

Quick Installation Guide

ECB-930G Quick Installation Guide Rev.A 1st Ed

November 2010

Safety Precautions

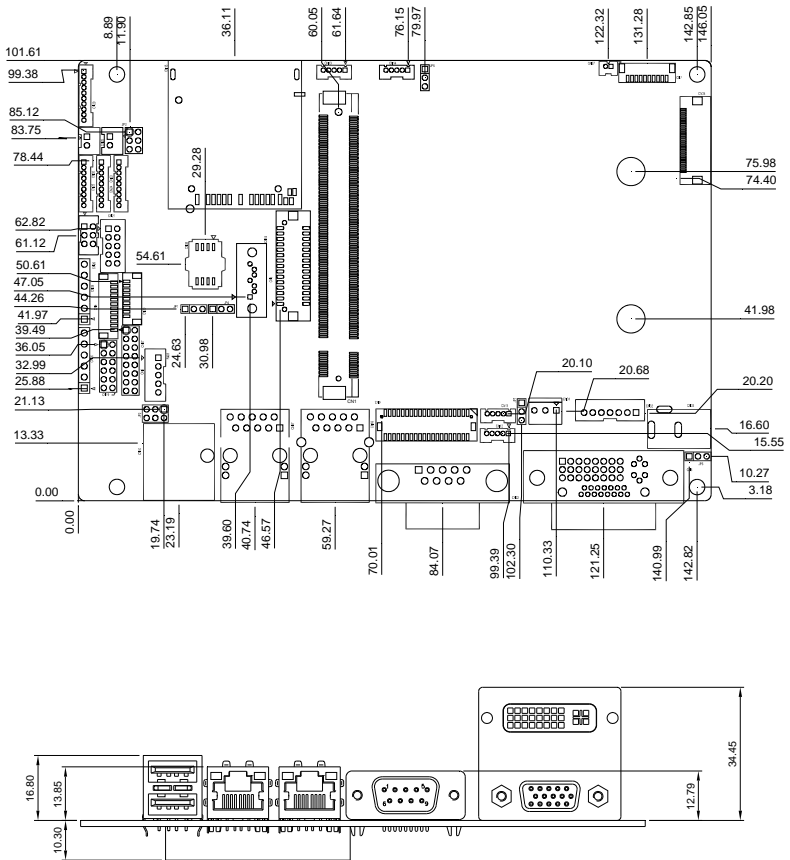
Warning!

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.

Caution!

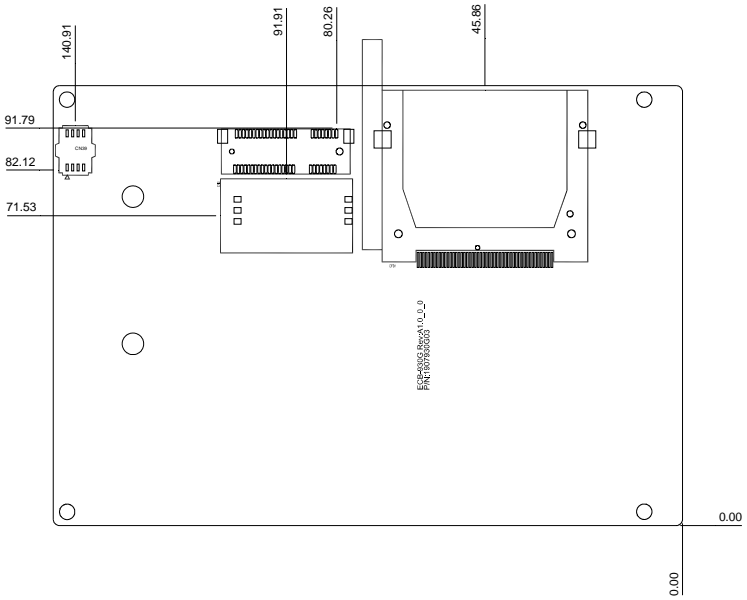
Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not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

Mechanical Drawing



Q7 Carrier Board

ECB-930G



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:

Label	Function
JP1	LVDS LCD Voltage Selection
JP2	LVDS LCD Backlight Power Selection/ Brightness control Selection
JP3	COM2 +12V/+5V/RING Selection
JP4	SPI BIOS Selection
JP5	CMOS Clear Selection
JP6	EC Enable Selection
JP7	FAN Power Selection

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:

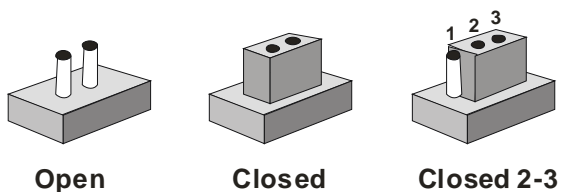
Label	Function
CN1	MXM Connector
CN2	Mini card Connector
CN3	SIM Connector
CN4	LPC Connector
CN5	LVDS LCD Connector
CN6	LVDS LCD Backlight Connector
CN7	VGA Connector
CN8	VGA+DVI Connector
CN9	SDVO Connector
CN10	USB Connector
CN11	USB Connector
CN12	USB Connector
CN13	USB Connector
CN14	USB Connector
CN15	SD Connector
CN16	Ethernet Connector1
CN17	Ethernet Connector2
CN18	SATA Connector
CN19	Front Panel Connector
CN20	Touch screen Connector

CN21	Digital I/O Connector
CN22	COM1 Connector
CN23	COM2 Connector
CN24	COM3 Connector
CN25	COM4 Connector
CN26	Keyboard/mouse Connector
CN27	CMOS Battery wafer
CN28	Audio Right channel speaker out Connector
CN29	Audio Connector
CN30	Audio Left channel speaker out Connector
CN31	System FAN Connector
CN32	Battery Connector
CN33	DC IN Connector
CN34	EC Download Connector
CN35	CPLD Download header1
CN36	CPLD Download header2
CN37	Feature Connector
CN38	SPI BIOS Socket
CN39	EC EEPROM Socket

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.



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.

LVDS LCD voltage Selection (JP1)

JP1	Function
1-2	+5V
2-3	+3.3V (Default)

LVDS LCD Backlight Power Selection/ Brightness Control Selection (JP2)

JP2	Function
1-3	+12V (Default)
3-5	+5V
2-4	LVDS Brightness Voltage Control (Default)
4-6	LVDS Brightness PWM Control

COM2 +12V/+5V/RING Selection (JP3)

JP3	Function
1-2	+12V
3-4	+5V
5-6	RING (Default)

SPI BIOS Selection (JP4)

JP4	Function
1-2	CPU Module SPI BIOS (Default)
2-3	Carrier board SPI BIOS

CMOS Clear Selection (JP5)

JP5	Function
1-2	Normal (Default)
2-3	Clear CMOS

EC Enable Selection (JP6)

JP6	Function
1-2	EC Disable
2-3	EC Enable (Default)

FAN power Selection (JP7)

JP7	Function
1-2	+12V (Default)
2-3	+5V

MXM Connector (CN1)

230-pin MXM Connector

Mini card Connector (CN2)

Standard Mini Card Connector

SIM Connector (CN3)

Standard SIM Connector

LPC Connector (CN4)

Pin	Signal
1	LPC AD0
2	LPC AD1
3	LPC AD2
4	LPC AD3
5	+3.3V
6	LPC FRAME#

7	RESET#
8	GND
9	LPC Clock
10	LPC DRQ
11	NC
12	SERIRQ

LVDS Connector (CN5)

Pin	Signal	Pin	Signal
1	Backlight enable	2	Backlight Control
3	LVDS Power	4	GND
5	TX1CLK#	6	TX1CLK
7	LVDS Power	8	GND
9	TX1OUT#0	10	TX1OUT0
11	TX1OUT#1	12	TX1OUT1
13	TX1OUT#2	14	TX1OUT2
15	TX1OUT#3	16	TX1OUT3
17	LVDS_DID_DAT	18	LVDS_DID_CLK
19	TX2OUT#0	20	TX2OUT0
21	TX2OUT#1	22	TX2OUT1
23	TX2OUT#2	24	TX2OUT2
25	TX2OUT#3	26	TX2OUT3
27	LVDS Power	28	GND
29	TX2CLK#	30	TX2CLK

LVDS LCD Backlight Connector (CN6)

Pin	Signal
1	Backlight power

2	Backlight Brightness control (Decided by JP2)
3	GND
4	GND
5	Backlight Enable

VGA Connector (CN7)

Pin	Signal
1	VGA_R
2	VGA_G
3	VGA_B
4	GND
5	DDC_SMBCLK
6	DDC_SMBDAT
7	VGA_HSYNC
8	VGA_VSYNC
9	SMI#
10	SCI

CRT+DVI Connector (CN8)

Standard CRT+DVI connector

SDVO Connector (CN9)

Pin	Signal	Pin	Signal
1	SDVO_CTRL_CLK	2	SDVO_RST#
3	SDVO_CTRL_DAT	4	NC
5	NC	6	NC
7	GND	8	GND
9	SDVO_RED-	10	SDVO_FLDSTALL-

Q7 Carrier Board**ECB-930G**

11	SDVO_RED+	12	SDVO_FLDSTALL+
13	GND	14	GND
15	SDVO_BLUE-	16	SDVO_INT-
17	SDVO_BLUE+	18	SDVO_INT+
19	GND	20	GND
21	SDVO_GREEN-	22	SDVO_BCLK-
23	SDVO_GREEN+	24	SDVO_BCLK+
25	GND	26	GND
27	+2.5V	28	+5V
29	+2.5V	30	+5V
31	+2.5V	32	GND
33	GND	34	+12V
35	+3.3V	36	+12V
37	+3.3V	38	GND
39	GND	40	GND

USB Connector (CN10, CN11, CN12, CN13, CN14)

Standard USB connector

SD Connector (CN15)

Standard SD connector

LAN Connector (CN16, CN17)

Standard RJ-45 LAN connector

CN16: The signals are from Q7.

CN17: The signals are from 82574L.

SATA Connector (CN18)

Standard SATA connector

Front Panel Connector (CN19)

Pin	Signal	Pin	Signal
1	GND	2	Power button
3	GND	4	Reset button
5	GND	6	+5V Power LED
7	CF/SATA LED	8	+3.3V pull-high 330R
9	ACIN_LED-	10	ACIN_LED+
11	BAT_LED-	12	BAT_LED+

Touch Screen Connector (CN20)

Pin	8-wire	5-wire	4-wire
1	GND	GND	GND
2	Top Excite	UL (Y)	Up
3	Bottom Excite	UR (H)	Bottom
4	Left Excite	LL (L)	Left
5	Right Excite	LR (X)	Right
6	Top Sense	Sense	NC
7	Bottom Sense	NC	NC
8	Left Sense	NC	NC
9	Right Sense	NC	NC

Digital I/O Connector (CN21)

For SMSC Address:

Pin	Signal	Bit
1	DIO_1	0
2	DIO_2	1
3	DIO_3	2
4	DIO_4	3
5	DIO_5	4
6	DIO_6	5
7	DIO_7	6
8	DIO_8	7
9	+5V	
10	GND	

For Winbond Address:

Pin	Signal	Bit
1	DIO_1	0
2	DIO_2	1
3	DIO_3	2
4	DIO_4	3
5	DIO_5	4
6	DIO_6	5
7	DIO_7	6
8	DIO_8	7
9	+5V	
10	GND	

COM1 Connector (CN22)

Pin	Signal	Pin	Signal
1	DCD1	2	RXD1
3	TXD1	4	DTR1
5	GND	6	DSR1
7	RTS1	8	CTS1
9	RI1		

COM2 Connector (CN23)

Pin	Signal
1	DCD2
2	DSR2
3	RXD2
4	RTS2
5	TXD2
6	CTS2
7	DTR2
8	RI2
9	GND

COM3 Connector (CN24)

Pin	Signal
1	DCD3
2	DSR3
3	RXD3
4	RTS3
5	TXD3

6	CTS3
7	DTR3
8	RI3
9	GND

COM4 Connector (CN25)

Pin	Signal
1	DCD4
2	DSR4
3	RXD4
4	RTS4
5	TXD4
6	CTS4
7	DTR4
8	RI4
9	GND

Keyboard, Mouse Connector (CN26)

Pin	Signal	Pin	Signal
1	KDAT	2	KCLK
3	GND	4	+5V_DUAL with fuse
5	MDAT	6	MCLK

CMOS Battery Connector (CN27)

Pin	Signal
1	Battery power (+3.0V)
2	GND

Audio Right Channel Speaker Out Connector (CN28)

Pin	Signal
1	Speaker Right -
2	Speaker Right +

Audio Connector (CN29)

Pin	Signal
1	MIC Left
2	MIC Right
3	Audio GND
4	Line-in Left
5	Line-in Right
6	Audio GND
7	Line-out Left
8	Audio GND
9	Line-out Right
10	NC

Audio Left Channel Speaker Out Connector (CN30)

Pin	Signal
1	Speaker Left -
2	Speaker Left +

Fan Connector (CN31)

Pin	Signal
1	GND
2	FAN Power (decided by JP7)

3	FAN_TAC
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Battery Connector (CN32)

Pin	Signal
1	VCC_BAT
2	VCC_BAT
3	SMBUS_SCL
4	SMBUS_DAT
5	CH_TS
6	GND
7	GND

DC-IN Connector (CN33)

Pin	Signal
1	GND
2	GND
3	DC-IN Power

EC Download Connector (CN34)

Standard EC download connector

CPLD Download Connector1 (CN35)

For CPU Module

CPLD Download Connector1 (CN36)

For ECB-930G

Feature Connector (CN37)

Pin	Signal	Pin	Signal
1	LID_BTN#	2	SCL
3	GND	4	SDA
5	SLP_BTN#	6	THRM#
7	LVDS_BLC_CLK	8	THRM_TRIP#
9	LVDS_BLC_DAT	10	SDIO_PWR#
11	SUS_STAT#	12	SDIO_LED
13	WDOUT	14	WDTRIG#
15	SENSE	16	Y-

SPI BIOS Socket (CN38)

Optional SPI BIOS Socket

EC EEPROM Socket (CN39)

EC EEPROM Socket

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	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
<p>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。</p> <p>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。</p> <p>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。</p>						