Chapter

1

Quick Installation Guide

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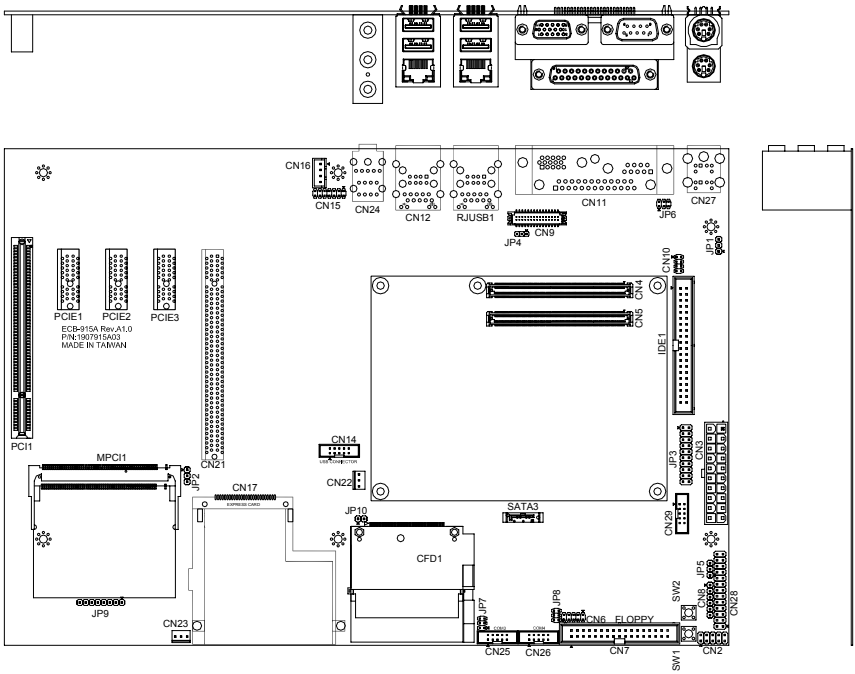
1.1 Safety Precaution

Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.

Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis

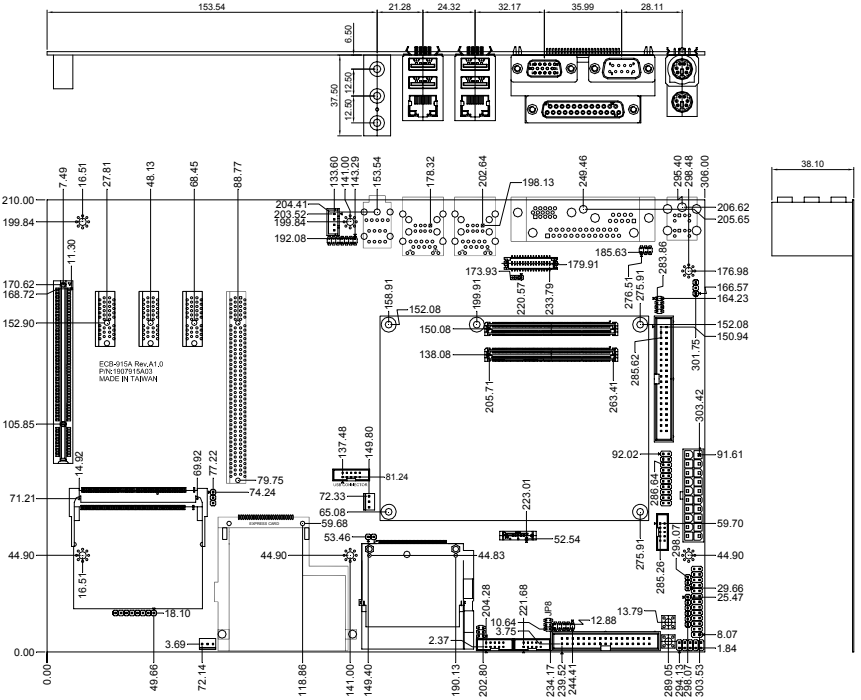
1.2 Location of Connectors and Jumpers

Component Side



1.3 Mechanical Drawing

Component Side



1.4 List of Jumpers

The board has a number of jumpers that allow you to configure your system to suit your application.

The table below shows the function of each of the board's jumpers:

Jumpers

Label	Function
JP1	BIOS Selection
JP2	Clear CMOS Selection
JP3	Jumper for Testing & Debug
JP4	LVDS Voltage Selection
JP5	BIOS write protection Selection
JP6	COM1 Ring Voltage Selection
JP7	COM3 Ring Voltage Selection
JP8	COM4 Ring Voltage Selection
JP9	CPLD programming Jumper
JP10	CF Card Selection

1.5 List of Connectors

The board has a number of connectors that allow you to configure your system to suit your application. The table below shows the function of each board's connectors:

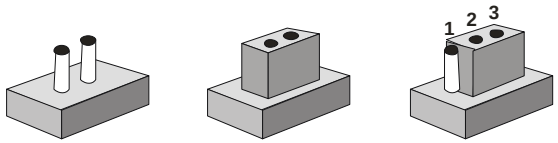
Label	Function
CN2	Front Panel
CN3	ATX Power Connector
CN4	COM-Express Connector (Row A & B)
CN5	COM-Express Connector (Row C & D)
CN6	Digital IO Connector
CN7	Floppy Connector
CN8	IR Connector
CN9	LVDS Connector
CN10	TV-Out Connector
CN11	CRT + COM1 + Printer port Connector
RJUSB1	LAN + USB Connector (Intel 82562ET)
CN12	LAN + USB Connector (Marvell 88E8053)
CN14	USB Connector
CN15	Audio 5.1 Channel Connector
CN16	CD-IN Connector
CN17	Express Card Connector
CN21	PCI-Express 16X Graphic Connector
CN22	CPU Fan Connector

CN23	System Fan Connector
CN24	Audio Connector
CN25	COM3 Connector
CN26	COM4 Connector
CN27	Keyboard & Mouse Connector
CN28	LPC Connector
CN29	COM2 Connector
IDE1	IDE Connector
CFD1	Compact Flash Connector
SATA3	SATA Connector
PCIE1	PCI Express 1X Connector
PCI1	PCI Slot Connector
MPCI1	Mini PCI Connector
SW1	Reset Button
SW2	Power Button

1.6 Setting Jumpers

You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” a jumper you connect the pins with the clip.

To “open” a jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2 and 3. In this case you would connect either pins 1 and 2 or 2 and 3.



Open **Closed** **Closed 2-3**

A pair of needle-nose pliers may be helpful when working with jumpers.

If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any change.

Generally, you simply need a standard cable to make most connections.

1.7 BIOS Selection (JP1)

√	From CPU Board					From Carried Board			
	1	2	3			1	2	3	
	■	●	○			□	●	●	

1.8 Clear CMOS Selection (JP2)

√	Normal					Clear CMOS			
	1	2	3			1	2	3	
	■	●	○			□	●	●	

1.9Jumper for Testing & Debug (JP3)

Pin	Signal	Pin	Signal
1	SMB_ALERT#	2	NC
3	PM_THRM#	4	NC
5	PM_BATLOW#	6	NC
7	PM_THRMTRIP#	8	VCC3
9	PM_SLP_S4#	10	PM_SUS_STAT#
11	GPI7	12	GPI13
13	GPI12	14	GPIO24
15	I2C_CLK	16	I2C_DAT
17	PEG_ENABLE	18	GND
19	PEG_LANE_RV#	20	GND

1.10 LVDS Panel Voltage Selection (JP4)

√	3.3V				5V			
	1	2	3		1	2	3	
	□	●	●		■	●	○	

1.11 BIOS write protection Selection (JP5)

√	Normal				BIOS write protection			
	1	2	3		1	2	3	
	■	●	○		□	●	●	

1.12 COM1 RI pin voltage selection (JP6)

√	RI				5V				12V			
	2	4	6		2	4	6		2	4	6	
	○	○	●		○	●	○		●	○	○	
	□	○	●		□	●	○		■	○	○	
	1	3	5		1	3	5		1	3	5	

1.13 COM3 RI pin voltage selection (JP7)

√	RI				5V				12V			
	2	4	6		2	4	6		2	4	6	
	○	○	●		○	●	○		●	○	○	
	□	○	●		□	●	○		■	○	○	
	1	3	5		1	3	5		1	3	5	

1.14 COM4 RI pin voltage selection (JP8)

√	RI				5V				12V			
	2	4	6		2	4	6		2	4	6	
	○	○	●		○	●	○		●	○	○	
	□	○	●		□	●	○		■	○	○	
	1	3	5		1	3	5		1	3	5	

1.15 CPLD programming Jumper (JP9)

Pin	Signal
1	VCC3
2	TDO
3	TDI
4	NC
5	NC
6	TMS
7	GND
8	TCK

1.16 CF Card Selection (JP10)

√	CF Card Enable				CF Card Disable		
	1	2			1	2	
	■	●			□	○	

1.17 Front Panel (CN2)

Pin	Signal	Pin	Signal
1	GND	2	Power BT
3	HD_LED	4	3.3V
5	BEEP	6	5V
7	GND	8	Power LED
9	GND	10	Reset

1.18 ATX Power Connector (CN3)

Pin	Signal	Pin	Signal
1	NC	11	NC
2	NC	12	-12V
3	Ground	13	Ground
4	5V	14	PSON
5	Ground	15	Ground
6	5V	16	Ground
7	Ground	17	Ground
8	POK	18	-5V.
9	5VSB	19	5V
10	12V	20	5V

1.19 COM-Express Connector (CN4)

Standard COM-Express Connector (Row A & B)

1.20 COM-Express Connector (CN5)

Standard COM-Express Connector (Row C & D)

1.21 Digital IO Connector (CN6)

Pin	Signal	Pin	Signal
1	DIO1	2	DIO2
3	DIO3	4	DIO4
5	DIO5	6	DIO6
7	DIO7	8	DIO8
9	5V	10	GND

1.22 Floppy Connector (CN7)

Standard Floppy Connector

1.23 IR Connector (CN8)

Pin	Signal
1	5V
2	NC
3	IRRX
4	Ground
5	IRTX
6	NC

1.24 LVDS Connector (CN9)

Pin	Signal	Pin	Signal
1	L_BKLTEN	2	L_BKLTCTL
3	LVDS_VCC	4	GND
5	LA_CLKN	6	LA_CLKP
7	LVDS_VCC	8	GND
9	LA_DATAN0	10	LA_DATAP0
11	LA_DATAN1	12	LA_DATAP1
13	LA_DATAN2	14	LA_DATAP2
15	NC	16	NC
17	L_DDC_DATA	18	L_DDC_CLK
19	LB_DATAN0	20	LB_DATAP0
21	LB_DATAN1	22	LB_DATAP1
23	LB_DATAN2	24	LB_DATAP2
25	NC	26	NC
27	LVDS_VCC	28	GND
29	LB_CLKN	30	LB_CLKP

1.25 TV-Out Connector (CN10)

Pin	**Signal**	**Pin**	**Signal**
1	TV_DACC	2	TV_DACA
3	TV_GND	4	TV-GND
5	TV_DACB	6	NC
7	TV_GND	8	NC

1.26 CRT + COM1 + Printer port Connector (CN11)

Pin	Signal	Pin	Signal
PRINTER			
A1	#STROBE	A14	#AFD
A2	DATA0	A15	#ERROR
A3	DATA1	A16	#INIT
A4	DATA2	A17	#SLIN
A5	DATA3	A18	GND
A6	DATA4	A19	GND
A7	DATA5	A20	GND
A8	DATA6	A21	GND
A9	DATA7	A22	GND
A10	#ACK	A23	GND
A11	BUSY	A24	GND
A12	PE	A25	GND
A13	SELECT		
COM1			
B1	DCD	B2	RXD
B3	TXD	B4	DTR
B5	GND	B6	DSR
B7	RTS	B8	CTS
B9	RI		
CRT			
C1	RED	C9	VCC

C2	GREEN	C10	GND
C3	BLUE	C11	NC
C4	NC	C12	DDCDATA
C5	GND	C13	HSYNC
C6	GND	C14	VSYNC
C7	GND	C15	DDCCLK
C8	GND		

1.27 LAN + USB Connector (RJUSB1)

Pin	Signal	Pin	Signal
1	TCT	2	TD+
3	TD-	4	RD+
5	RD-	6	NA
7	NA	8	NA
9	NA	10	RCT
11	LED1 (Y-)	12	LED1 (Y+)
13	LED2 (G-,O+)	14	LED2 (G+,O-)
15	NC	16	NC
17	NC	18	NC
19	+5VSB	20	USBDATA0-
21	USBDATA1+	22	GND
23	+5VSB	24	USBDATA1-
25	USBDATA1+	26	GND

1.28 LAN + USB Connector (CN12)

Pin	Signal	Pin	Signal
1	TCT	2	MDIP0
3	MDIN0	4	MDIP1
5	MDIN1	6	MDIP2
7	MDIN2	8	MDIP3
9	MDIN3	10	RCT
11	LED1 (Y-)	12	LED1 (Y+)
13	LED2 (G-,O+)	14	LED2 (G+,O-)
15	NC	16	NC
17	NC	18	NC
19	+5VSB	20	USBDATA0-
21	USBDATA1+	22	GND
23	+5VSB	24	USBDATA1-
25	USBDATA1+	26	GND

LAN Chip: Marvell 88E8053

1.29 USB Connector (CN14)

Pin	Signal	Pin	Signal
1	USB_VDD	2	USB_GND
3	USBD0-	4	USB_GND
5	USBD0+	6	USBD1+
7	USB_GND	8	USB1-

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9	USB_GND	10	USB_VDD

1.30 Audio 5.1 Channel Connector (CN15)

Pin	Signal	Pin	Signal
1	Front out R	2	Audio GND
3	Front out L	4	Audio GND
5	Surround out R	6	Audio GND
7	Surround out L	8	Audio GND
9	Low Frequency Effect out	10	Audio GND
11	Center out	12	Audio GND
13	S/PDIF out	14	S/PDIF in

1.31 CD-IN Connector (CN16)

Pin	Signal
1	CD_L
2	CD_GND
3	CD_GND
4	CD_R

1.32 Express Card Connector (CN17)

Pin	Signal	Pin	Signal
1	GND	2	USBD-
3	USBD+	4	CPUSB#

5	NC	6	NC
7	SMBCLK	8	SMBDAT
9	+1.5V	10	+1.5V
11	PCIE_WAKE#	12	+3.3VAUX
13	EC1_RST#	14	+3.3V
15	+3.3V	16	NC
17	CPPE#	18	PCIE_CLK-
19	PCIE_CLK+	20	GND
21	PCIE_RXN	22	PCIE_RXP
23	GND	24	PCIE_TXN
25	PCIE_TXP	26	GND
27	GND	28	GND
29	GND	30	GND
31	GND	32	GND

1.33 LAN + USB Connector (RJUSB1)

Pin	Signal	Pin	Signal
1	PCIE_WAKE	2	+3.3V
3	NC	4	GND
5	NC	6	+1.5V
7	NC	8	UIM_PWR
9	GND	10	UIM_DATA
11	PCIE_CLK-	12	UIM_CLK
13	PCIE_CLK+	14	UIM_RESET

15	GND	16	UIM_VPP
17	UIM_C8	18	GND
19	UIM_C4	20	W_DISABLE
21	GND	22	EC2_RST
23	PCIE_RXN	24	+3.3VAUX
25	PCIE_RXP	26	GND
27	GND	28	+1.5V
29	GND	30	SMB_CLK
31	PCIE_TXN	32	SMB_DATA
33	PCIE_TXP	34	GND
35	GND	36	USBD-
37	NC	38	USBD+
39	NC	40	GND
41	NC	42	LED_WWAN#
43	NC	44	LED_WLAN#
45	NC	46	LED_WPAN#
47	NC	48	+1.5V
49	NC	50	GND
51	NC	52	+3.3V

1.34 PCI Express 16X Graphic Connector (CN21)

Standard PCI Express 16X Graphic Connector

1.35 CPU Fan Connector (CN22)

Pin	Signal
3	FAN Sense
2	5V
1	Ground

1.36 System Fan Connector (CN23)

Pin	Signal
3	FAN Sense
2	5V
1	Ground

1.37 Audio Connector (CN24)

Pin	Signal	Pin	Signal
Line-In			
A1	LINEIN_L	A3	JD2
A2	GND	A4	LINEIN_R
Line-Out			
B1	LINEOUT_L	B2	JD1
B3	GND	B4	LINEOUT_R
MIC			
C1	MIC1	C9	JD0
C2	GND	C10	MIC2

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Chassis GND			
H1	C-GND	H4	C-GND
H2	C-GND	H5	C-GND
H3	C-GND		

1.38 COM3 Connector (CN25)

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI/12V/5V	10	NC

1.39 COM4 Connector (CN26)

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI/12V/5V	10	NC

1.40 Keyboard & Mouse Connector (CN27)

Pin	Signal	Pin	Signal
1	KB_DATA	7	MS-DATA
2	MS-DATA	8	NC
3	GND	9	GND
4	+5VSB	10	+5VSB
5	KB_CLK	11	MS_CLK
6	MS_CLK	12	NC

1.41 LPC Connector (CN28)

Pin	Signal	Pin	Signal
1	PLT_RST#	2	+3.3V
3	SERIRQ	4	GND
5	LPC_AD3	6	GND
7	LPC_AD2	8	GND
9	LPC_AD1	10	GND
11	LPC_AD0	12	GND
13	LPC_FRAME#	14	GND
15	ICH_DRQ#0	16	GND
17	NC	18	GND
19	LPC_CLK	20	GND
21	PANSWH#	22	GND
23	HSYSNC_LPC	24	GND
25	NC	26	GND

1.42 COM2 Connector (CN29)

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI	10	NC

1.43 IDE Connector (IDE1)

Pin	Signal	Pin	Signal
1	IDERST	2	GND
3	PID7	4	PID8
5	PID6	6	PID9
7	PID5	8	PID10
9	PID4	10	PID11
11	PID3	12	PID12
13	PID2	14	PID13
15	PID1	16	PID14
17	PID0	18	PID15
19	GND	20	NC
21	PDREQ	22	GND
23	PIOW#	24	GND
25	PIOR#	26	GND

27	PRDY	28	GND
29	PACK#	30	GND
31	PIRQ14	32	NC
33	PPDA1	34	ATA66_DET
35	PPDA0	36	PPDA2
37	PPCS1#	38	PPCS3#
39	HDLED#	40	GND

1.44 Compact Flash Connector (CFD1)

Standard Compact Flash Connector (Type I & II)

1.45 SATA Connector (SATA3)

Standard S-ATA Connector

1.46 PCI-Express 1X Connector (PCIE1)

Standard PCI-Express (1X) Slot

1.47 PCI Slot Connector (PCI1)

Standard PCI Slot Connector

1.48 Mini PCI Connector (MPCI1)

Standard Mini PCI Connector

1.49 Reset Button (SW1)

Reset Button

1.50 Power Button (SW2)

Power Button

Below Table for China RoHS Requirements
产品中有毒有害物质或元素名称及含量

AAEON Main Board/ Daughter Board/ Backplane

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及其电子组件	×	O	O	O	O	O
外部信号连接器及线材	×	O	O	O	O	O

O：表示该有毒有害物质在该部件所有均质材料中的含量均在 **SJ/T 11363-2006** 标准规定的限量要求以下。

X：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 **SJ/T 11363-2006** 标准规定的限量要求。

备注：此产品所标示之环保使用期限，系指在一般正常使用状况下。