99	PEG_RX14-	D99	PEG_TX14-
C100	GND	D100	GND
C101	PEG_RX15+	D101	PEG_TX15+
C102	PEG_RX15-	D102	PEG_TX15-
C103	GND	D103	GND
C104	+V12	D104	+V12
C105	+V12	D105	+V12
C106	+V12	D106	+V12
C107	+V12	D107	+V12
C108	+V12	D108	+V12
C109	+V12	D109	+V12
C110	GND	D110	GND

COMEXPRESS2 : COM Express Connector AB			
Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
A1	GND	B1	GND
A2	GBE0_MDI3-	B2	GBE0_ACT#
A3	GBE0_MDI3+	B3	LPC_FRAME#
A4	GBE0_LINK100#	B4	LPC_AD0
A5	GBE0_LINK1000#	B5	LPC_AD1
A6	GBE0_MDI2-	B6	LPC_AD2
A7	GBE0_MDI2+	B7	LPC_AD3
A8	GBE0_LINK#	B8	LPC_DRQ0#
A9	GBE0_MDI1-	B9	LPC_DRQ1#
A10	GBE0_MDI1+	B10	LPC_CLK
A11	GND	B11	GND
A12	GBE0_MDI0-	B12	PWRBTN#
A13	GBE0_MDI0+	B13	SMB_CK
A14	GBE0_CTREF	B14	SMB_DAT
A15	SUS_S3#	B15	SMB_ALERT#
A16	SATA0_TX+	B16	SATA1_TX+
A17	SATA0_TX-	B17	SATA1_TX-
A18	SUS_S4#	B18	SUS_STAT#
A19	SATA0_RX+	B19	SATA1_RX+
A20	SATA0_RX-	B20	SATA1_RX-
A21	GND	B21	GND
A22	SATA2_TX+	B22	SATA3_TX+
A23	SATA2_TX-	B23	SATA3_TX-
A24	SUS_S5#	B24	PWR_OK
A25	SATA2_RX+	B25	SATA3_RX+
A26	SATA2_RX-	B26	SATA3_RX-
A27	BATLOW#	B27	WDT
A28	ATA_ACT#	B28	AC_SDIN2
A29	AC_SYNC	B29	AC_SDIN1
A30	AC_RST#	B30	AC_SDIN0
A31	GND	B31	GND
A32	AC_BITCLK	B32	SPKR
A33	AC_SDOUT	B33	I2C_CK
A34	BIOS_DISABLE#	B34	I2C_DAT
A35	THRMTRIP#	B35	THRM#
A36	USB6-	B36	USB7-

Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
A37	USB6+	B37	USB7+
A38	USB_6_7_OC#	B38	USB_4_5_OC#
A39	USB4-	B39	USB5-
A40	USB4+	B40	USB5+
A41	GND	B41	GND
A42	USB2-	B42	USB3-
A43	USB2+	B43	USB3+
A44	USB_2_3_OC#	B44	USB_0_1_OC#
A45	USB0-	B45	USB1-
A46	USB0+	B46	USB1+
A47	VCC_RTC	B47	EXCD1_PERST#
A48	EXCD0_PERST#	B48	EXCD1_CPPE#
A49	EXCD0_CPPE#	B49	SYS_RESET#
A50	LPC_SERIRQ	B50	CB_RESET#
A51	GND	B51	GND
A52	PCIE_TX5+	B52	PCIE_RX5+
A53	PCIE_TX5-	B53	PCIE_RX5-
A54	GPI0	B54	GPO1
A55	PCIE_TX4+	B55	PCIE_RX4+
A56	PCIE_TX4-	B56	PCIE_RX4-
A57	GND	B57	GPO2
A58	PCIE_TX3+	B58	PCIE_RX3+
A59	PCIE_TX3-	B59	PCIE_RX3-
A60	GND	B60	GND
A61	PCIE_TX2+	B61	PCIE_RX2+
A62	PCIE_TX2-	B62	PCIE_RX2-
A63	GPI1	B63	GPO3
A64	PCIE_TX1+	B64	PCIE_RX1+
A65	PCIE_TX1-	B65	PCIE_RX1-
A66	GND	B66	WAKE0#
A67	GPI2	B67	WAKE1#
A68	PCIE_TX0+	B68	PCIE_RX0+
A69	PCIE_TX0-	B69	PCIE_RX0-
A70	GND	B70	GND
A71	LVDS_A0+	B71	LVDS_B0+
A72	LVDS_A0-	B72	LVDS_B0-
A73	LVDS_A1+	B73	LVDS_B1+

Pin No.	DESCRIPTION	Pin No.	DESCRIPTION
A74	LVDS_A1-	B74	LVDS_B1-
A75	LVDS_A2+	B75	LVDS_B2+
A76	LVDS_A2-	B76	LVDS_B2-
A77	LVDS_VDD_EN	B77	LVDS_B3+
A78	LVDS_A3+	B78	LVDS_B3-
A79	LVDS_A3-	B79	LVDS_BKLT_EN
A80	GND	B80	GND
A81	LVDS_A_CK+	B81	LVDS_B_CK+
A82	LVDS_A_CK-	B82	LVDS_B_CK-
A83	LVDS_I2C_CK	B83	LVDS_BKLT_CTRL
A84	LVDS_I2C_DAT	B84	5VSB
A85	GPI3	B85	5VSB
A86	KBD_RST#	B86	5VSB
A87	KBD_A20GATE	B87	5VSB
A88	PCIE0_CK_REF+	B88	RSVD
A89	PCIE0_CK_REF-	B89	VGA_RED
A90	GND	B90	GND
A91	RSVD	B91	VGA_GRN
A92	RSVD	B92	VGA_BLU
A93	GPO0	B93	VGA_HSYNC
A94	RSVD	B94	VGA_VSYNC
A95	RSVD	B95	VGA_I2C_CK
A96	GND	B96	VGA_I2C_DAT
A97	+V12	B97	TV_DAC_A
A98	+V12	B98	TV_DAC_B
A99	+V12	B99	TV_DAC_C
A100	GND	B100	GND
A101	+V12	B101	+V12
A102	+V12	B102	+V12
A103	+V12	B103	+V12
A104	+V12	B104	+V12
A105	+V12	B105	+V12
A106	+V12	B106	+V12
A107	+V12	B107	+V12
A108	+V12	B108	+V12
A109	+V12	B109	+V12
A110	GND	B110	GND

Board Layout: Jumper and Connector Locations



