

THUNDERBOLTS 5

安裝指南

Rev. 1001



更詳盡的產品相關訊息，請連結至技嘉網站查詢。

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

技嘉為善盡地球公民之責任，將減少紙張應用，且為減緩地球暖化效應，本產品包裝材料皆可回收再利用，技嘉與您一同為環保盡一份力！

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產品規格

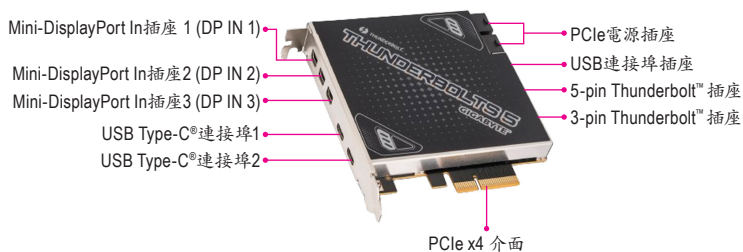
晶片	◆ Intel® JHL9580 Thunderbolt™ 5 控制器
後方面板裝置 連接插座	◆ 2個Thunderbolt™ 5輸出插座(Thunderbolt™ 5插座1/Thunderbolt™ 5插座2)，最高可支援80 Gbps的雙向傳輸速度以及120 Gbps的傳輸速度，螢幕可支援至最高8K(7680x3840)@60 Hz的解析度 ^(註一) * 支援DisplayPort 2.1版本、HDCP 2.2及HDR。 ^(註二) ◆ 3個Mini-DisplayPort輸入插座(DP_IN1/DP_IN2/DP_IN3)，可支援至最高8K(7680x3840)@60 Hz的解析度 ^{(註一)(註三)}
內接插座	◆ 2個6-pin PCIe電源插座 ◆ 1個USB 2.0/1.1插座 ◆ 1個5-pin Thunderbolt™ 插座 ◆ 1個3-pin Thunderbolt™ 插座
介面	◆ PCIe 4.0 介面(Pcie x4)
資料傳輸速度	◆ 每埠可支援至最高80 Gbps雙向傳輸速度
支援作業系統	◆ 支援Windows 11 64-bit (版本24H2或以上)
可相容主機板	◆ 請至技嘉網站查詢有關支援的主機板列表

(註一) 實際所支援的解析度會依您所使用的顯示卡和連接線而有不同。

(註二) 若要啟動DisplayPort 2.1功能(最高UHBR20)，必須使用特定連接線。

(註三) 隨貨附贈的Mini-DisplayPort連接線支援DisplayPort 1.4a 功能。

安裝THUNDERBOLTS 5卡



Mini-DisplayPort連接線-3條



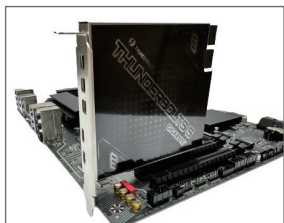
USB 2.0/1.1插座連接線-1條



Thunderbolt™ 插座連接線 (5-pin)-1條



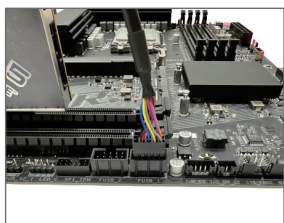
Thunderbolt™ 插座連接線 (3-pin)-1條



步驟1：
將THUNDERBOLTS 5卡安裝至PCIEX4插槽。



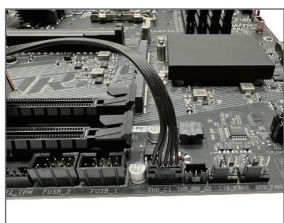
步驟2：
將USB排線的一端接至THUNDERBOLTS 5卡的USB連接埠插座。



步驟3：
再將USB排線的另一端接至主機板的FUSB插座。



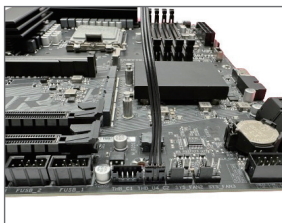
步驟4：
將Thunderbolt™插座連接線 (5-pin)的一端連接至THUNDERBOLTS 5卡上的5-pin Thunderbolt™插座。



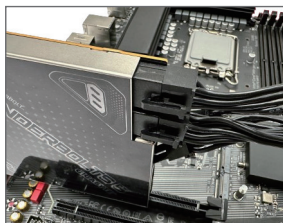
步驟5：
將另一端連接至主機板上的Thunderbolt™擴充子卡插座。



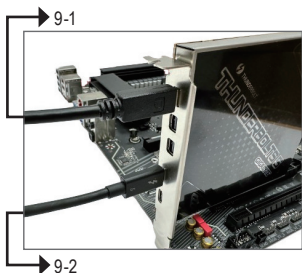
步驟6：
將Thunderbolt™插座連接線 (3-pin)的一端連接至THUNDERBOLTS 5卡上的3-pin Thunderbolt™插座。



步驟7：
將另一端連接至主機板上的Thunderbolt™擴充子卡插座。



步驟8：
將電源供應器上的電源接頭連接至兩組PCIe電源插座。



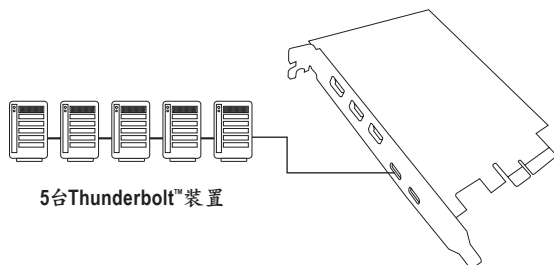
步驟9：
請依照下列步驟使用Mini-DisplayPort連接線將您的顯示卡與THUNDERBOLTS 5卡做連結。
9-1: THUNDERBOLTS 5卡上的Mini-DisplayPort In插座需連結至顯示卡的DisplayPort。
9-2: THUNDERBOLTS 5卡上的Thunderbolt™ 5插座則需連結至Thunderbolt™裝置或DisplayPort螢幕。



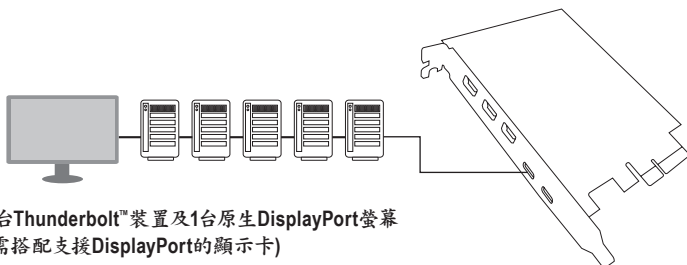
- 連接一台DisplayPort螢幕時，請將Mini-DisplayPort連接線連接至DP IN插座1，並將螢幕連接線接至DisplayPort或Thunderbolt™ 5插座1。
- 連接兩台DisplayPort螢幕時，請將Mini-DisplayPort連接線連接至DP IN插座1，並將螢幕連接線接至DisplayPort或Thunderbolt™ 5插座1；Mini-DisplayPort連接線連接至DP IN插座3，並將螢幕連接線接至Thunderbolt™ 5插座2。
- 請確認您主機板的BIOS為最新版本。

串接Thunderbolt™ 裝置

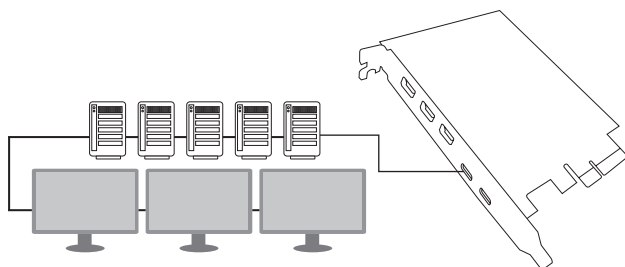
若要以菊鏈式串接方式串連Thunderbolt™裝置，請參考下列說明。以下為單一連接埠的串接示意圖。(請先確認要串接的裝置皆具備Thunderbolt™輸出及輸入插座。)



5台Thunderbolt™裝置



5台Thunderbolt™裝置及1台原生DisplayPort螢幕
(需搭配支援DisplayPort的顯示卡)



5台Thunderbolt™裝置及3台DisplayPort規格螢幕
(需搭配支援DisplayPort規格的顯示卡)

安裝驅動程式

電腦重新開機後，請安裝THUNDERBOLTS 5的驅動程式。將所附的驅動程式光碟片插入並且依螢幕指示完成驅動程式的安裝。

請至技嘉網站(<https://www.gigabyte.com/tw>)點選「服務/支援」查詢最新版的驅動程式。

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/EU), Directiva de bajo voltaje (2014/35/EU), Directiva RoHS (recast) (2011/65/EU). 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.

BSMI CNS15663 限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱：PCI Express add-on Card Equipment name		型號（型式）：THUNDERBOLTS 5 Type designation (Type)				
單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁶⁺)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
印刷電路板 PCB	○	○	○	○	○	○
外殼 Shell	○	○	○	○	○	○
晶片及其他主動零件 Chip and other Active components	-	○	○	○	○	○
被動電子元件 Passive Components	-	○	○	○	○	○
連接器 Connectors	-	○	○	○	○	○
焊接金屬 Soldering metal	○	○	○	○	○	○
線材 Cables	○	○	○	○	○	○
<p>備考1."超出0.1 wt %" 及 "超出0.01 wt %" 係指限用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.</p> <p>備考2."○"係指該項限用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.</p> <p>備考3."-"係指該項限用物質為排除項目。 Note 3: The "-" indicates that the restricted substance corresponds to the exemption.</p>						



D33006
RoHS



技嘉科技全球服務網

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星期六 上午 09:30 ~下午 05:30

技術/非技術問題支援：<https://esupport.gigabyte.com>

網址(英文)：<https://www.gigabyte.com>

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