

# THUNDERBOLTS 5

## Installation Guide

Rev. 1001



For more product details, please visit GIGABYTE's website.

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

GIGABYTE will reduce paper use in order to fulfill the responsibilities of a global citizen. Also, to reduce the impacts on global warming, the packaging materials of this product are recyclable and reusable. GIGABYTE works with you to protect the environment. For more product details, please visit GIGABYTE's website.

## Product Specification

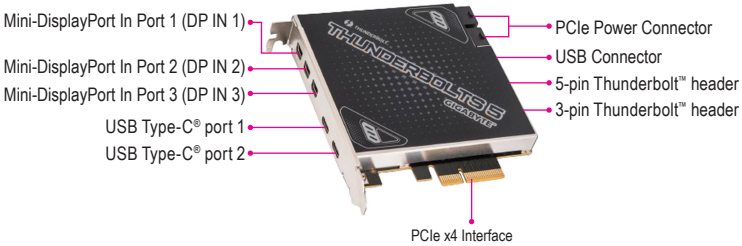
Chip	◆ Intel® JHL9580 Thunderbolt™ 5 Controller
Back Panel Connectors	◆ 2 x Thunderbolt™ 5 output ports (Thunderbolt™ 5 Port 1/Thunderbolt™ 5 Port 2), supporting up to 80 Gbps bi-directional and 120 Gbps transmit bandwidth, with a maximum display resolution of 8K (7680x3840) @60 Hz <sup>(Note 1)</sup> * Support for DisplayPort 2.1 version, HDCP 2.2, and HDR. <sup>(Note 2)</sup> ◆ 3 x Mini-DisplayPort In ports (DP_IN1/DP_IN2/DP_IN3), supporting a maximum resolution of 8K (7680x3840)@60 Hz <sup>(Note 1)</sup> <sup>(Note 3)</sup>
Internal Connectors	◆ 2 x 6-pin PCIe power connectors ◆ 1 x USB 2.0/1.1 header ◆ 1 x 5-pin Thunderbolt™ header ◆ 1 x 3-pin Thunderbolt™ header
Interface	◆ PCIe 4.0 interface (PCIe x4)
Data Transfer Rate	◆ 80 Gbps Bi-directional per port
Supported Operating Systems	◆ Support for Windows 11 64-bit (version 24H2 or later)
Compatible Motherboards	◆ Go to GIGABYTE's website for the latest motherboard support list.

(Note 1) Actual resolutions supported are dependent on the graphics card and cables being used.

(Note 2) To enable DisplayPort 2.1 functionality (up to UHBR20), specific cables are required.

(Note 3) The Mini-DisplayPort cables included in the package support DisplayPort 1.4a functionality.

# Installing the THUNDERBOLTS 5 Add-in Card



Mini-DisplayPort Cable x 3



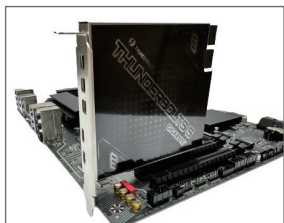
USB 2.0/1.1 Header Cable x 1



Thunderbolt™ Header Cable (5-pin) x 1



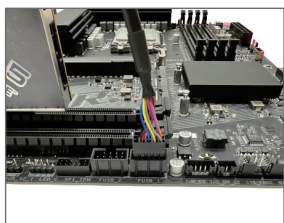
Thunderbolt™ Header Cable (3-pin) x 1



**Step 1:**  
Install the THUNDERBOLTS 5 add-in card in the PCIEX4 slot.



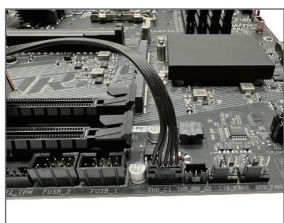
**Step 2:**  
Connect one end of the USB cable to the USB connector on the THUNDERBOLTS 5 card.



**Step 3:**  
Connect the other end of the USB cable to the FUSB connector on the motherboard.



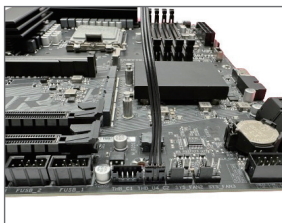
**Step 4:**  
Connect one end of the Thunderbolt™ header cable (5-pin) to the 5-pin Thunderbolt™ header on the THUNDERBOLTS 5 add-in card.



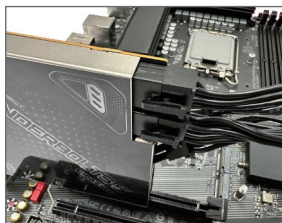
**Step 5:**  
Connect the other end of the cable to the Thunderbolt™ add-in card header on the motherboard.



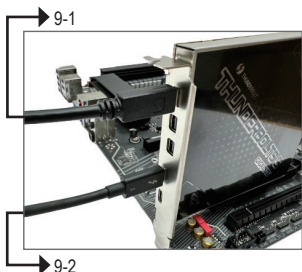
**Step 6:**  
Connect one end of the Thunderbolt™ header cable (3-pin) to the 3-pin Thunderbolt™ header on the THUNDERBOLTS 5 add-in card.



**Step 7:**  
Connect the other end of the cable to the Thunderbolt™ add-in card header on the motherboard.



**Step 8:**  
Connect the power cables from the power supply to the two PCIe connectors.



**Step 9:**  
Follow the steps below to use the Mini-DisplayPort cable to connect your graphics card to the THUNDERBOLTS 5 add-in card.

**9-1:** Connect the cable from the DisplayPort In connector on the THUNDERBOLTS 5 add-in card to the DisplayPort on your graphics card.

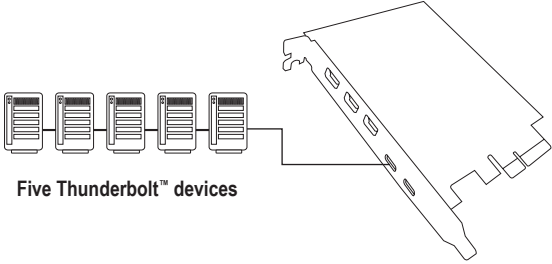
**9-2:** Connect the Thunderbolt™ device's or DisplayPort monitor's cable to the Thunderbolt™ 5 connector on the THUNDERBOLTS 5 add-in card.



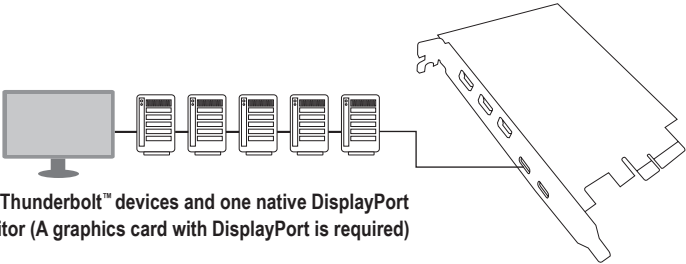
- When connecting one DisplayPort monitor, please connect the Mini-DisplayPort cable to the DP IN 1 connector, then connect the monitor's cable to the DisplayPort connector or Thunderbolt™ 5 connector 1.
- When connecting two DisplayPort monitors, please connect one of the Mini-DisplayPort cables to the DP IN 1 connector and connect the monitor's cable to the DisplayPort connector or Thunderbolt™ 5 connector 1. Then connect the other Mini-DisplayPort cable to the DP IN 3 connector and the monitor's cable to Thunderbolt™ 5 connector 2.
- Make sure to update the motherboard BIOS to the latest version.

# Daisy-chaining Thunderbolt™ Enabled Devices

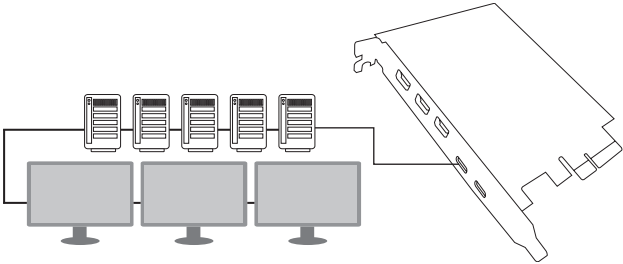
Refer to the following for connecting Thunderbolt™-enabled devices in a daisy-chaining configuration. The following are single-port configurations. (Make sure the Thunderbolt™-enabled devices to be daisy-chained have both Thunderbolt™ in and out ports.)



**Five Thunderbolt™ devices**



**Five Thunderbolt™ devices and one native DisplayPort monitor (A graphics card with DisplayPort is required)**



**Five Thunderbolt™ devices and three DisplayPort monitors (A graphics card with DisplayPort support is required)**

## Installing the Driver

After the computer starts, install the driver for the THUNDERBOLTS 5 add-in card. Insert the included driver disc and follow the on-screen instructions to install the driver.

Please visit GIGABYTE's global website (<https://www.gigabyte.com>) and click on **SERVICE/SUPPORT** for the latest software driver.

# 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.



## Contact Us

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