

External Graphics under Windows 10

Thunderbolt 3 PCs with 64-bit Windows 10

External Graphics using AMD and NVIDIA graphics cards are supported on some, but not all Windows computers.

- a. Sonnet supports only Thunderbolt 3 Windows computers. (Thunderbolt 2 and Thunderbolt computers are not supported.)
- b. Sonnet supports only computers running 64-bit Windows 10 (32-bit Windows 10, Windows 7 and Linux are not supported.)

1. Check that your computer is compatible with external graphics. Sonnet has compiled a partial list. ASUS, Razer, and Intel report their compatible computers. Other listed computers may be Sonnet tested or user reported. If a listed computer has an optional discrete NVIDIA GPU, then it may not currently be compatible with external NVIDIA GTX graphics, even if the model is listed as compatible (these models should be compatible with AMD cards).

Compatibility List

Acer

Acer Aspire R 13
Acer Aspire Switch 12
Acer Aspire V15 Nitro
Acer Aspire V17 Nitro

ASUS

ASUS ROG G501VW
ASUS ROG GL502VM
ASUS ROG G701VI
ASUS ROG GL702VM
ASUS ROG G752VL
ASUS ROG G752VM
ASUS ROG G752VS
ASUS ROG G752VT
ASUS ROG G752VY
ASUS ROG GX800VH
ASUS Transformer 3 Pro T303UA
ASUS Transformer 3 T305CA
ASUS UX501VW
ASUS ZenBook Pro UX490UA
ASUS ZenBook Pro UX501VW
ASUS ZenBook Pro UX550VD
ASUS ZenBook Pro UX550VE

Dell

Dell Latitude 7280
Dell XPS 13 9350
Dell XPS 13 9360
Dell XPS 13 9365
Dell XPS 15 9550
Dell XPS 15 9560

Gigabyte

Aero 15

HP

HP EliteBook x360 G2
HP Spectre 13-ac076nr
HP Spectre 13-w063nr
HP Spectre 13-v011dx
HP Spectre x360
HP Spectre x360 (2nd Generation 2017)
HP ZBook 15 G2 without dGPU
HP ZBook 15 G3 without dGPU
HP ZBook 17 G3 without dGPU
HP ZBook Studio G3
HP ZBook Studio G4

Intel

Intel NUC6i7KYK NUC
 Intel NUC7i5BNH NUC
 Intel NUC7i5BNK NUC
 Intel NUC7i7BNH NUC

Lenovo

Lenovo ThinkPad X1 Carbon (5th Gen 2017)

Razer

Razer Blade
 Razer Blade Pro
 Razer Blade Stealth 12.5"
 Razer Blade Stealth New 12.5" 4K
 Razer Blade Stealth New (Late 2016)
 Razer Blade Stealth New 12.5" 4K
 Razer Blade Stealth New (Late 2016)

2. Choose a compatible graphics card:

AMD

AMD Radeon RX 580
 AMD Radeon RX 570
 AMD Radeon RX 560
 AMD Radeon RX 550
 AMD Radeon RX 480
 AMD Radeon RX 470
 AMD Radeon RX 460

AMD Radeon R9 Fury
 AMD Radeon R9 Nano
 AMD Radeon R9 300 Series
 AMD Radeon R9 290X
 AMD Radeon R9 290
 AMD Radeon R9 285

NVIDIA

NVIDIA GeForce GTX Titan Xp (Pascal)
 NVIDIA GeForce GTX 1080 Ti
 NVIDIA GeForce GTX 1080
 NVIDIA GeForce GTX 1070
 NVIDIA GeForce GTX 1060
 NVIDIA GeForce GTX 1050 Ti
 NVIDIA GeForce GTX 1050

NVIDIA GeForce GTX Titan X (Maxwell)
 NVIDIA GeForce GTX 980 Ti
 NVIDIA GeForce GTX 980
 NVIDIA GeForce GTX 970
 NVIDIA GeForce GTX 960
 NVIDIA GeForce GTX 950
 NVIDIA GeForce GTX 750 Ti
 NVIDIA GeForce GTX 750

2. Choose the Breakaway Box model that has enough power for your specific card by checking the [Sonnet Graphics Card Power Compatibility](#) list.

3. Update 64-bit Windows 10 to **Version 1703** or newer. This is also called the **Creators Update** or **RS2**. To check the version number, enter **winver** in the search bar and click enter.

4. Update your computer's BIOS to the latest version. If you need help updating your BIOS, contact your computer manufacturer.

5. Update your Thunderbolt Bus Driver to the latest version. You will need version **16.3.61.275** or newer. To check your driver version, go to **Settings:Apps:Thunderbolt(TM) Software** and you will see the version number. If it is not 16.3.61.275 or greater, then you need to update it. Check with your computer manufacturer for an update.

6. Install your **AMD** or **NVIDIA** card in the Breakaway Box and connect the Breakaway Box to your computer. You should get a message asking whether you want to connect this Thunderbolt

peripheral. Select “Connect Always”. (You may get an additional message from Windows alerting you that External Graphics is not supported on this computer. Click OK and continue.)

7. Download and install the driver software. Go to the AMD or NVIDIA website to find, select, download and install the appropriate driver. If the installer fails to recognize a graphics card, then restart your computer. If the installer still does not recognize the card, then you either have a computer that has not been fully updated or else it is not compatible with external graphics.

8. There are a few additional things you need to know.

- a. You may not be able to hibernate your computer.
- b. You should not plug or unplug external graphics while your computer is sleeping.
- c. When you disconnect external graphics, you may need to wait for Windows to recognize the disconnection (two beeps) before you plug external graphics back in again.
- d. You may have to close applications running on external graphics before unplugging. Applications may have no issues, may migrate to the internal graphics, may display an error message, or may crash.

9. Please share your experience with the community whether you were successful and which computer and graphics card you were using, by visiting our Breakaway Box blog on our Facebook page at <https://www.facebook.com/SonnetTech/>.