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## pastrychef's Asus ROG Strix Z370-G Gaming (WI-FI AC) build w/ i9-9900K + AMD Vega 56

pastrychef · Dec 8, 2017

1 of 686

Next ▶

pastrychef  
Moderator

Dec 8, 2017

#1

**pastrychef's Asus ROG Strix Z370-G Gaming (WI-FI AC) -  
~~i7-8700K~~ i9-9900K - AMD Vega 56 build**



## Components

### Asus ROG Strix Z370-G Gaming (WI-FI AC)

<https://www.amazon.com/dp/B075RHWCBT/?tag=tonymacx86com-20>

<https://www.newegg.com/Product/Product.aspx?Item=N82E16813119042>

### Intel i7-8700K Processor

<https://www.newegg.com/Product/Product.aspx?Item=N82E16819117827>

## Already owned

### ~~Samsung SM951 512GB AHCI M.2 SSD~~

### Samsung 970 EVO 1TB NVMe M.2 SSD w/Heatsink

[https://www.newegg.com/Product/Product.aspx?](https://www.newegg.com/Product/Product.aspx?Item=N82E16820147691&cm_re=samsung_970_evo_-_20-147-691_-_Product)

[Item=N82E16820147691&cm\\_re=samsung\\_970\\_evo\\_-\\_20-147-691\\_-\\_Product](https://www.newegg.com/Product/Product.aspx?Item=N82E16820147691&cm_re=samsung_970_evo_-_20-147-691_-_Product)

*\*Note: Avoid Samsung PM981 and 970 EVO Plus NVMe M.2 SSDs. These two particular SSDs do not work well with macOS. PM1725a has also been reported to have issues with macOS.*

### Noctua NH-D15S Processor Cooler

<http://www.newegg.com/Product/Product.aspx?Item=N82E16835608072>

### G.Skill TridentZ Series DDR4 RAM 64GB Memory

<http://www.newegg.com/Product/Product.aspx?Item=N82E16820232260>

### ~~Gigabyte GTX 1080 GV-N1080TTOC-8GD~~

<https://www.newegg.com/Product/Product.aspx?Item=N82E16814125908>

### MSI Radeon RX Vega 56 Air Boost 8G OC

<https://www.newegg.com/Product/Product.aspx?Item=N82E16814137263>

### SeaSonic X Series X-850 (SS-850KM3 Active PFC F3) 850W Power supply

<http://www.newegg.com/Product/Product.aspx?Item=N82E16817151102>

### SilverStone KL06B Case

<http://www.newegg.com/Product/Product.aspx?Item=N82E16811163276>

### BCM94360C2 Wi-Fi/Bluetooth card w/ M.2 adaptor

#### BCM94360CS2:

[MacBook Air 13 A1465 A1466 2013 2014 WiFi Bluetooth Air Port Card BCM94360CS2 AP | eBay](#)

[Amazon.com: New WiFi Bluetooth Card BCM94360CS2 For MacBook Air 13" A1465 A1466 Mid 2013: Computers & Accessories](#)

#### M.2 adaptor:

[BCM94360CS2 Card To NGFF\(M.2\) Key A/E Adapter For Mac OS and Hackintosh | eBay](#)

[Amazon.com: Hobbypower BCM94360CS2/BCM943224PCIEBT2 Card To NGFF\(M.2\) Key A/E Adapter For Mac OS: Computers & Accessories](#)

### **Dell DW1830 M.2 BECM943602BAED Wi-Fi/Bluetooth card**

[Amazon.com: DELL HHKJD WLAN DW1830 WIRELESS-AC WI-FI CARD BCM943602BAED: Computers & Accessories](#)

### **Athena Power BP-TLA2131SAC 3.5" HDD Trayless Hot-Swap Backplane module**

<http://www.newegg.com/Product/Product.aspx?Item=N82E16817995109>

### **iStarUSA BPN-2535DE-SA 3.5" to 2x2.5" Trayless Hot-Swap Backplane module**

<http://www.newegg.com/Product/Product.aspx?Item=N82E16816215366>

### **Gigabyte GC-AQC107 10GBase-T card** (added January 22, 2018)

[https://www.newegg.com/Product/Product.aspx?Item=9SIA93A6R42017&cm\\_re=gc-aqc107-\\_9SIA93A6R42017-\\_Product](https://www.newegg.com/Product/Product.aspx?Item=9SIA93A6R42017&cm_re=gc-aqc107-_9SIA93A6R42017-_Product)

### **Matias Tactile Pro Mechanical Keyboard**

### **Apple Magic Mouse**

~~**Solarflare 10GbE PCI-e card** (replaced with Gigabyte GC-AQC107 10GBase-T) (replaced with Intel X540-T2 10GBase-T)~~

~~**Apple Remote IR receiver** that I ripped from an old MacBook and jury-rigged to USB. Found a cleaner IR receiver [here](#).~~

## **Comments**

This build is actually an upgrade of my previous build. All I did was transplant in a new motherboard and CPU. Honestly, I really didn't ***need*** to upgrade, I just wanted to... The six core Coffee Lake CPU was too tempting and I felt like treating myself to a nice Xmas present. My Gene build ran wonderfully up until I took it out of commission and I have no problems recommending it.

Based on everything I'd read, Coffee Lake is essentially just Kaby Lake with two more cores. So, I was pretty confident that macOS could be installed with a minimal of extra effort, so I took the plunge...

## **The Build**

### **Motherboard**

I knew I wanted an mATX motherboard. It offered enough PCI-e slots for me and I would be able to find cases for it that would be smaller than my old Mac Pro which ate up way too much desk space. My previous experience with the Asus Z170 Gene motherboard was so good that I wanted to stick with Asus when upgrading. For the Z370, Asus only has one mATX motherboard available and that's what I went with.

When Asus released their mATX z270 offerings, the successor to the Gene lost its "Maximus" moniker. The reason for that is that it no longer included some of the more "advanced" features such as LED Q-Code display, motherboard "Start" button, etc. This didn't bother me

since I never used any of those features. The Z370-G continues on without these features or the Maximus moniker.

## **CPU**

I wanted the i7-8700K. Six cores and only 4W higher TDP than the i7-7700K that I had been using.

Once I received the i7-8700K, before even testing it, I delidded it and replaced the thermal compound used by Intel. Previously, I used Coollaboratory Liquid Ultra on my i7-6700K and i7-7700K with fantastic results. Since then, I became aware of a competing thermal compound, the Thermal Grizzly Conductionaut. On paper, Conductionaut was clearly the superior product with a rating of 73 W/mk vs Liquid Ultra's 38.4 W/mk. I decided to give it a try. Conductionaut turned out to be extremely difficult to handle and the syringe shot the stuff everywhere. Performance-wise, I have found both products to produce very similar results. Therefore, I would recommend just sticking with Liquid Ultra, especially if you are a little klutzy like myself.

With my current 5GHz overclock, max temps reached about 75C when the CPU was under full load.

In the past, I relied upon the Asus AI Suite to handle the overclocking of my i7-6700K and i7-7700K. However, this time around, it produced less than desirable results. I ended up duplicating the overclocking settings from [this video](#) and I'm running at 5GHz. My personal example of the i7-8700K reached a stable 5GHz with 1.38v and LLC6 and can run 24/7 without any problems.

The only thing to be aware of when following the overclocking instructions from the above video is that Mac users should not use the AVX offset setting. It does not appear to function properly in macOS.

\*For those of you considering a crazy 18 core/36 thread build or something similar, please see posts [#2216](#) and [#3255](#) for my thoughts on that and links to some very interesting and informative videos.

Update November 21, 2018:

I upgraded to an i9-9900K. For details on how I delidded it and how it performs compared to my old i7-8700K, please see [this post](#) and [this post](#).

## **Heatsink & Fans**

Here, I chose Noctuas based on reviews I'd read online. They are regarded by many as the best and were supposedly extremely quiet.

After having used the Noctua heatsink and fan for about a year and a half, I can honestly say that they deserve all the accolades that they get. The fans are extremely quiet and high quality. The heatsink keeps the CPU amazingly cool. I would recommend this to anyone.

The only thing to be aware of is that if you use the NH-D15S with an mATX motherboard, the video card will be extremely close to the heatsink. You should make sure that the two do not make contact especially if the video card you use does not have a backplate. We don't want anything shorting out...

Update (April 18, 2018): I have added a heatsink to my M.2 SSD. Info is on post [#1375](#).

## Graphics card

I originally started my Gene build with a reference Nvidia GTX 980 that I pulled from my old Mac Pro. When Nvidia released drivers with Pascal support, I upgraded to a GTX 1080. I decided to go with a GTX 1080 rather than a GTX 1080 Ti, because I liked the lower TDP and the GTX 1080 offered more than enough performance for my needs.

Once again, I chose to go with a blower style GPU cooler because they push heat generated from the GPU out the rear of the computer. This helps keep internal temperatures lower inside the computer which benefits all the other components.

Update February 18, 2018:

In light of the recent problems with the Nvidia web drivers and improved support for some AMD cards, I would recommend the Sapphire Radeon RX 580 Pulse (currently the most compatible card around) or one of the AMD Vega cards if you require higher performance.

Update March 10, 2018:

I've made the switch from Nvidia to AMD in the form of an MSI Radeon RX Vega 56 Air Boost 8G OC. Everything is much smoother and less buggy. As per my usual modus operandi, I chose this card because of the blower style cooler. I want to keep temps inside the case as low as possible.

I was faced with deciding between a Vega 56 or Vega 64. At the end of the day, I went with a Vega 56 due to the significantly lower TDP. It was also the reason I chose a GTX 1080 over a GTX 1080 Ti when I bought that card. So far, I'm extremely happy with my decision.

Currently AMD Vega video cards run with the fans spinning faster than they should. To fix the fan issue, we can use the VGTab utility (see attachment below). The FakeSMC\_GPUSensors.kext is not working with Vega but we can check how fast the fans are running with this Terminal command:

Code:

```
ioreg -l | grep "\"PerformanceStatistics\" | cut -d '{' -f 2 | tr '|' ',' | tr -d '}' | tr '
```

I applied Thermal Grizzly Conductionaut to my Vega 56. Details are [here](#). Details of my undervolting/overclocking findings are [here](#).

## Power Supply

I went with a Seasonic under the recommendation of several friends who know their PCs. Originally, I just wanted a 750W but there was practically no price difference for the 850W, so I said what the heck...

## Case

Choosing a case took more time than choosing any other component for me. I wanted something as compact as possible without sacrificing on cooling and still provide for enough room for a decent number of drives and have easily accessible fan filters. It took a while, but I finally stumbled upon the Silverstone KL06 and it met all my requirements. In particular, I liked how I would be able to mimic my old Mac Pro's cooling; a large CPU heatsink sandwiched between 120mm intake and exhaust fans at the bottom, a 120mm fan that blows directly at

the PCI-e slots, and power supply and drives situated at the top.

Aesthetically, it can best be described as boring or nondescript but that's fine for me. I like classy more than outlandish. Quality-wise, it can't compete with Apple's cases but I doubt that many, if any, can.

### Wi-Fi/Bluetooth card

Initially, I used a BCM94360 card with PCI-e adaptor. I then switched to a Dell DW1830 M.2 card that replaced the Intel card that was included with the motherboard. This allows for a much neater installation and frees up a PCI-e slot.

I have switched once again from the Dell DW1830 to a BCM94360CS2 (pulled from MacBook Airs) with an M.2 adaptor. I posted details on post [#40](#).

*\*Note: If/when you need to install Windows, download [Apple's Boot Camp Support Software 5.1.5722](#) to get drivers for the BCM94360CS2 and Bluetooth.*

*\*\* Note: For those of you using DW1830 and are experiencing problems after wake, please see [this post](#) with work arounds and fixes.*

### The rest of the components

Everything else was transplanted from my old Mac Pro.

## Installation

### RAM slots:

Spoiler: Depreciated. Latest versions of Clover have fixed this.

No longer an issue. Latest versions of BIOS have fixed this.

### BIOS settings:

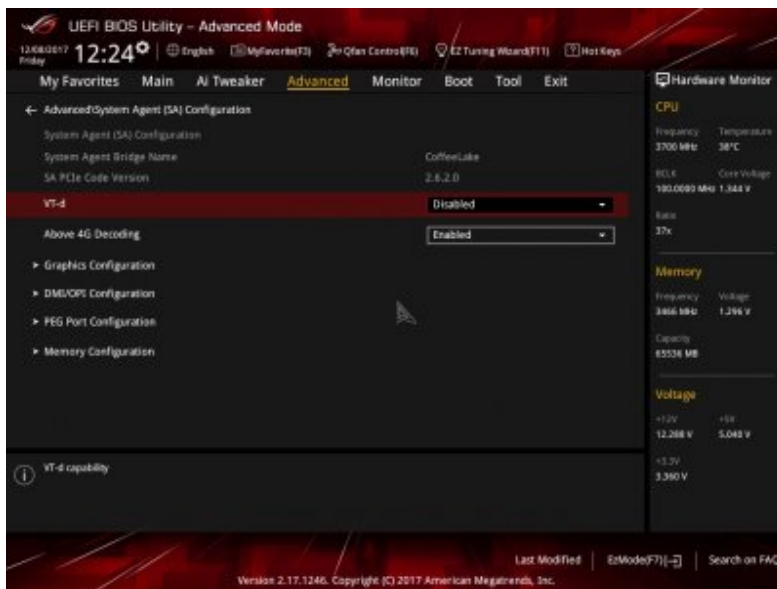
Set everything to default. Then set the following:

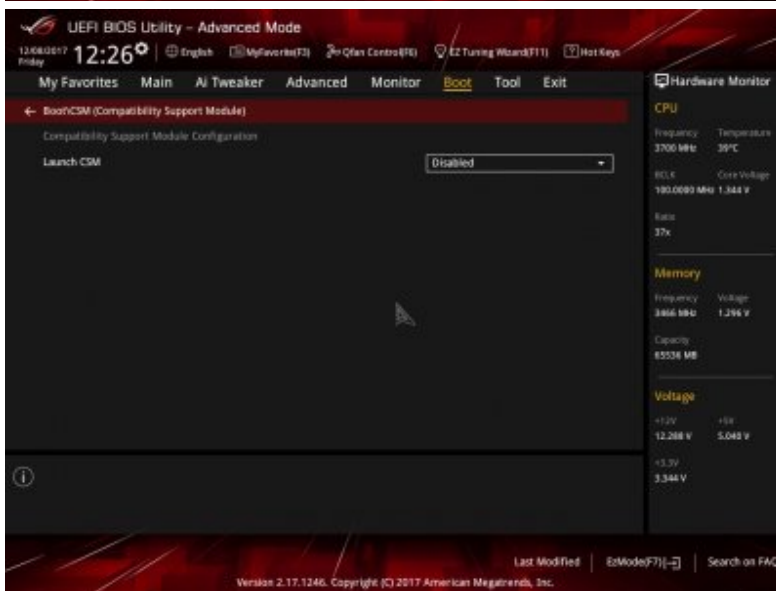
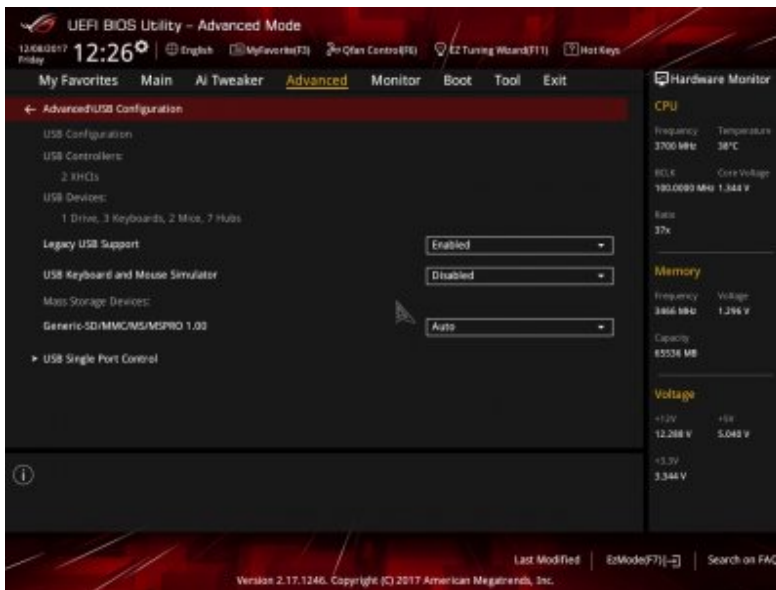
- Advanced/CPU Configuration/Intel Virtualization Technology - Enabled
- Advanced/System Agent (SA) Configuration/VT-d - Disabled
- Advanced/System Agent (SA) Configuration/Graphics Configuration/Primary Display - PCIE (This will not be available if you are only using UHD 630.)
- Advanced/System Agent (SA) Configuration/Graphics Configuration/iGPU Multi-Monitor - Enabled (This will not be available if you are only using UHD 630.)
- Advanced/System Agent (SA) Configuration/Graphics Configuration/RC6(Render Standby) - Enabled
- Advanced/System Agent (SA) Configuration/Graphics Configuration/DVMT Pre-Allocated - 192M (64M should also work)
- Advanced/USB Configuration/Legacy USB Support - Enabled
- Advanced/USB Configuration/USB Keyboard and Mouse Simulator - Disabled
- Boot/CSM (Compatibility Support Module)/ Launch CSM - Enabled (**Updated January 22, 2018**: I originally used Disabled because it would allow Clover to boot in to the



monitor's native resolution. Since then, I have found that Enabling CSM gives better compatibility with devices such as AQC107 and multi monitor support albeit at the loss of native resolution for the Clover boot menu. Bottom line, try both and use the one that works best with your hardware.)

- Boot/Secure Boot/ OS Type - Other OS
- (Optional)Ai Tweaker/Ai Overclock Tuner - XMP



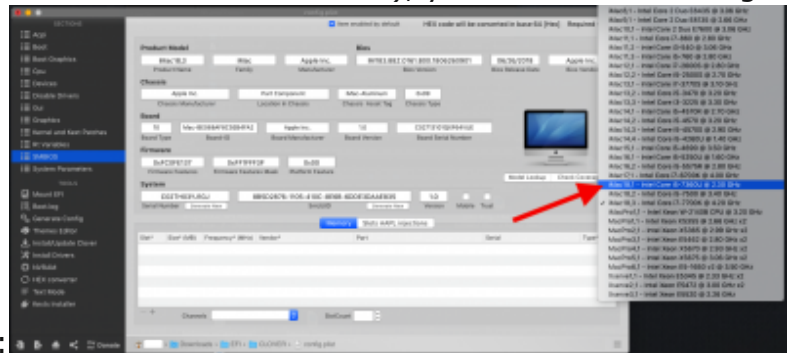


## Create your USB installer and install macOS:

1. Download macOS High Sierra installer via App Store from a Mac or hackintosh.
2. Download [UniBeast 8.1.0](#).
3. Initialize your USB flash drive with Mac OS Extended (Journaled) and name it USB.
4. Launch UniBeast and let it create your USB installer.



- When finished, replace the EFI folder in the EFI partition with the one attached to the bottom of this post.
- \*If you are using iGPU (as in no dedicated video card), you will need to change to



iMac18,1 system definition:

Alternatively, you can use [this method](#) to create your USB installer and then copy EFI folder to the EFI partition of the USB flash drive.

\* The reason why I have a customized EFI folder is because I was unable to boot with the EFI folder created by the current version of UniBeast. (Update (March 15, 2018): I tested the latest UniBeast/MultiBeast and they are now working with this build.) (Update (April 13, 2018): MultiBeast 8.3.1 is broken. Stick with MultiBeast 8.1, as linked above.)

\*\* FYI, macOS Sierra has also been [confirmed](#) to run fine by forum member Lestliness.

\*\*\* If you wish to use iMacPro1,1 system definition, simply change it in the SMBIOS section of config.plist along with new Board Serial Number, Serial Number, and UUID. No other change is needed. ~~Be aware that iMacPro1,1 requires special builds of macOS.~~ As of macOS 10.13.4, there is no longer special builds of macOS for iMacPro1,1. The builds have been unified.

\*\*\*\* For those who have multiple hackintoshes, you can have one USB flash drive that will work on all your hacks. Instructions are [here](#).

- Boot up from the USB installer.
- Follow the on screen instructions and install macOS.
- When complete, you can copy the EFI folder linked to the bottom of this post to the EFI partition of your macOS High Sierra drive.
- If using Intel UHD630 graphics ONLY, open your config.plist and change the system definition to iMac18,1 in SMBIOS section.
- If using Nvidia graphics, install the [Nvidia web drivers](#) that are associated with the version of macOS you installed.

\* If you are upgrading from another hackintosh or Mac, you can just copy the EFI folder at the bottom of this post to your existing drive and transplant the drive.

\*\* Audio will default to Digital Out. Go to System Preferences/Sound to select the correct output you are using. The naming is deceptive. Internal Speakers in System Preferences is Line Out on the motherboard and what I use.

\*\*\* For those who want to know more about the shikigva= boot argument, the full description can be found [here](#).

\*\*\*\* If you are only able to download a 19MB macOS installer from the App Store, follow [this guide](#) to get the complete installer.

**\* Full description of what the EFI folder does can be found [here](#). I highly recommend you read this!**

## Post installation tweaks:

### RAM fix:

Spoiler: Depreciated. Latest versions of Clover have fixed this.

Spoiler: Depreciated. Latest versions of Clover have fixed this.

No longer needed. Latest BIOS updates and/or versions of Clover have fixed this.

### iMessage fix:

While you are in the SMBIOS section, you should also generate Serial Number and UUID to get iMessage working. Follow [An Idiot's Guide To iMessage](#) to get it all working.

\*Note: Regardless of whether you use iMessage or not, the guide should be followed to implement clean Board Serial Number, Serial Number, and UUID. Not having this setup can be cause for things like Bluetooth issues. Do not report problems unless you have done this.

### Power Management fix:

Spoiler: Depreciated and no longer needed. Power Management fix already implemented in latest rel...

Spoiler: Depreciated and no longer needed. Power Management fix already implemented in latest releas...

Enter the following command in Terminal to deactivate AutoPowerOff after 8 hours of inactivity:

Code:

```
sudo pmset -a autopoweroff 0
```

Update: **Native power management is already implemented in latest release of my EFI folders.** (Depreciated stuff is in spoiler. autopoweroff setting is still needed for everyone.)

### USB fix:

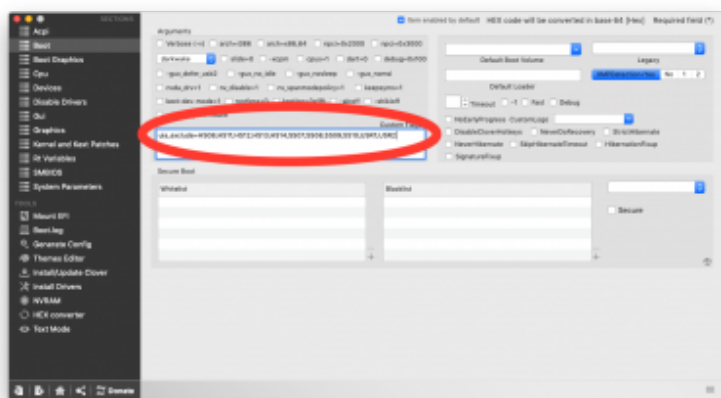
The EFI folder linked here incorporates the USB 15 port limit patch. However, this is considered a temporary fix and the proper fix is to map out the USB ports, create an SSDT,

and disable enough ports to bring the total number down to 15 or less. Full explanation can be found at section 7.2 of [this post](#). My simplified directions on how to do this can be found [here](#). More detailed info can be found [here](#). (*\*There are other methods to achieve this. If other methods work for you, use it. This is what worked for me and it's what I use.\**)

I have already mapped out the USB ports and have created the .aml and .dsl files. They are linked at the bottom of this post. Remember, even with the use of this SSDT-USB.aml file, you should have the XHCI-200-series-injector.kext in your /EFI/CLOVER/kext/Other/ folder and you still have to use the uia\_exclude custom flag (in Boot section of Clover Configurator) in your config.plist to bring the total port count to 15 or less. One great thing about this motherboard is that you can just disable four of the five (fifth is the USB2 port wired to the internal M.2 slot for Wi-Fi/Bluetooth card) internal USB2 ports and be at exactly 15 ports. This leaves the 4th USB2 for Bluetooth.

1. Download the Strix Z370 USB ports.aml file.
2. Rename it to SSDT-USB.aml.
3. Copy it to /EFI/CLOVER/ACPI/patched/, and, lastly.
4. Add your uia\_exclude boot argument to config.plist.
5. Disable all the USB 15 port limit KextsToPatches in config.plist.

Here's how mine looks:



***\*The .aml and .dsl files are specific to the Strix Z370-G motherboard. Do not use with other motherboards!***

***\*\*The .dsl file is provided for reference for those who want to see what was done to create the .aml file. It does not need to be installed anywhere.***

(Update Dec 13, 2017: I have updated USB .aml and .dsl files with a few minor fixes. I forgot to map the two USB2 ports.)

(Update Jan 6, 2018: Both .aml and .dsl files updated with corrections/bug fixes.)

Internal USB2 Headers =  
HS11 - HS14

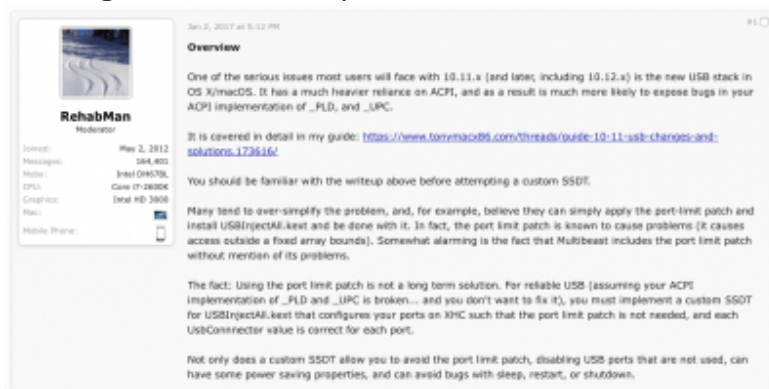
M.2 USB2 Connection =  
HS07



Internal USB3 Headers =  
HS03/SS03 + HS04/SS04

\*Forum member snoopy69 made a very nice map image on post [#3005](#).

*\*For those of you who are wondering why bother when the 15 port limit patch seems to be working fine, here's a [quote from RehabMan](#):*



\*\*\* I confirmed that the two USB 3.1 gen 2 ports work great on post [#3294](#).

### Audio loss after sleep fix:

Spoiler: Depreciated. No longer needed.

Starting with AppleALC v.1.2.6, audio works fine after wake from sleep.

### Enable Bluetooth on DW1830 (Optional):

If you have decided to use a Dell DW1830 M.2 Wi-Fi/Bluetooth card, you will need to install BrcmFirmwareData.kext and BrcmPatchRAM2.kext in to your /EFI/CLOVER/kexts/Other/ folder. Both kexts can be found at: [RehabMan / OS-X-BrcmPatchRAM / Downloads — Bitbucket](#)

*\*Thanks to neilhart for helping me figure out how to get it working and RehabMan for the kexts.*

### Enable FileVault (Optional):

Spoiler: Depreciated. Now using AptioInputFix-64.efi.

Spoiler: Depreciated. Now using AptioInputFix-64.efi.

I have AptioInputFix-64.efi and UsbKbDxe-64.efi installed by default to get FileVault working.

### 9th Gen CPU IGPU fix:

Spoiler: Depreciated. No longer needed as of macOS 10.14.4.

Spoiler: Depreciated. No longer needed as of macOS 10.14.4.

As of macOS 10.14.4, 9th gen IGPU is correctly detected and identified automatically by macOS.

### Populating System Information > PCI (Optional):

If you want to populate System Information > PCI, I have posted instructions on how to do it [here](#).

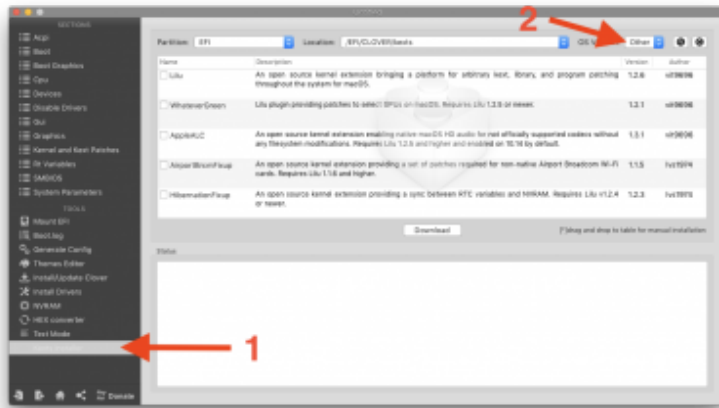
## Maintenance & Future Updates

1. Always check the forum to see if new versions of macOS break anything.
2. Check for updates to:
  - Everything in /EFI/CLOVER/kexts/Other/
  - Clover
  - ~~apfs.efi which is located in /EFI/CLOVER/drivers64UEFI/~~ (No longer needed. Superseded by ApfsDriverLoader.efi.)

Of particular interest to this build are:

- [Clover EFI bootloader](#)
- [FakeSMC.kext](#)
- [USBInjectAll.kext](#)
- ~~[XHCI-200-series-injector.kext](#)~~ (Use the XHCI-200-series-injector.kext because it matches our a2af Device ID.) (No longer needed with Mojave.)
- [Lilu.kext](#)
- [AppleALC.kext](#)
- [IntelGraphicsFixup.kext](#) (Now integrated in to WhateverGreen 1.2.0)
- ~~[NvidiaGraphicsFixup.kext](#)~~ (Now integrated in to WhateverGreen 1.2.0)
- [WhateverGreen.kext](#)
- ~~[Shiki.kext](#)~~ (Now integrated in to WhateverGreen 1.2.0)

\*Update: The latest version of Clover Configurator provides an easy means of keeping your kexts updated. Select "Kext Installer" and then "Other".



3. Of course, after updating macOS, Nvidia web drivers will also need updating.  
4. On rare occasions, we need to update the SMBIOS section because of updated firmwares on real Macs. To do this:

1. Open your config.plist with Clover Configurator.
2. Copy your working Serial Number, SmUUID, and Board Serial Number.
3. Click the little up/down button to the right of the image of an iMac.
4. Select iMac18,3.
5. Fill in the Serial Number, SmUUID, and Board Serial Number with what you copied earlier.
6. Save.

5. Be careful with motherboard BIOS updates!! They can sometimes break things.  
6. If you use FileVault, make sure that AsAmiShim.efi **or** AptioInputFix-64.efi is still in /EFI/CLOVER/drivers64UEFI whenever you update Clover.

## **Temps and Power Consumption:**



	i7-6700K @ 4.8GHz	i7-7700K @ 5.1GHz	i7-8700K @ 5.0GHz	i7-8700K @ 5.0GHz	i9-9900K @ 5.0GHz
GPU	GTX 980	GTX 1080	GTX 1080	Vega 56	Vega 56
Ambient	24C	24C	24C	24C	25C
Idle	27-29C	33-37C	35-37C	32-33C	36-38C
Full load	69C	77C	77C	78C	82C

	i7-6700K @ 4.8GHz	i7-7700K @ 5.1GHz	i7-8700K @ 5.0GHz	i7-8700K @ 5.0GHz	i9-9900K @ 5.0GHz
GPU	GTX 980	GTX 1080	GTX 1080	Vega 56	Vega 56
Sleep	4.4W	4.4W	2.9W	2.9W	2.9W
Idle	80W	80W	89W	98W	104W
Full load	190-193W	190-193W	256-259W	287-290W	304-308W

\*All four CPUs were delidded.

\*\*System has 3x3.5" hard drives and 3x2.5" SSD.

\*\*\*Vega 56 fan was running higher than normal at time of testing with i7-8700K.

\*\*\*\*A USB 3.1 gen 2 PCI-e card was added and one of the 120mm fans were replaced by an NF-A12-25 PWM in the i9-9900K system.

## What works:

- Quick Sync
- Sleep/Wake
- HEVC
- Wi-Fi
- Bluetooth
- Audio
- Ethernet
- 10GbE
- 10GBase-T w/ AQC107
- Wake-On-LAN
- AirPlay
- iBooks
- iMessage
- Continuity
- Handoff (including handing off phone calls from iPhone)
- AirDrop
- Night Shift
- Power Nap
- USB 3.1 Gen 2 ports (proof in post [#755](#))
- Enabling System Integrity Protection (better known as SIP).
- FileVault
- [MSR 0xE2](#)
- Dual monitors (don't have enough monitors to test triple, quad, etc)

## What doesn't work or works weirdly:

- ~~Still not sure if all RAM is working properly.~~ (RAM has now been confirmed to be working fine.)
- ~~Although Sleep/Wake is working great, the Energy Saver System Preference pane is weird. It's not showing an option for Power Nap.~~ (*Fixed with proper power management.*)
- ~~I tried to use a Dell DW1830 M.2 Wi-Fi/Bluetooth card in place of the included Intel card. Wi-Fi worked immediately with the built-in Apple drivers, however, bluetooth was not detected at all.~~ (*Fully working now.*)
- ~~About This Mac will show Processor as Unknown, but that's purely cosmetic and all cores work fine. There's a way to edit the "Unknown" text but I didn't bother.~~ (Fixed as of High Sierra 17G2112.)
- ~~Answering phone calls from iPhone is not working. Not sure why. Will continue to investigate.~~ (*Working now. Had to set input and output to "use System Setting."*)
- PCI section of System Information will not provide any PCI-e card info. This is how it is on real iMacs too. It's possible to populate it but it's strictly cosmetic and requires customized SSDTs or DSDT. This thread does not provide support for this. RehabMan confirmed that it is strictly cosmetic [here](#).
- Wireless diagnostic will cause hard reboot. I tested with several hackintoshes and got the same result. I assume whatever hardware check it's doing is simply incompatible with hacks.
- ~~DRM content from iTunes, Netflix, Amazon Video. Some iTunes videos work for me while others don't. I don't know why and never followed up, I watch my videos using Apple TV.~~

I haven't tried but others have reported that Netflix and Amazon Video will only work with Chrome browser. ~~**Disabling IGPU and using iMacPro1,1 system definition seems to be the most reliable way to get DRM content to work.**~~ Some have reported success with [NoVPAJpeg](#), but that disables hardware decoding... I have not tested this. Another workaround is just to watch DRM content in an Windows virtual machine... DRM works perfectly when using iMacPro1,1 system definition.

#### **Update #1 (January 20, 2018):**

Spoiler: Depreciated. Native NVRAM restored with latest release of my EFI folders.

#### **Update #2 (January 26, 2018):**

Spoiler: January 26, 2018

#### **Update #3 (February 22, 2018):**

Spoiler: February 22, 2018

#### **Update #4 (February 28, 2018):**

Spoiler: February 28, 2018

#### **Update #5 (March 9, 2018):**

Spoiler: March 9, 2018

#### **Update #6 (March 28, 2018):**

Spoiler: March 28, 2018

#### **Update #7 (March 31, 2018):**

Spoiler: March 31, 2018

#### **Update #8 (April 6, 2018):**

Spoiler: April 6, 2018

#### **Update #9 (April 21, 2018):**

Spoiler: April 21, 2018

#### **Update #10 (April 26, 2018):**

Spoiler: April 26, 2018

**Update #11 (June 2, 2018):**

Spoiler: June 2, 2018

**Update #12 (June 20, 2018):**

Spoiler: June 20, 2018

**Update #13 (July 10, 2018):**

Spoiler: July 10, 2018

**Update #14 (July 16, 2018):**

Spoiler: July 16, 2018

**Update #15 (July 21, 2018):**

Spoiler: July 21, 2018

**Update #16 (August 5, 2018):**

Spoiler: August 5, 2018

**Update #17 (August 17, 2018):**

Spoiler: August 17, 2018

**Update #18 (August 23, 2018):**

Spoiler: August 23, 2018

**Update #18 (September 14, 2018):**

Spoiler: September 14, 2018

**Update #19 (September 22, 2018):**

Spoiler: September 22, 2018

**Update #20 (September 26, 2018):**

Spoiler: September 26, 2018

### Update #21 (October 6, 2018):

Spoiler: October 6, 2018

### Update #22 (October 27, 2018):

Spoiler: October 27, 2018

### Update #23 (November 7, 2018):

Spoiler: November 7, 2018

### Update #24 (January 7, 2019):

Spoiler: January 7, 2019

### Update #25 (January 27, 2019):

Spoiler: January 27, 2019

### Update #26 (March 3, 2019):

Spoiler: March 3, 2019

### Update #27 (April 4, 2019):

Spoiler: April 4, 2019

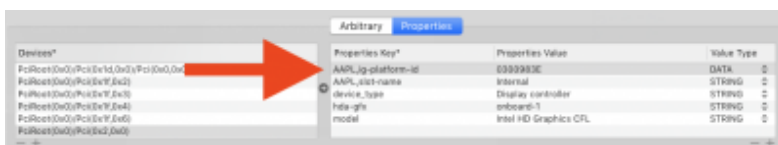
### Update #28 (April 23, 2019):

Spoiler: April 23, 2019

### Update #29 (May 15, 2019):

~~As of macOS 10.14.5, 9th-gen CPU users should set ig-platform-id to 3E980003 and remove WhateverGreen.kext. Be aware that removing WhateverGreen breaks iTunes DRM for me.~~

~~As far as I know, this is only needed for 9th-gen CPU users because 8th-gen IGPU is still being detected correctly.~~



Alternatively, users can disable IGPU in BIOS and use iMacPro1,1. The benefits of this is that iTunes, Netflix, Amazon Video, etc DRM works. However, the hardware of Z370 is much closer



to iMac than iMac Pro. The choice is yours...

~~9th gen CPU users who are using IGPU only (as in no dGPU) should use ig-platform-id 3E9B0007 and device-id 3E9B0000.~~

\*Clover r4930 fixed this... sort of.. It auto detects the IGPU on 9th gen CPUs but spoofs 8th gen ig-platform-id. Users can, of course, use the above methods to inject the correct values.

### **Update #30 (May 21, 2019):**

Updated EFI folder to r5.0.1.

- Clover updated to r4930 (this release fixes auto detection of 9th gen IGPUs.)
- Updated config.plist to include latest USB 15 port limit patch

\*As stated in Update #29, while the auto detection is working again, it spoofs 8th gen ig-platform-id.

### **Update #31 (May 27, 2019):**

Updated EFI folder to r5.0.2.

- Clover updated to r4934
- Latest Lilu/WhateverGreen/AppleALC included

Reminder: If you have multiple hackintoshes, you can create a single USB macOS installer that will work for all your hacks. It's always recommended to keep a USB installer around for emergency situations if/when you are unable to boot from your main system drive.

Instructions are [here](#).

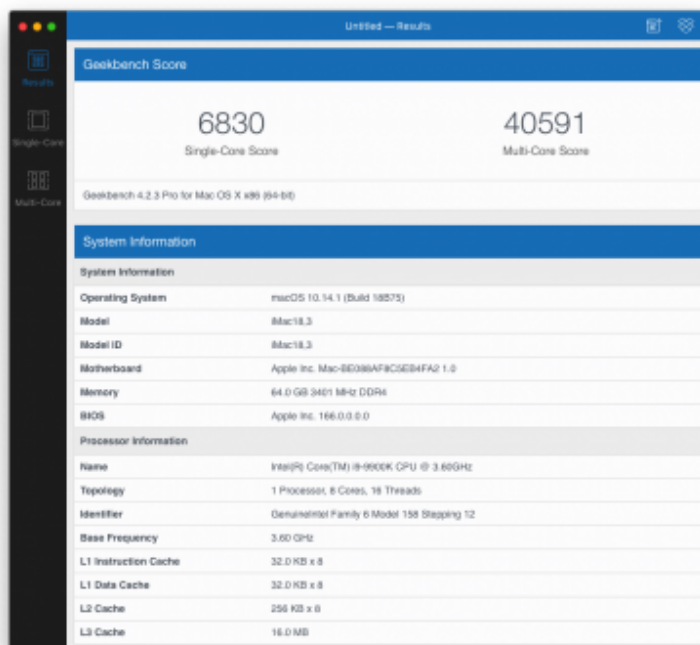
Spoiler: Depreciated. Benchmarks from my old GTX 1080.

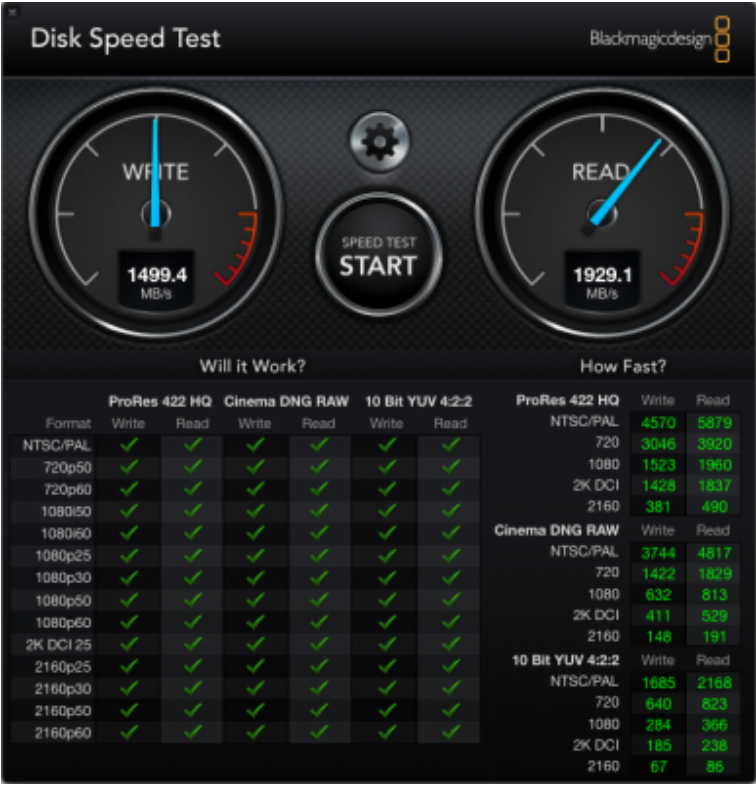
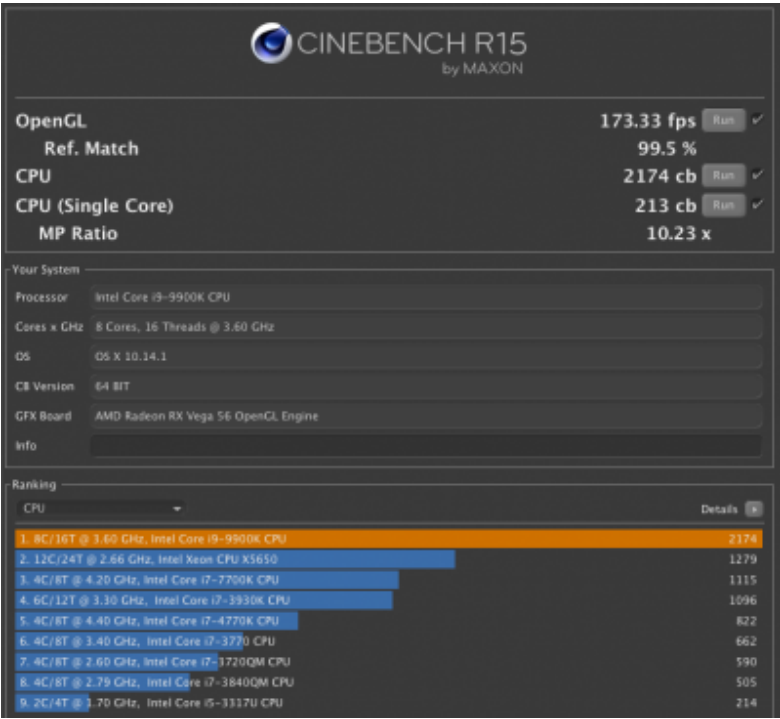
Spoiler: Depreciated. Benchmarks from my old i7-8700K.

Spoiler: Depreciated. Benchmarks of my RX Vega 56 at stock settings.

Spoiler: Depreciated. Benchmarks of my RX Vega 56 at stock settings after liquid metal application.

\*All benchmarks taken with CPU clocked at 5GHz.

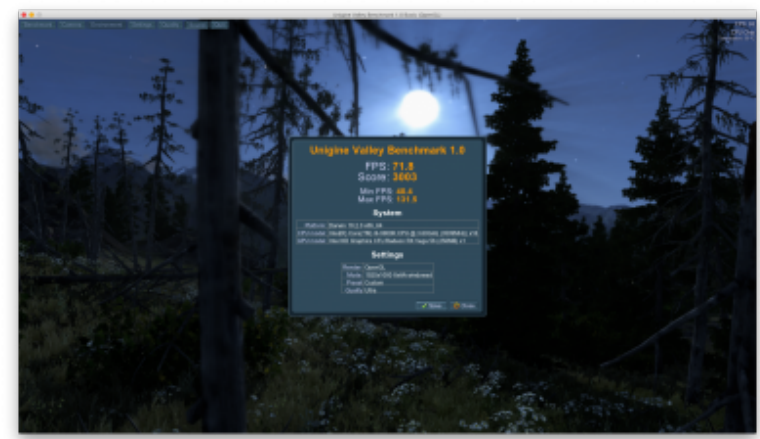




The screenshot shows the Windows Task Manager Performance tab. The 'Uptime' section indicates the system has been running for 33 days, 7 hours, and 9 minutes. Below this, there are icons for various system components: CPU, Memory, Disk, Network, and Storage. The 'Power' section shows the system is 'Powered On' and provides the following statistics:

Category	Value
Powered On	Apr 29, 2018 at 7:37 AM
Time Awake	11 days, 0 hours, 3 minutes
Time Sleeping	22 days, 7 hours, 6 minutes










My current Vega 56 settings:  
1590MHz core @ 1010mV, 920MHz HBM, 50 power limit, and 55 target temperature.





\*Various benchmarks with my Vega 56 undervolted, overclocked, and with power limit changes can be found on post [#3091](#).

## Attachments

 <b>AsAmiShim.efi.zip</b> 11.9 KB Views: 938	 <b>EFI for Intel UHD...</b> 33.7 MB Views: 1,419	 <b>VGTab-en.zip</b> 429.5 KB Views: 1,962	 <b>EFI Unified 4.3.2 ...</b> 27.4 MB Views: 1,383
 <b>Strix Z370G USB ...</b> 931 bytes Views: 824	 <b>Strix Z370G USB ...</b> 5.9 KB Views: 720	 <b>EFI Unified r4.5.1 ...</b> 27.5 MB Views: 1,553	 <b>EFI Unified r5.0 (...)</b> 27.8 MB Views: 359
 <b>EFI Unified r5.0.2 ...</b> 29 MB Views: 212			

Last edited: Saturday at 10:50 PM

agraphphoto, Shanghaiaddy, mrB0nes and 73 others



glasgood

Dec 8, 2017

#2

Last edited: Dec 16, 2017

morganb



pastrychef

Moderator

Dec 8, 2017

#3

When I compared other Z370 mATX motherboards, all the other ones seemed to be missing one thing or another, including lack of USB 3.1 Gen 2, only 4 SATA connections, lack of M.2 Wi-Fi/Bluetooth, etc. This Strix Z370-G had the most features.

I had no problems booting with all four RAM slots populated. However, only 32GB was initially recognized. I edited my config.plist and populated the SMBIOS/Memory section to get all 64GB recognized. I don't know if this is cosmetic or if all 64GB is actually seen now.

I haven't done a clean install yet. I simply modified my config.plist and changed a few kexts on my old Gene build prior to taking it out of commission, then I transplanted the SSD to the Strix and have been continuing to use my existing macOS install. I haven't done a true clean install in over a decade and have simply transplanted my boot drive each time I changed systems.



Yes, I was aware of the VDroop and LLC issues and updated the BIOS immediately. I followed the video I linked above to overclock to 5GHz.

mugs and esafeddie



glasgood

Dec 8, 2017

#4

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Last edited: Dec 16, 2017



pastrychef

Moderator

Dec 8, 2017

#5

I tested a Dell DW1830 M.2 Wi-Fi/Bluetooth card. The Wi-Fi worked with the native drivers, however, Bluetooth did not show up. I have ordered a BCM942602 card pulled from a 2014 MacBook Air along with an M.2 adaptor to see if I will have better luck with that card. I really want to utilize the M.2 slot for Wi-Fi/Bluetooth to keep the internals a bit neater.

I forgot to check if the 32GB was recognized a dual channel.



glasgood

Dec 8, 2017

#6

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Last edited: Dec 16, 2017



pastrychef

Moderator

Dec 8, 2017

#7

The BCM943602 from MacBook Airs use only two antennas. The Dell DW1830 that I tested uses three antennas. I have spare antennas that I connected to the DW1830 when I tested it.



glasgood

Dec 8, 2017

#8

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pastrychef



glasgood

Dec 9, 2017

#9

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Last edited: Dec 16, 2017



pastrychef

Moderator

Dec 9, 2017

#10

My pleasure!! Glad I was able to help!!

Have you applied the *proper* USB 15 port limit fix? I've already done all the tedious work. It should be a breeze for everyone else now.

Note that if you use:

Code:

```
uia_exclude=HS07;HS08;HS09;HS10;HS11;HS12;HS13;SS07;SS08;SS09;SS10
```

All USB ports will be active except for the 2 USB 2 ports in the rear and 3 out of 4 of the internal USB2 ports from the internal headers. The fourth can be used for Bluetooth with Wi-Fi/Bluetooth adaptors.

Last edited: Dec 25, 2017

Home33

1 of 686

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