

GC-ALPINE RIDGE

Installation Guide/安装指南

12WE6-ALPINE-10AR

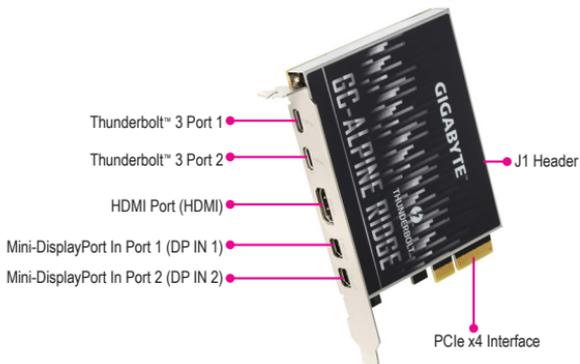


Product Specification

Chip	◆ Intel® DSL6540 Thunderbolt™ 3 Controller
Connectors	<ul style="list-style-type: none">◆ 2 x Thunderbolt™ 3 ports (Thunderbolt™ 3 Port 1/Thunderbolt™ 3 Port 2), supporting up to 40 Gbps bandwidth and a maximum display resolution of 4096x2304@60 Hz<ul style="list-style-type: none">* Actual resolutions supported are dependent on the graphics card being used.◆ 1 x HDMI port, supporting a maximum resolution of 4096x2160@24 Hz<ul style="list-style-type: none">* Support for HDMI 1.4 version.◆ 2 x Mini-DisplayPort In ports (DP IN 1/DP IN 2)<ul style="list-style-type: none">* When both of the DP IN 1 and DP IN 2 connectors are connected to graphics cards, you can choose two of the HDMI connector, Thunderbolt™ 3 connector 1, and Thunderbolt™ 3 connector 2 to use.◆ 1 x 5-pin J1 header, connecting to the motherboard THB_C header by the included THB_C header cable
Interface	◆ PCIe 3.0 interface (PCIe x4)
Data Transfer Rate	◆ 40 Gbps Bi-directional per port
Supported Operating Systems	◆ Support for Windows 10/8.1 (64-bit)/Windows 7 (32-bit/64-bit)
Compatible Motherboards	◆ Go to GIGABYTE's website for the latest motherboard support list.

Installing the GIGABYTE GC-ALPINE RIDGE Add-in Card

GC-ALPINE RIDGE Add-in Card



Mini-DisplayPort Cable x 2

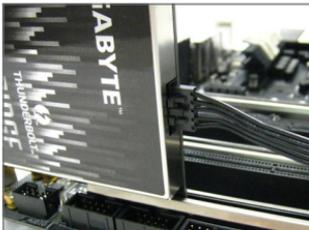


THB_C Header Cable x 1

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



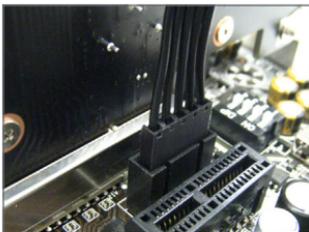
Step 1:
Install the GC-ALPINE RIDGE add-in card in the PCIEX4 slot.



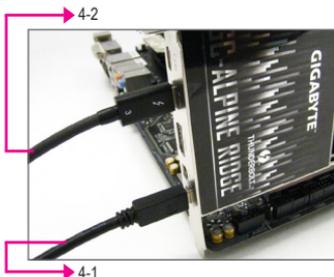
Step 2:
Connect one end of the THB_C header cable to the J1 header on the GC-ALPINE RIDGE add-in card.



Step 3:
Connect the other end of the cable to the THB_C^(Note) header on the motherboard.



(Note) The THB_C header cable provided has two connectors. Choose the correct connector according to the THB_C header on your motherboard.



Step 4:

Follow the steps below to use the included Mini-DisplayPort cable to connect your graphics card to the GC-ALPINE RIDGE add-in card.

4-1: Connect the cable from the DisplayPort In connector on the GC-ALPINE RIDGE add-in card to the DisplayPort on your graphics card.

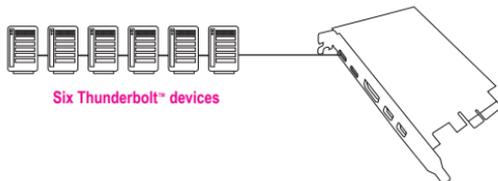
4-2: Connect the Thunderbolt™ device's or DisplayPort/HDMI monitor's cable to the Thunderbolt™ 3 connector on the GC-ALPINE RIDGE add-in card.



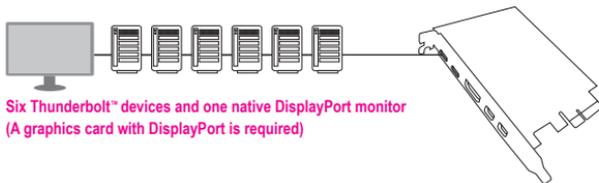
- When connecting DisplayPort/HDMI monitor(s), if you connect the Mini-DisplayPort cable to the DP IN 1 connector, you must connect the monitor's cable to the HDMI connector or Thunderbolt™ 3 connector 1. If you connect the cable to the DP IN 2 connector, you must connect the monitor's cable to Thunderbolt 3 connector 2. When both of the DP IN 1 and DP IN 2 connectors are connected, you can choose two of the HDMI connector, Thunderbolt™ 3 connector 1, and Thunderbolt™ 3 connector 2 to use.
- Make sure to update the motherboard BIOS to the latest version.

Daisy-chaining Thunderbolt™ Enabled Devices

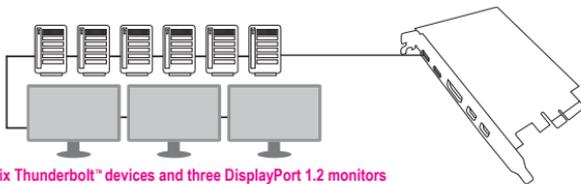
Refer to the following for connecting Thunderbolt™-enabled devices in a daisy-chaining configuration. The following are single-port configurations. (Make sure the Thunderbolt™-enabled devices to be daisy-chained have both Thunderbolt™ in and out ports.)



Six Thunderbolt™ devices



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



Six Thunderbolt™ devices and three DisplayPort 1.2 monitors
(A graphics card with DisplayPort 1.2 support is required)

Installing the Driver

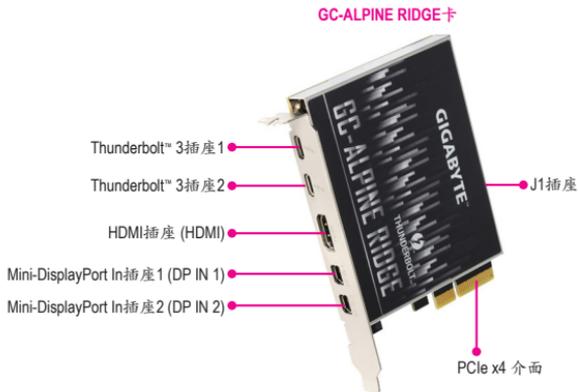
After the computer starts, install the driver for the GC-ALPINE RIDGE add-in card. Insert the included driver disk and follow the on-screen instructions to install the driver.

Please visit GIGABYTE's global website (<http://www.gigabyte.com>) and click on **Support & Downloads** for the latest software driver.

產品規格

晶片	◆ Intel® DSL6540 Thunderbolt™ 3 控制器
插座	◆ 2個Thunderbolt™ 3插座(Thunderbolt™ 3插座1/Thunderbolt™ 3插座2)，最高可支援40 Gbps傳輸速度，螢幕可支援至最高4096x2304@60 Hz的解析度 * 實際所支援的解析度會依您所使用的顯示卡而有不同。 ◆ 1個HDMI插座，可支援至最高4096x2160@24 Hz的解析度 * 支援HDMI 1.4版本。 ◆ 2個Mini-DisplayPort輸入插座(DP IN 1/DP IN 2) * 當DP IN 1/DP IN 2插座皆連接外接顯示卡時，HDMI、Thunderbolt™ 3插座1和Thunderbolt™ 3插座2可以任意選擇兩個使用。 ◆ 1個5-pin J1插座，可經由附件的THB_C插座連接線與主機板的THB_C插座連接
介面	◆ PCIe 3.0 介面(PCIe x4)
資料傳輸速度	◆ 每埠可支援至最高40 Gbps雙向傳輸速度
支援作業系統	◆ 支援Windows 10/8.1(64-bit)/Windows 7(32-bit/64-bit)
可相容主機板	◆ 請至技嘉網站查詢有關支援的主機板列表

安裝技嘉GC-ALPINE RIDGE卡



Mini-DisplayPort 連接線-2條

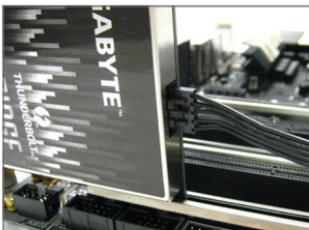


THB_C 插座連接線-1條

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



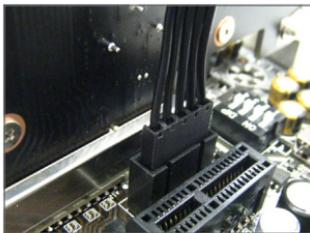
步驟1：
將GC-ALPINE RIDGE卡安裝至PCIEX4插槽。



步驟2：
將THB_C插座連接線的一端連接至GC-ALPINE RIDGE卡上的J1插座。



步驟3：
將THB_C插座連接線的另一端^(註)連接至主機板上的THB_C插座。



(註) 隨貨附贈的THB_C插座連接線提供兩種接頭，請依主機板上的THB_C插座選擇接頭類型。



步驟4：

請依照下列步驟使用所附的Mini-DisplayPort連接線將您的顯示卡與GC-ALPINE RIDGE卡做連結。

4-1：GC-ALPINE RIDGE卡上的Mini-DisplayPort In插座需連結至顯示卡的DisplayPort。

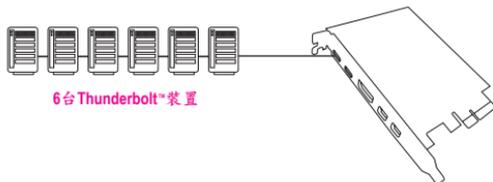
4-2：GC-ALPINE RIDGE卡上的Thunderbolt™ 3插座則需連結至Thunderbolt™裝置或DisplayPort/HDMI螢幕。



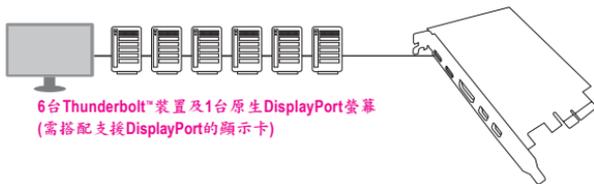
- 連接DisplayPort或HDMI螢幕時，如果您將連接線連接至DP IN 1插座，您就必須將螢幕連接線接至HDMI或Thunderbolt™ 3插座1；若是連接至DP IN 2，就必須將螢幕連接線接至Thunderbolt™ 3插座2；若是連接至DP IN 1和DP IN 2，請將螢幕連接線接至HDMI、Thunderbolt™ 3插座1和Thunderbolt™ 3插座2(可以任意選擇兩個)。
- 請確認您主機板的BIOS為最新版本。

串接Thunderbolt™ 裝置

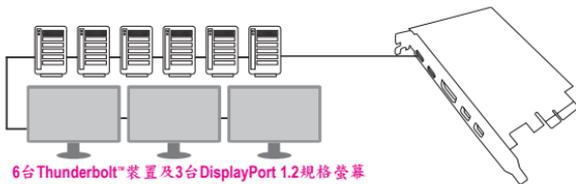
若要以菊鏈式串接方式串連Thunderbolt™裝置，請參考下列說明。以下為單一連接埠的串接示意圖。(請先確認要串接的裝置皆具備Thunderbolt™輸出及輸入插座。)



6台Thunderbolt™裝置



6台Thunderbolt™裝置及1台原生DisplayPort螢幕
(需搭配支援DisplayPort的顯示卡)



6台Thunderbolt™裝置及3台DisplayPort 1.2規格螢幕
(需搭配支援DisplayPort 1.2規格的顯示卡)

安裝驅動程式

電腦重新開機後，請安裝GC-ALPINE RIDGE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(<http://www.gigabyte.tw>)點選「支援與下載」查詢最新版的驅動程式。

FCC Notice (U.S.A. Only)

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 the 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 into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult a dealer or experienced TV/radio technician for help.

Canada, Industry Canada (IC) Notices / Canada, avis d'Industry Canada (IC)

- ◆ This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.
- ◆ Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- ◆ Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.
- ◆ Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Declaration of Conformity

We, Manufacturer/Importer,

G,B,T, Technology Trading GmbH

Address: **Bu**lenkoppel 16, 22047 Hamburg, Germany

Declare that the product

Product Type: **PCIe add in card**

Product Name: **GC-ALPINE RIDGE**

conforms with the essential requirements of the following directives:

EMC Directive 2014/30/EU:

<input checked="" type="checkbox"/> Conduction & Radiated Emissions:	EN 55022:2010/AC2011
<input checked="" type="checkbox"/> Immunity:	EN 55024:2010
<input checked="" type="checkbox"/> Power-line harmonics:	EN 61000-3-2:2006+A2:2009
<input checked="" type="checkbox"/> Power-line flicker:	EN 61000-3-3:2013

Low Voltage Directive 2014/35/EU:

<input checked="" type="checkbox"/> Safety:	EN60950-1:2006+A11:2009+A12:2011+A2:2013
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RoHS Directive 2011/65/EU

<input checked="" type="checkbox"/> 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.
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CE marking



Signature: _____

Timmy Huang

(Stamp)

Date: Jul. 29, 2016

Name: _____

Timmy Huang

DECLARATION OF CONFORMITY

Per FCC Part 2, Section 2.1077(a)



Responsible Party Name: G.B.T. INC. (U.S.A.)

Address: 17358 Railroad Street
City of Industry, CA 91748

Phone/Fax No: (626) 854-9338/ (626) 854-9326

hereby declares that the product

Product Name: PCIe add-in card

Model Number: GC-ALPINE RIDGE

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109
(a), Class B Digital Device

Supplementary Information:

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 and (2) this device must accept any interference received, including that may cause undesired operation.

Representative Person's Name: ERIC LU

Signature: Eric Lu

Date: Jul 29, 2016