


Using a Sonnet eGFX Breakaway Box With Your Mac

Your Thunderbolt™ 3-equipped Mac® running macOS® High Sierra 10.13.4 can access additional graphics performance by connecting to an external graphics processor (also known as an eGPU).

A Sonnet eGPU can give your Mac additional graphics performance for professional applications, 3D gaming, VR content creation, and more.

Sonnet eGPUs are supported on all MacBook Pro® notebooks released in 2016 and later⁽¹⁾, iMac® computers introduced in 2017 and later, and iMac Pro. Your Mac must also have macOS High Sierra 10.13.4 installed; [learn how here](#).

With eGPU support in macOS 10.13.4, you can:

- Accelerate applications that use Metal, OpenGL, and OpenCL
- Connect additional external monitors and displays
- Use virtual reality headsets plugged into the eGPU
- Charge your MacBook Pro while using the eGPU⁽²⁾
- Use an eGPU with your MacBook Pro while its built-in display is closed
- Connect an eGPU while a user is logged in
- Connect more than one eGPU using the multiple Thunderbolt 3 ports on your Mac⁽³⁾
- Use the menu bar item  to safely disconnect the eGPU
- View the activity levels of built-in and external GPUs. Open Activity Monitor, then choose Window > GPU History.

Supported eGPU configurations

It is important to use an eGPU system with a recommended graphics card and Breakaway Box model. If you are using a MacBook Pro, the Breakaway Box may also provide sufficient power to charge the computer while running the graphics card. Check the information listed below for Sonnet Breakaway Box Power Delivery capabilities.

Recommended graphics cards, along with Sonnet chassis that can power them sufficiently, are listed below.

Radeon RX 470/570, RX 480/580, and AMD Radeon Pro WX 7100 graphics cards

These graphics cards are based on the AMD Polaris architecture.

Recommended Thunderbolt 3 chassis for these graphics cards:

- Sonnet eGFX Breakaway Box (350W)⁽²⁾
- Sonnet eGFX Breakaway Box 550W⁽²⁾
- Sonnet eGFX Breakaway Box 650W⁽²⁾

Radeon RX Vega 56 graphics cards

These graphics cards are based on the AMD Vega 56 architecture.

Recommended Thunderbolt 3 chassis for these graphics cards:

- Sonnet eGFX Breakaway Box 550W⁽²⁾
- Sonnet eGFX Breakaway Box 650W⁽²⁾

Radeon RX Vega 64 Air, Radeon Vega Frontier Edition Air, and Radeon Pro WX 9100 graphics cards

These graphics cards are based on the AMD Vega 64 architecture.

Recommended Thunderbolt 3 chassis for these graphics cards:

- Sonnet eGFX Breakaway Box 650W⁽²⁾

See this [chart](#) for a complete list of compatible cards.

eGPU Support in Applications

eGPU support in macOS High Sierra 10.13.4 is designed to accelerate Metal, OpenGL, and OpenCL applications that benefit from a powerful eGPU. However, not all applications support eGPU acceleration. Check with the application's developer to learn more.

Also note that Macs do not support eGPUs in Windows using Boot Camp or when your Mac is in macOS Recovery or installing system updates.

In general, an eGPU can accelerate performance in these types of applications:

- Pro applications designed to utilize multiple GPUs
- 3D games, when an external monitor is attached directly to the eGPU
- VR applications, when the VR headset is attached directly to the eGPU
- Pro applications and 3D games that accelerate the built-in display of an iMac or MacBook Pro. (This capability must be enabled by the application's developer.)

For best results with applications like 3D games, set a display that's attached to the eGPU as the primary system display:

1. Go to System Preferences > Displays, and select the Arrangement tab.
2. Drag the white menu bar to the box that represents the display that's attached to the eGPU.

If you have questions about third-party application support and compatibility, contact your software provider.

Setup

1. Plug the compatible graphics card into the Box, secure the card, plug the auxillary power connectors to the card, and close the Box.
2. Plug in power to your Breakaway Box. If your Breakaway Box has a power switch, flip it on. [*Note: The Box will not turn on until it is connected to an active computer via Thunderbolt.*] Connect you Breakaway Box via a Thunderbolt 3 cable to your computer.
3. Set up your monitor(s);
To obtain the best graphics acceleration for applications like games, set a display connected to the eGPU as the main monitor. Open System Preferences:Displays, select Arrangement and drag the white menu bar to the external monitor. Drag the monitors to mimic the physical arrangement.

If you want to tile your displays into one large space, Open System Preferences: Mission Control. Uncheck Displays have separate Spaces.
4. Note that if you mirror an internal and external display together, internal graphics will be used.

Troubleshooting

The Card Is Not Recognized

Check whether you plugged in the auxillary power connector(s) to the top (or sometimes rear) of the external graphics card.

Monitor's Full Resolution Is Not Available

Open System Preferences:Monitors. Option-click the Scaled button. All the available resolutions should appear.

The display is not being detected

If your Mac doesn't recognize a display you've just connected, choose Apple menu:System Preferences, then click Displays. hold down the Option key to make the Detect Displays button appear, then click that button.

Notes

1. If you're using a 13-inch MacBook Pro from 2016 or later, always plug eGPUs and other high-performance devices into the left-hand ports for maximum data throughput.
2. Sonnet's eGFX Breakaway products provide Power Delivery for charging your MacBook Pro:
 - eGFX Breakaway Box (350)- 15W
 - eGFX Breakaway Box Developer Edition - 60W
 - eGFX Breakaway Box 550 - 87W
 - eGFX Breakaway Box 650 - 87W
3. For optimal performance, eGPUs should be connected directly to your Mac and not daisy-chained through another Thunderbolt device.

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