

Chapter

1

**Quick  
Installation  
Guide**

## 1.1 Safety Precaution

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**Warning!**



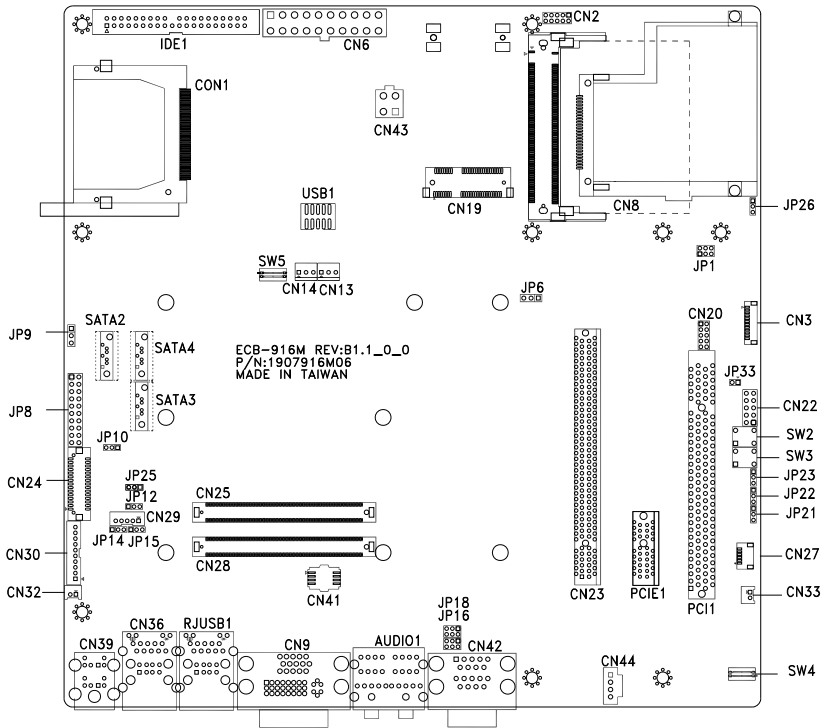
*Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.*

**Caution!**

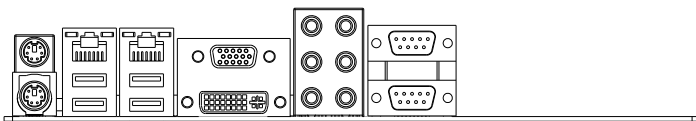


*Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not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

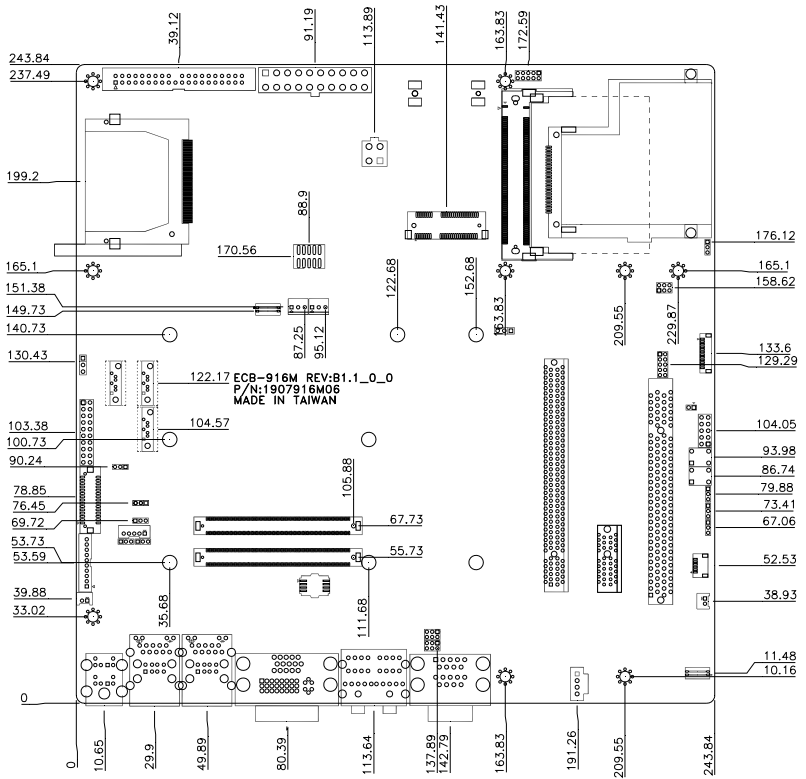
## 1.2 Location of Connectors and Jumpers



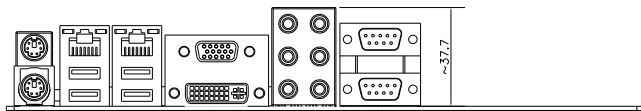
Component side



### 1.3 Mechanical Drawing



Component side



## 1.4 List of Jumpers

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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:

<b>Label</b>	<b>Function</b>
JP1	Auto Power Button Selection and Auto Reset Button Selection
JP6	BIOS Write Protection Selection
JP8	Jumper for Testing & Debug
JP9	Clear CMOS Selection
JP11	Backlight Enable Level Selection
JP12	LVDS Voltage Selection
JP15	Backlight Power Selection
JP16	COM1 +12V/+5V/RING Selection
JP18	COM2 +12V/+5V/RING Selection
JP19	Super I/O Enable/Disable Selection
JP21	COM2 RS-232/422/485 Selection
JP22	COM2 RS-232/422/485 Selection
JP23	COM2 RS-232/422/485 Selection
JP33	AT/ATX Selection

## 1.5 List of Connectors

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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:

<b>Label</b>	<b>Function</b>
CN2	Digital I/O Connector
CN3	LPC Connector
CN6	ATX Power Connector
CN8	Express Card Connector
CN9	DVI/VGA
CN13	FAN Connector
CN14	FAN Connector
CN19	Mini Card Connector
CN22	Front Panel Connector
CN23	PCI-Express [x16] Graphic Connector
CN24	LVDS Connector
CN25	COM-Express Connector (Row C & D)
CN27	Lattice Download Connector
CN28	COM Express Connector (Row A & B)
CN29	LCD Backlight Power Connector
CN30	Front Panel Control
CN32	Speaker Connector
CN33	Speaker Connector

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CN36	Dual USB Ports, LAN Connector
CN39	Keyboard (Down), Mouse (Up) Connector
CN41	SPI BIOS
CN42	DUAL COM PORT
CN44	CD-IN
AUDIO1	Audio Connector
RJUSB1	Dual USB Ports, LAN Connector
PCI1	PCI Slot
PCIE1	PCI-Express[x1] Slot
MPCI1	Mini PCI Slot
SATA 2, 3, 4	SATA Connectors
CON1	CompactFlash™ Connector
IDE1	IDE Connector
SW2	Power Button Switch
SW3	Hardware Reset Switch
SW4	BIOS Selection
SW5	PCIEX16 VS, DVI Selection

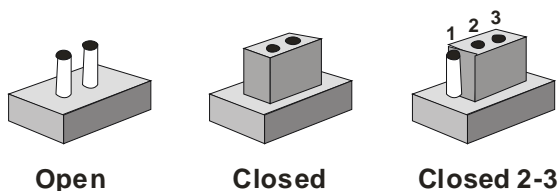
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## 1.6 Setting Jumpers

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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.



## 1.7 Auto Power Button and Auto Reset Button Selection (JP1)

JP1	Function
2-4	Enable Auto Reset Button
4-6	Disable Auto Reset Button (Default)
1-3	Enable Auto Power Button
3-5	Disable Auto Power Button (Default)

## 1.8 BIOS Write Protection Selection (JP6)

JP6	Function
1-2	Disable Write Protection (Default)
2-3	Enable Write Protection

## 1.9 Jumper for Testing and Debug (JP8)

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 Clear CMOS Selection (JP9)

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JP9	Function
2-3	Clear CMOS
1-2	Normal (Default)

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### 1.11 Backlight Enable Level Selection (JP11)

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JP11	Function
1-2	+3.3V Control for backlight (Default)
2-3	+5V Control for backlight

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### 1.12 LVDS Voltage Selection (JP12)

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JP12	Function
1-2	+5V Power for LVDS
2-3	+3.3V Power for LVDS (Default)

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### 1.13 Backlight Power Selection (JP15)

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JP15	Function
1-2	+5V Power for Backlight (Default)
2-3	+12V Power for Backlight

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### 1.14 COM1 +12V/+5V/Ring Selection (JP16)

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JP16	Function
1-2	+12V
3-4	+5V
5-6	Ring (Default)

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### 1.15 COM2 +12V/+5V/Ring Selection (JP18)

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JP18	Function
1-2	+12V
3-4	+5V
5-6	Ring (Default)

### 1.16 Super I/O Enable and Disable Selection (JP19)

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JP19	Function
1-2	Enable (Default)
Open	Disable

### 1.17 COM2 RS-232/422/485 Selection (JP21, JP22, JP23)

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JP21	Function
1-2	RS-232 (Default)
2-3	RS-422
2-3	RS-485

JP22	Function
1-2	RS-232 (Default)
1-2	RS-422
2-3	RS-485

JP23	Function
1-2	RS-232 (Default)
2-3	RS-422

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1-2	RS-485
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### 1.18 AT/ATX Selection (JP33)

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JP33	Function
1-2	AT
Open	ATX (Default)

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### 1.19 Digital I/O Connector (CN2)

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

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### 1.20 LPC Connector (CN3)

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Pin	Signal
1	LPC_AD0
2	LPC_AD1
3	LPC_AD2
4	LPC_AD3
5	3VSB
6	LPC_FRAME#
7	LPC_RST#
8	GND

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9	LPC_CLK
10	LPC_PME#
11	LPC_SERIRQ
12	5VSB

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### 1.21 ATX Power Connector (CN6)

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

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### 1.22 Express Card Connector (CN8)

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Pin	Signal	Pin	Signal
1	GND	2	USB D-
3	USB D+	4	CPUSB#
5	NC	6	NC
7	SMBCLK	8	SMBDAT

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9	+1.5V	10	+1.5V
11	PCIE_WAKE#	12	+3.3VAUX

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### 1.23 DVI/VGA Connector (CN9)

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Standard DVI/VGA output

### 1.24 FAN Connector (CN13, CN14)

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Pin	Signal
1	GND
2	FAN Power
3	FAN_TAC

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### 1.25 Mini Card Connector (CN19)

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Standard Mini Card Connector

### 1.26 Front Panel Connector (CN22)

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

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### 1.27 PCI-Express[x16] Graphic Connector (CN23)

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Standard PCI-Express[x16] Graphic Connector

### 1.28 LVDS Connector (CN24)

Pin	Signal	Pin	Signal
1	Backlight enable	2	NC
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	DDC_DAT	18	DDC_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

### 1.29 COM Express Connector (CN25)

Standard COM Express Connector (Row C & D)

### 1.30 Lattice Download Connector (CN27)

Pin	Signal
1	+3.3V
2	TDO

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3	TDI
4	NC
5	NC
6	TMS
7	GND
8	TCK

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### 1.31 COM Express Connector (CN28)

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Standard COM Express Connector (Row A & B)

### 1.32 LCD Backlight Power Connector (CN29)

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Pin	Signal
1	BLVCC
2	Brightness level
3	GND
4	GND
5	Backlight enable

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### 1.33 Front Panel Control (CN30)

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Pin	Signal
1	+5V
2	Power button
3	LCD brightness+
4	LCD brightness-
5	+3.3V

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6	Volume+
7	Volume-
8	GND
9	NC
10	NC

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### 1.34 Speaker Connector (CN32, CN33)

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Pin	Signal
1	Speaker +
2	Speaker -

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### 1.35 USB, LAN Connector (CN36)

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#### LAN Connector

Pin	Signal	Pin	Signal
1	NC	2	TD+
3	TD-	4	RD+
5	RD-	6	NC
7	NC	8	NC
9	NC	10	NC
11	LINK_LED#	12	ACT_LED#
13	GND	14	S100LED

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#### USB Connector

Pin	Signal	Pin	Signal
19	USB Power	23	USB Power

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20	USBD0-	25	USBD1-
21	USBD0+	27	USBD1+
22	GND	29	GND

### 1.36 Keyboard, Mouse Connector (CN39)

Pin	Signal	Pin	Signal
1	KDAT	2	MDAT
3	GND	4	+5V with fuse
5	KCLK	6	MCLK
7	MDAT	8	NC
9	GND	10	+5V with fuse
11	MCLK	12	NC

### 1.37 SPI BIOS Connector (CN41)

Pin	Signal	Pin	Signal
1	SPI_CE#	2	SPI_SO
3	SPI_WP#	4	GND
5	SPI_SI	6	SPI_CLK
7	HOLD#	8	3VSB

### 1.38 Dual COM Connector (CN42)

#### COM1

Pin	Signal	Pin	Signal
1	DCD1	2	RXD1

3	TXD1	4	DTR1
5	GND	6	DSR1
7	RTS1	8	CTS1
9	+12V/+5V/RING	10	NC

**COM2**

Pin	Signal	Pin	Signal
1	DCD2	2	RXD2
3	TXD2	4	DTR2
5	GND	6	DSR2
7	RTS2	8	CTS2
9	+12V/+5V/RING	10	NC

**1.39 CD-IN Header (CN44)**

Pin	Signal
1	CD_L
2	CD_GND
3	CD_GND
4	CD-R

**1.40 Audio Connector (AUDIO1)**

Color	Signal
Blue	Line In
Green	Line Out
Pink	Mic In

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Orange	CEN/LFE
Black	Surround
Gray	Surround Side

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## 1.41 USB, LAN Connector (RJUSB1)

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### LAN Connector

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Pin	Signal	Pin	Signal
1	NC	2	TD+
3	TD-	4	RD+
5	RD-	6	NC
7	NC	8	NC
9	NC	10	NC
11	LINK_LED#	12	ACT_LED#
13	GND	14	S100LED

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### USB Connector

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Pin	Signal	Pin	Signal
19	USB Power	23	USB Power
20	USBD0-	25	USBD1-
21	USBD0+	27	USBD1+
22	GND	29	GND

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## 1.42 PCI Slot (PCI1)

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Standard PCI Slot

### 1.43 PCI-Express[x1] Slot (PCIE1)

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Standard PCI-Express[x1] Slot

### 1.44 Mini-PCI Slot (MPC11)

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Standard Mini-PCI Slot

### 1.45 SATA Connector (SATA 2, 3, 4)

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Standard SATA Connector

### 1.46 CompactFlash™ Connector (CON1)

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Standard CompactFlash™ Connector

### 1.47 IDE Connector (IDE1)

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Standard IDE Connector

### 1.48 Power Button Switch (SW2)

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Power Button Switch

### 1.49 Hardware Reset Switch (SW3)

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Hardware Reset Switch

### 1.50 BIOS Selection (SW4)

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BIOS Selection

SW4 (1-2)	SW4(3-4)	Selection
OFF	OFF	Module Board SPI
OFF	ON	Carrier Board LPC
ON	OFF	Carrier Board SPI
ON	ON	Module Board SPI

### 1.51 PCIEX16 VS, DVI Selection (SW5)

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	ON	OFF
1	DVI Function	NC
2	PCIEX16 Function (Default)	NC

## 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><b>O:</b> 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><b>X:</b> 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>						