

THUNDERBOLTS 5

安装指南

Rev. 1001



更详尽的产品相关信息，请连接至技嘉网站查询。

<https://www.gigabyte.cn/products/product-page.aspx?pid=9787>

技嘉为尽地球公民的责任，将减少纸张应用，且为减缓地球暖化效应，本产品包装材料都可回收再利用，技嘉与您一同为环保尽一份力！

更详尽的产品相关信息，请至技嘉网站查询。

产品规格

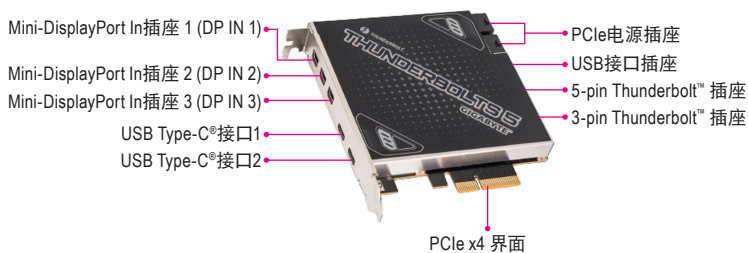
| | |
|------------|---|
| 芯片 | ◆ Intel® JHL9580 Thunderbolt™ 5 控制器 |
| 后方面板设备连接插座 | ◆ 2个Thunderbolt™ 5输出插座(Thunderbolt™ 5插座1/Thunderbolt™ 5插座2), 最高可支持到80 Gbps的双向传输速度以及120 Gbps的传输速度, 显示器可支持高达8K(7680x3840)@60 Hz的分辨率 ^(注一) * 支持DisplayPort 2.1版本、HDCP 2.2及HDR。 ^(注二) ◆ 3个Mini-DP输入插座(DP_IN1/DP_IN2/DP_IN3), 可支持高达8K(7680x3840)@60 Hz的分辨率 ^{(注一)(注三)} |
| 内接插座 | ◆ 2个6-pin PCIe电源插座 ◆ 1个USB 2.0插座 ◆ 1个5-pin Thunderbolt™ 插座 ◆ 1个3-pin Thunderbolt™ 插座 |
| 界面 | ◆ PCIe 4.0 界面(PCIe x4) |
| 数据传输速度 | ◆ 每个接口可支持至最高80 Gbps双向传输速度 |
| 支持操作系统 | ◆ 支持Windows 11 64-bit (版本24H2或以上) |
| 可兼容主板 | ◆ 请至技嘉网站查询有关支持的主板列表 |

(注一) 实际所支持的分辨率会依您所使用的显卡和连接线而有不同。

(注二) 若要启动DP 2.1功能(最高UHBR20), 必须使用特定连接线。

(注三) 随货附赠的Mini-DP连接线支持DP 1.4a 功能。

安装THUNDERBOLTS 5卡



Mini-DisplayPort连接线-3条



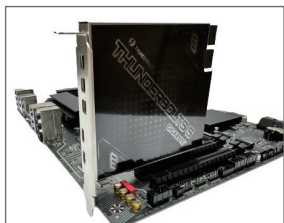
USB 2.0插座连接线-1条



Thunderbolt™ 插座连接线 (5-pin)-1条



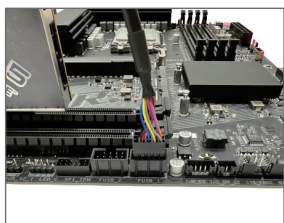
Thunderbolt™ 插座连接线 (3-pin)-1条



步骤1:
将THUNDERBOLTS 5卡安装至PCIEX4插槽。



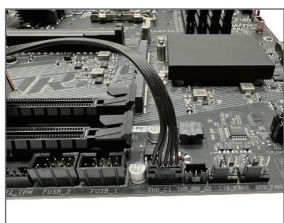
步骤2:
将USB扁平电缆的一端接至THUNDERBOLTS 5卡的USB接口插座。



步骤3:
再将USB扁平电缆的另一端接至主板的FUSB插座。



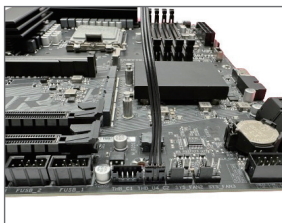
步骤4:
将Thunderbolt™ 插座连接线 (5-pin) 的一端连接至THUNDERBOLTS 5卡上的5-pin Thunderbolt™ 插座。



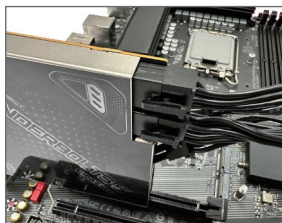
步骤5:
将另一端连接至主板上的Thunderbolt™ 扩展子卡插座。



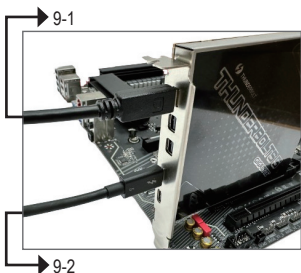
步骤6:
将Thunderbolt™ 插座连接线 (3-pin) 的一端连接至THUNDERBOLTS 5卡上的3-pin Thunderbolt™ 插座。



步骤7:
将另一端连接至主板上的Thunderbolt™扩展子卡插座。



步骤8:
将电源供应器上的电源接头连接至两组PCIe电源插座。



步骤9:
请依照下列步骤使用的Mini-DisplayPort连接线将您的显卡与THUNDERBOLTS 5卡做连接。

9-1: THUNDERBOLTS 5卡上的Mini-DisplayPort In插座需链接至显卡的DisplayPort。

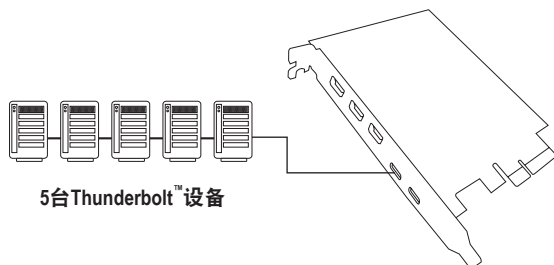
9-2: THUNDERBOLTS 5卡上的Thunderbolt™ 5插座则需链接至Thunderbolt™设备或DisplayPort屏幕。



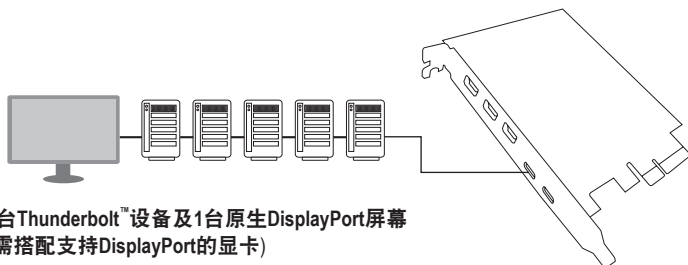
- 连接一台DP显示器时，请将Mini-DP连接线连接至DP IN插座1，并将显示器连接线连接至DP或Thunderbolt™ 5接口1。
- 连接两台DP显示器时，请将Mini-DP连接线连接至DP IN插座1，并将显示器连接线接至DP或Thunderbolt™ 5接口1；Mini-DP连接线连接至DP IN插座3，并将显示器连接线接至Thunderbolt™ 5接口2。
- 请确认您主板的BIOS为最新版本。

串接Thunderbolt™

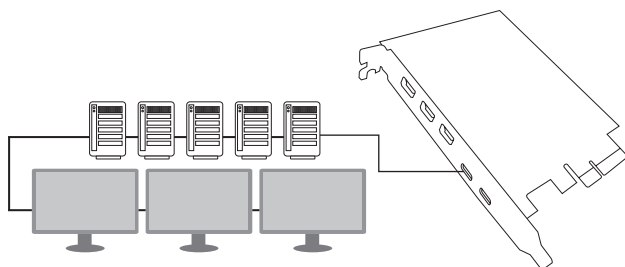
若要以菊链式串接方式串连Thunderbolt™设备，请参考下列说明。以下为单一接口的串接示意图。(请先确认要串接的设备皆具备Thunderbolt™输出及输入插座。)



5台Thunderbolt™设备



5台Thunderbolt™设备及1台原生DisplayPort屏幕
(需搭配支持DisplayPort的显卡)



5台Thunderbolt™设备及3台DisplayPort规格屏幕
(需搭配支持DisplayPort规格的显卡)

安装驱动程序

电脑重新启动后，请安装THUNDERBOLTS 5的驱动程序。将所附的驱动程序光盘插入并且依屏幕指示完成驱动程序的安装。

请至技嘉网站(<https://www.gigabyte.cn>)点选「支持」查询最新版的驱动程序。

Regulatory Notices

United States of America, Federal Communications Commission Statement

Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

Product Name: **PCI Express add-on Card**
Trade Name: **GIGABYTE**
Model Number: **THUNDERBOLTS 5**
Responsible Party – U.S. Contact Information: **G.B.T. Inc.**
Address: 17358 Railroad street, City Of Industry, CA91748
Tel.: 1-626-854-9338
Internet contact information: <https://www.gigabyte.com>

FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules, Subpart B, Unintentional Radiators. 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 undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications. This class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union (EU) CE Declaration of Conformity

This device complies with the following directives: Electromagnetic Compatibility Directive 2014/30/EU, Low-voltage Directive 2014/35/EU, RoHS directive (recast) 2011/65/EU & the 2015/863 Statement. This product has been tested and found to comply with all essential requirements of the Directives.

European Union (EU) RoHS (recast) Directive 2011/65/EU & the European Commission Delegated Directive (EU) 2015/863 Statement

GIGABYTE products have not intended to add and safe from hazardous substances (Cd, Pb, Hg, Cr+6, PBDE, PBB, DEHP, BBP, DBP and DIBP). The parts and components have been carefully selected to meet RoHS requirement. Moreover, we at GIGABYTE are continuing our efforts to develop products that do not use internationally banned toxic chemicals.

European Union (EU) Community Waste Electrical & Electronic Equipment (WEEE) Directive Statement

GIGABYTE will fulfill the national laws as interpreted from the 2012/19/EU WEEE (Waste Electrical and Electronic Equipment) (recast) directive. The WEEE Directive specifies the treatment, collection, recycling and disposal of electric and electronic devices and their components. Under the Directive, used equipment must be marked, collected separately, and disposed of properly.

WEEE Symbol Statement



The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

For more information about where you can drop off your waste equipment for recycling, please contact your local government office, your household waste disposal service or where you purchased the product for details of environmentally safe recycling.

End of Life Directives-Recycling



The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

Déclaration de Conformité aux Directives de l'Union européenne (UE)

Cet appareil portant la marque CE est conforme aux directives de l'UE suivantes: directive Compatibilité Electromagnétique 2014/30/UE, directive Basse Tension 2014/35/UE et directive RoHS II 2011/65/UE. La conformité à ces directives est évaluée sur la base des normes européennes harmonisées applicables.

European Union (EU) CE-Konformitätserklärung

Dieses Produkte mit CE-Kennzeichnung erfüllen folgenden EU-Richtlinien: EMV-Richtlinie 2014/30/EU, Niederspannungsrichtlinie 2014/30/EU und RoHS-Richtlinie 2011/65/EU erfüllt. Die Konformität mit diesen Richtlinien wird unter Verwendung der entsprechenden Standards zur Europäischen Normierung beurteilt.

CE declaração de conformidade

Este produto com a marcação CE estão em conformidade com das seguintes Diretivas UE: Diretiva Baixa Tensão 2014/35/UE; Diretiva CEM 2014/30/UE; Diretiva RSP 2011/65/UE. A conformidade com estas diretivas é verificada utilizando as normas europeias harmonizadas.

CE Declaración de conformidad

Este producto que llevan la marca CE cumplen con las siguientes Directivas de la Unión Europea: Directiva EMC (2014/30/UE), Directiva de bajo voltaje (2014/35/UE), Directiva RoHS (recast) (2011/65/UE). El cumplimiento de estas directivas se evalúa mediante las normas europeas armonizadas.

Dichiarazione di conformità CE

Questo prodotto è conforme alle seguenti direttive: Direttiva sulla compatibilità elettromagnetica 2014/30/UE, Direttiva sulla bassa tensione 2014/35/UE, Direttiva RoHS (rifusione) 2011/65/UE. Questo prodotto è stato testato e trovato conforme a tutti i requisiti essenziali delle Direttive.

关于符合中国《电器电子产品有害物质限制使用管理办法》的声明
 Administrative Measures for the Restricted Use of Hazardous Substances in Electrical and Electronic Products
 (China RoHS Declaration)

产品中有害物质的名称及含量
 Hazardous Substances Table

| 部件名称(Parts) | 有害物质(Hazardous Substances) | | | | | |
|---|----------------------------|-----------|-----------|-----------------|---------------|-----------------|
| | 铅 (Pb) | 汞 (Hg) | 镉 (Cd) | 六价铬 (Cr(VI)) | 多溴联苯 (PBB) | 多溴二苯醚 (PBDE) |
| 印刷电路板 PCB | ○ | ○ | ○ | ○ | ○ | ○ |
| 外壳 Shell | ○ | ○ | ○ | ○ | ○ | ○ |
| 芯片及其他主动零件 Chip and other Active components | × | ○ | ○ | ○ | ○ | ○ |
| 被动电子元件 Passive Components | × | ○ | ○ | ○ | ○ | ○ |
| 连接器 Connectors | × | ○ | ○ | ○ | ○ | ○ |
| 焊接金属 Soldering metal | ○ | ○ | ○ | ○ | ○ | ○ |
| 线材 Cables | ○ | ○ | ○ | ○ | ○ | ○ |
| These tables are prepared in accordance with the provisions of SJ/T 11364 本表格依据SJ/T 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. 表示该有害物质至少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。 | | | | | | |





• 技术服务联络窗口

技术服务专线：400-820-9608

服务时间：星期一~星期五：9:00~18:00（法定节/假日除外）

技术咨询网络服务：<https://esupport.gigabyte.com>

技嘉官方网址：<https://www.gigabyte.cn/>

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