

Howto: 15" MacBook Pro 2010 with Handoff/Airdrop/Continuity

Upgrade to OS X 10.10.x Yosemite with Bluetooth card

BCM94331PCIEBT4CAX and AirPortBrcm4360 binary modded:

- **Airdrop** ↔ iOS 8 ok
- **Handoff** ↔ iOS 8 ok
- **Continuity** ↔ iOS 8 ok

Write in terminal: `ioreg -l | grep "board-id" | awk -F\" '{print $4}'`

if you can read:

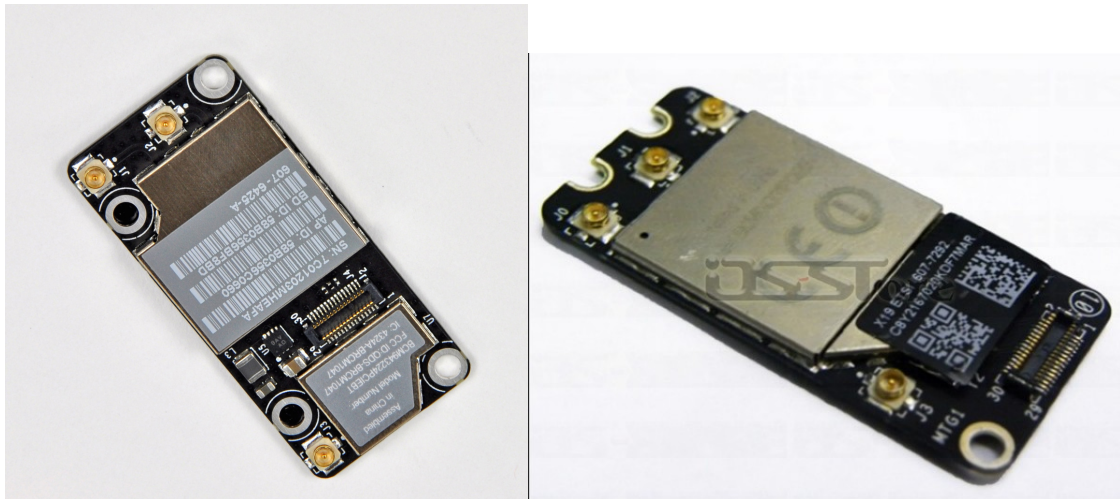
- Mac-F22586C8 (15" MacBookPro Mid 2010) than the modded kext and guide is good for you
- If you read another value than you have to edit manually the kext

!!! Don't have to modify bluetooth kext, just AirPortBrcm binary (howto at end).

Change the airport/bluetooth card

Find and buy **BCM94331PCIEBT4CAX** card (the card BCM94331PCIEBT4AX is not good!)

Here the our card and the new card



how we can see the new card is a little bit different:
J0 antenna plug that we don't have
the mini plug is moved a few cm

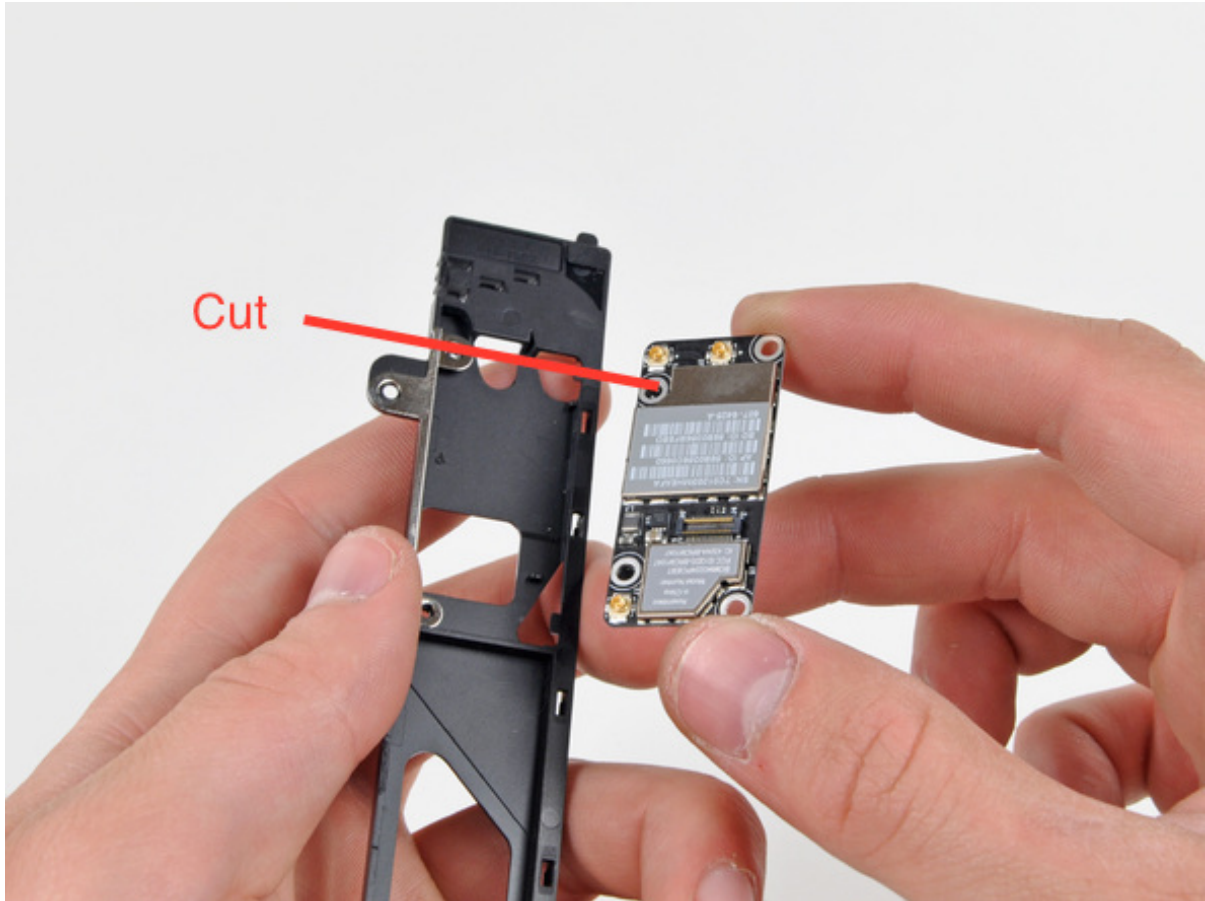
Find and buy 1 additional antenna or leave J0 empty

Here you can see how to disassemble the macbook

<https://www.ifixit.com/Guide/MacBook...placement/3040>

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Cut the plastic support of the airport card. You have to cut it otherwise does not enter



At this point I was able to tighten just one screw to replace the airport card in his support.

You should try to reassemble in some way
Put it back together and turn on the MacBook.

Now we have Bluetooth and Wifi both working (but not Airdrop, Handoff)

Kext Modding

1. application/utility/terminal,
write: `sudo nvram boot-args="kext-dev-mode=1"`
2. copy kext to desktop as backup – located in:
/System/Library/Extensions IO80211family.kext
3. reboot → **!!! at this time we don't have wifi working!**

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4. Copy modified kext IO80211Family.kext (Mac-F22586C8 only!!!) in system/library/extension
Kext: <http://speedy.sh/xN5A8/IO80211Family.kext.zip>
App „Kext Drop“: <http://www.cindori.org/software/kextdrop/>
5. repair disk permissions Application/utility/utility disk
6. write in the terminal:
`sudo kextcache -system-prelinked-kernel`
`sudo kextcache -system-caches`
7. This is the end: reboot your macbook, now we have all new functions working.
8. If not, try to log out iCloud-iMessage-Facetime from MacBook and iPhone and then login again
9. I have also added another antenna, connected to J0 and I stuck it inside the MacBook.

Howto modify AirPortBrcm binary

I don't have modify bluetooth kext, just AirPortBrcm binary.
This is how to (a bit difficult to explain):

```
ioreg -l | grep "board-id" | awk -F\" '{print $4}'
```

only show: Mac-F22586C8

but this value if inserted give error to load 4360.kext

I did a lot of tests and in the end I realized that I need to have:

Mac-F22586C8.....

But we can't insert just this value.

because if we insert ascii . (point) then we doesn't have in binari value 00 (zero zero)

- open AirPortBrcm4360 binary with App „0xED“ (<http://www.suavetech.com/0xed/>)
- we can see 2 columns: left for binary, right for ascii (i think so)
- Search first Mac- number (for esemple Mac-00F345FD546773FA.)

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- Put the cursor on the . (point) in the right columns and delete all number.
- Now we have: Mac-.
- write only F22586C8 (IN THE RIGHT COLUMNS)
- Now we have Mac-F22586C8.
- Look the left columns for cursor, click on it
- Now we can write eight pairs of zero: 00 00 00 00 00 00 00 00
- if you look now the right columns we can see:
Mac-F22586C8.....
(9 POINT WITH GREY BACKGROUND IN TOTAL)
- For safety I made this change to the first and last Mac- found

