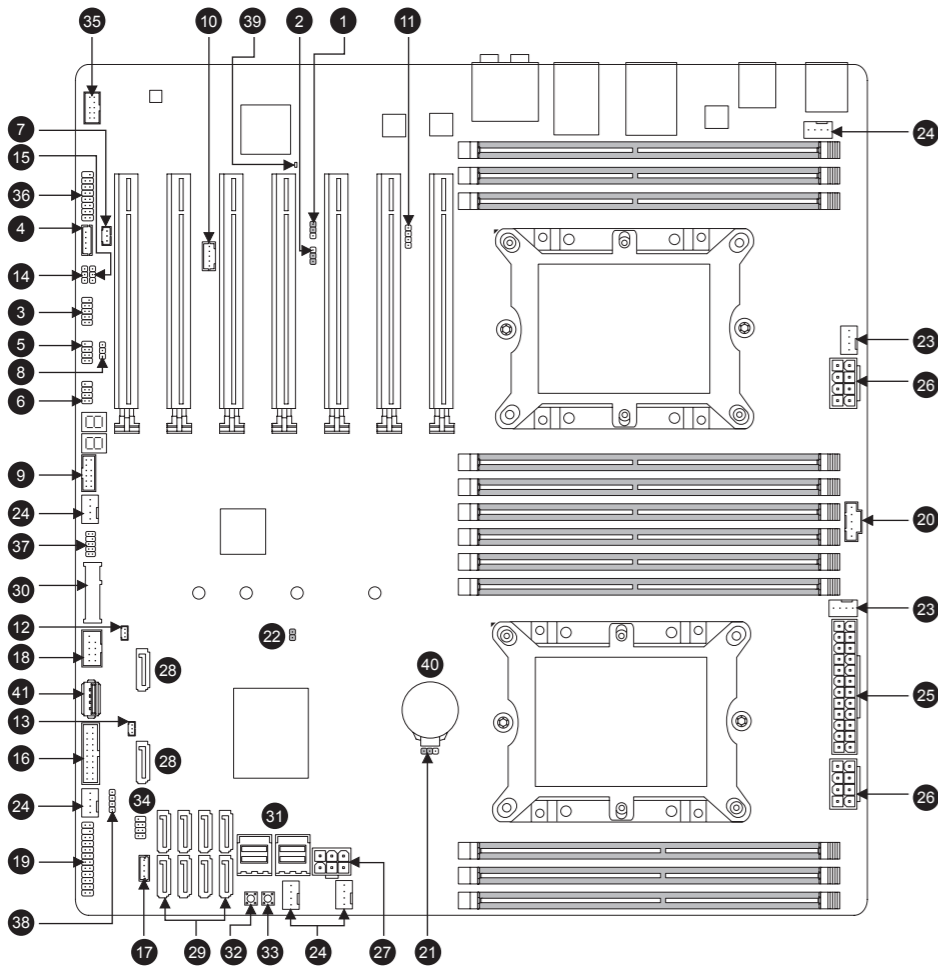


# GA-C621-WD12(-IPMI) Quick Installation Guide/ 快速安装指南



1	BMC_VGA *	22	CI
2	BMC_WATCHD *	23	CPU_FAN1~2
3	COM	24	SYS_FAN1~5
4	SMB_IPMB *	25	ATX
5	I_SGPIIO1	26	ATX8P_1~2
6	I_SGPIIO2	27	ATX12V 6P
7	WOL	28	S-SATA0~1
8	SMB	29	I-SATA0~7
9	TPM	30	PCIEX4_M2
10	TBT	31	U2_1~2
11	BMC_UART *	32	PWR_SW
12	SATA_DOM0	33	RST_SW
13	SATA_DOM1	34	S_SGPIIO
14	VRM_SCL	35	F_AUDIO
15	VRM_SDA	36	VGA *
16	FUSB30	37	SMB_VMD
17	VROC	38	SPEAKER
18	FUSB2	39	BMC_LED2 *
19	F_PANEL	40	BAT
20	PMBUS	41	USB 3.0
21	CLR_CMOS		

\* Only for the GA-C621-WD12-IPMI.

## Jumpers, Connectors, and LEDs/ 跳线, 联接器, 指示灯

### 1) BMC\_VGA \*

Pin	Definition
1-2	Enable (Default)
2-3	Disable

### 2) BMC\_WATCHD \*

Pin	Definition
1-2	Enable
2-3	Disable (Default)

### 3) COM

Pin	Definition	Pin	Definition
1	NDCC-	2	NSIN
3	NSOUT	4	NDTR-
5	GND	6	NDSR-
7	NRTS-	8	NCTS-
9	NRI-	10	-

### 4) SMB\_IPMB \*

Pin	Definition
1	SMB_DATA
2	GND
3	SMB_CLK
4	NA

### 5) I\_SGPIIO1 (For I-SATA0~3) 6) I\_SGPIIO2 (For I-SATA4~7)

Pin	Definition	Pin	Definition
1	NA	2	-
3	SATA_DATA	4	GND
5	GND	6	SATA_LOAD
7	NA	8	SATA_CLK

### 7) WOL (Wake On Lan)

Pin	Definition
1	Power (5V)_AUX
2	GND
3	WAKE_EN

### 8) SMB

Pin	Definition
1	SMB_DATA
2	GND
3	SMB_CLK

### 9) TPM (Trusted Platform Module/Port 80 Header)

Pin	Definition	Pin	Definition
1	LPC_IO0	2	Power (3.3V)
3	LPC_IO1	4	-
5	LPC_IO2	6	TPM_CLK
7	LPC_IO3	8	GND
9	LFRAME#	10	NA
11	SERIRQ	12	TPM_RST

### 10) TBT

Pin	Definition
1	FORCE_POWER
2	SCI_EVENT
3	SLP_S3
4	SLP_S5
5	GND

### 11) BMC\_UART \*

Pin	Definition
1	BMC_UART_TXD
2	GND
3	BMC_UART_RXD
4	Power (5V)

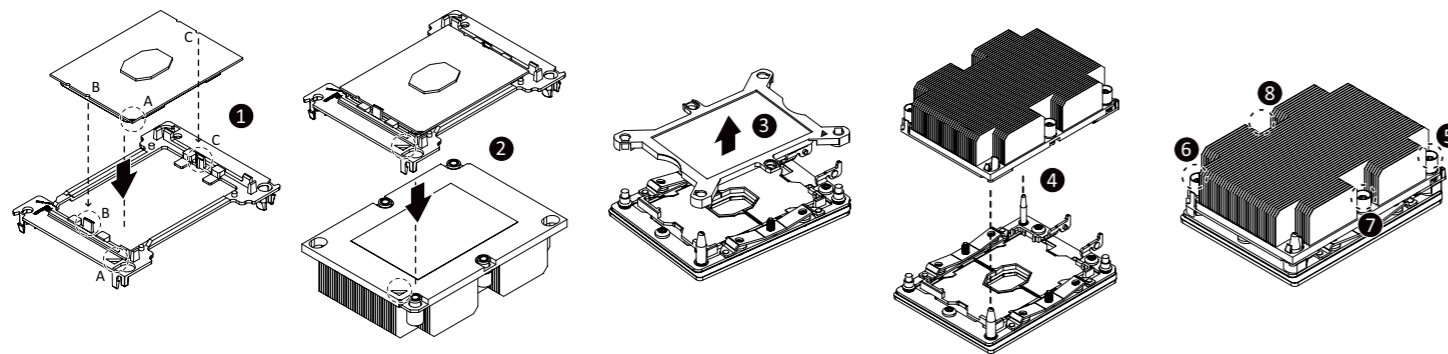
### 12) SATA\_DOM0 (SATA DOM0 Power Header) 13) SATA\_DOM1 (SATA DOM1 Power Header)

Pin	Definition
1	Power (5V)
2	GND
3	NA

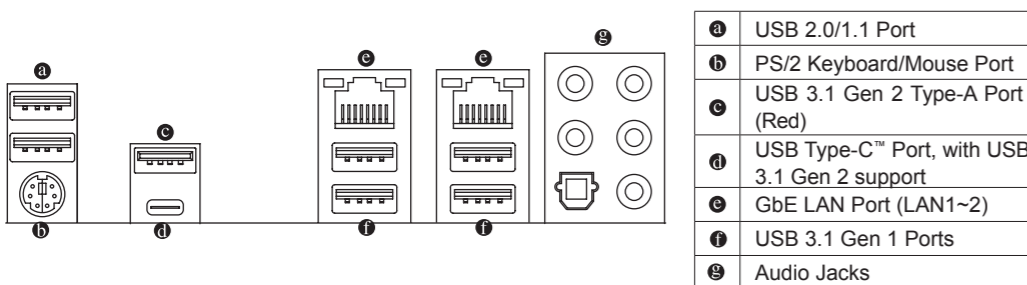
### 14) VRM\_SCL (For VRM SMB\_CLK) 15) VRM\_SDA (For VRM SMB\_DATA)

Pin	Definition
1-2	SMB to PCH
2-3	SMB to BMC *

## Installing the CPU and Heatsink/ 安装处理器与散热器



## Back Panel Connectors/ 后窗接口



### GbE LAN Port LEDs:

LED	State	Description
Link (Right)	Solid Green	100 Mbps
	Solid Amber	1Gbps
Activity (Left)	Blinking Yellow	Active



<b>Box Contents</b>	<input checked="" type="checkbox"/> GA-C621-WD12 or GA-C621-WD12-IPMI motherboard	<input checked="" type="checkbox"/> I/O Shield
	<input checked="" type="checkbox"/> Motherboard driver disk	<input checked="" type="checkbox"/> One VGA bracket *
	<input checked="" type="checkbox"/> Quick Installation Guide	<input checked="" type="checkbox"/> One COM port bracket *
	<input checked="" type="checkbox"/> Ten SATA cables	

### 16) FUSB30

Pin	Definition	Pin	Definition
1	VBUS	11	D2+
2	SSRX1-	12	D2-
3	SSRX1+	13	GND
4	GND	14	SSTX2+
5	SSTX1-	15	SSTX2-
6	SSTX1+	16	GND
7	GND	17	SSRX2+
8	D1-	18	SSRX2-
9	D1+	19	VBUS
10	NC	20	-

### 17) VROC (RAID Key for CPU NVMe SSD)

Pin	Definition
1	GND
2	Power (3.3V)_AUX
3	GND
4	PCH RAID KEY

### 18) FUSB2

Pin	Definition	Pin	Definition
1	Power (5V)	2	Power (5V)
3	USB DX-	4	USB DY-
5	USB DX+	6	USB DY+
7	GND	8	GND
9	-	10	NC

### 20) PMBUS (Power supply I2C Connector)

Pin	Definition
1	SMB_CLK
2	SMB_DATA
3	PSU_ALERT
4	GND
5	Power (3.3V)

### 21) CLR\_CMOS

Pin	Definition
1-2	NA (Default)
2-3	Clear CMOS

### 19) F\_PANEL

Pin	Definition	Pin	Definition
1	Power LED+	2	5V Standby
3	-	4	ID LED+
5	Power LED-	6	ID LED-
7	HDD LED+	8	System Status LED+
9	HDD LED1	10	System Status LED-
11	Power Button	12	LAN1 Active LED+
13	GND	14	LAN1 Link LED-
15	Reset Button	16	SMBus Data
17	GND	18	SMBus Clock
19	ID Button	20	Case Open
21	GND	22	LAN2 Active LED+
23	NMI Switch	24	LAN2 Link LED-

### 22) CI

Pin	Definition
1	Intrusion Input
2	GND

### 23) CPU\_FAN1/CPU\_FAN2

Pin	Definition
1	GND
2	Power (12V)
3	FAN_TACH
4	FAN_PWM

### 24) SYS\_FAN1~5

Pin	Definition
1	GND
2	Power (12V)
3	FAN_TACH
4	FAN_PWM

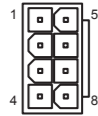
### 25) ATX (2x12 Main Power Connector)

Pin	Definition
1	GND
2	Power (12V)
3	FAN_TACH
4	FAN_PWM

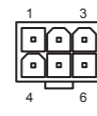
\* Only for the GA-C621-WD12-IPMI.

# Jumpers, Connectors, and LEDs/ 跳线, 连接器, 指示灯

**26) ATX8P\_1~2**  
(2x4, 12V Power Connectors)



**27) ATX12V\_6P**  
(2x3, 12V Power Connectors)



**28) S-SATA0~1** (SATA 6Gb/s Connectors, Supported by the Intel® PCH)



**29) I-SATA0~7** (SATA 6Gb/s Connectors, Supported by the Intel® PCH)



**30) PCIEX4\_M2**  
(M.2 Socket 3 Connectors)



**31) U2\_1~2** (U2 Connector)



**32) PWR\_SW** (Power Button)  
**33) RST\_SW** (Reset Button)



**34) S\_SGPIO** (For S-SATA0~1)



Pin	Definition	Pin	Definition
1	NA	2	-
3	SATA_DATA	4	GND
5	GND	6	SATA_LOAD
7	NA	8	SATA_CLK

**35) F\_AUDIO**



**36) VGA** (Supported by the BMC) \*



Pin	Definition	Pin	Definition
1	VGA-R	2	VGA-G
3	VGA-B	4	NA
5	GND	6	GND
7	GND	8	GND
9	5V	10	GND
11	NA	12	DDC_DATA
13	H_SYNC	14	V_SYNC
15	DDC_CLK	16	-

**37) SMD\_VMD** (NVMe SMBUS Control Header)



Pin	Definition	Pin	Definition
1	SMB_CPU1_NVME_CLK	2	SMB_CPU1_NVME_DATA
3	GND	4	GND
5	SMB_CPU2_NVME_CLK	6	SMB_CPU2_NVME_DATA
7	GND	8	-
9	SMB_PCH_NVME_CLK	10	SMB_PCH_NVME_DATA

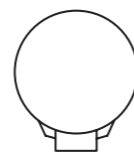
**38) SPEAKER** (Speaker Header)

Pin	Definition
1	5V
2	NA
3	NA
4	SPK-

**39) BMC\_LED2** (BMC Heartbeat LED) \*

State	Description
Off	BMC Normal

**40) BAT**



\* Only for the GA-C621-WD12-IPMI.

**41) USB 3.0** (USB 3.1 Gen 1 Connector)



**GIGABYTE™** Giga-Byte Technology B.V.  
Declaration of Conformity

We, Manufacturer/Importer,  
**Giga-Byte Technology B.V.**  
Address: **Steenoven 24, 5626 DK, Eindhoven, The Netherlands**  
Declare that the product  
Product Type: **Server board**  
Product Name: **GA-C621-WD12 - GA-C621-WD12-IPMI**  
conforms with the essential requirements of the following directives:

**EMC Directive 2014/53/EU:**  
 Conduction & Radiated Emissions: EN 55032:2012+AC:2013  
 Immunity: EN 55024:2010+A1:2015  
 Power-line harmonics: EN 61000-3-2:2014  
 Power-line flicker: EN 61000-3-3:2013

**Low Voltage Directive 2014/35/EU:**  
 Safety: EN60950-1:2006+A11:2009+A12:2011+A2:2013

**RoHS Directive 2011/65/EU:**  
 Restriction of use of certain substances in electronic equipment: This product does not contain any of the restricted substances listed in Annex II, in concentrations and applications banned by the directive.

**CE marking**

**CE**

Signature:

Date: **Jan. 31, 2019** Name: **Lien, Chih-Hsin**

Giga-Byte Technology B.V.  
Steenoven 24,  
5626 DK, Eindhoven, The Netherlands  
Tel: +31 40 2902088 Fax: +31 40 2902089 Email: info@gigabyte.nl  
VAT number: NL809693265B01

USD : CITIBANK TAIWAN SWIFT: CITITWXX Account: 5049120518  
EURO : CITIBANK AMSTERDAM SWIFT: CITNLD33 IBAN: NL76010326502850

設備名稱: 伺服器主機板 型號 (型式): GA-C621-WD12GA-C621-WD12-IPMI  
Equipment name Type designation (Type)

單元 Unit	限制物質及其化學符號 Restricted substances and its chemical symbols					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr <sup>6+</sup> )	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
PCB板PCB	○	○	○	○	○	○
結構件及風扇 Mechanical parts and Fan	-	○	○	○	○	○
晶片及其他主動零件 Chip and other Active components	-	○	○	○	○	○
連接器 Connectors	-	○	○	○	○	○
被動電子元件 Passive Components	-	○	○	○	○	○
焊接金屬 Soldering metal	○	○	○	○	○	○
助焊劑、散熱膏、標籤及其他 Flux, Solder Paste, Label and other Consumable Materials	○	○	○	○	○	○

備考1: "超出0.1 wt%"及"超出0.01 wt%"係指限制物質之百分比含量超出百分比含量基準值。  
Note 1: "Exceeding 0.1 wt%" and "exceeding 0.01 wt%" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.  
備考2: "○"係指該項限制物質之百分比含量未超出百分比含量基準值。  
Note 2: "○" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.  
備考3: "-"係指該項限制物質為排除項目。  
Note 3: "-" indicates that the restricted substance corresponds to the exemption.

## Federal Communications Commission Supplier's Declaration of Conformity

This supplier's declaration of conformity is hereby for  
Product: SERVER BOARD  
Model Number(s): GA-C621-WD12 - GA-C621-WD12-IPMI  
Brand/Trade: GIGABYTE

We declare under our sole responsibility that the above mentioned device has been tested and found in compliance with CFR 47 PART 15 REGULATION.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND,  
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

### Responsible Party – U.S. Contact Information

Company: G.B.T.INC.(U.S.A)  
Address: 17358 Railroad Street City of Industry, CA 91748

Country: U.S.A.  
Telephone No: (626)854-9338 / (626)854-9326  
Name: Eric Lu Title: General Manager  
Signature: Date: Jan. 31, 2019

### Representative of Responsible Party for SDoC

Company: G.B.T.INC.(U.S.A)  
Address: 17358 Railroad Street City of Industry, CA 91748

Country: U.S.A.  
Telephone No: (626)854-9338 / (626)854-9326  
Name: Eric Lu Title: General Manager  
Signature: Date: Jan. 31, 2019

## 关于符合中国《电子信息产品污染控制管理办法》的声明 Management Methods on Control of Pollution from Electronic Information Products (China RoHS Declaration)

### 产品中有毒物质的名称及含量 Hazardous Substances Table

部件名称 (Parts)	有毒物质 (Hazardous Substances)					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
PCB板 PCB	○	○	○	○	○	○
结构件及风扇 Mechanical parts and Fan	×	○	○	○	○	○
芯片及其他主动零件 Chip and other Active components	×	○	○	○	○	○
连接器 Connectors	×	○	○	○	○	○
被动电子元件 Passive Components	×	○	○	○	○	○
线材 Cables	○	○	○	○	○	○
焊接金属 Soldering metal	○	○	○	○	○	○
助焊剂、散料膏、标签及其他 Flux, Solder Paste, Label and other Consumable Materials	○	○	○	○	○	○

These tables are prepared in accordance with the provisions of SJT 11364  
本表格依据SJT 11364的规定编制。

○: The content of such hazardous substance in all homogeneous materials of such component is below the limit required by GB/T 26572.  
表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。

×: The content of such hazardous substance in a certain homogeneous material of such component is beyond the limit required by GB/T 26572.  
表示该有害物质在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

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## Contact Us

### GIGA-BYTE TECHNOLOGY CO., LTD.

Address: No.6, Baoqiang Rd., Xindian Dist., New Taipei City 231, Taiwan  
TEL: +886-2-8912-4000, FAX: +886-2-8912-4005  
Tech. and Non-Tech. Support (Sales/Marketing): <https://esupport.gigabyte.com>  
WEB address (English): <https://www.gigabyte.com>  
WEB address (Chinese): <https://www.gigabyte.com/tw>

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