

Catalina AirPortBrcm4360 manual fix by jackluke

allows to use the stock Catalina IO80211Family.kext with a little binary patching

This method should be valid for all the Broadcom HighSierra/Mojave previous supported AirPort Wifi cards:

also enable and make working again the AirDrop feature on Catalina unsupported Mac (with at least a Penryn Core2Duo and a Broadcom Wifi card 4331)

From a Mojave Terminal or HighSierra you should detect to use one of two of these drivers:

**kextstat | grep AirPort**

*com.apple.driver.AirPort.Brcm4331*

The key is to use only this: *com.apple.driver.AirPort.Brcm4360*

Here is how-to:

Original Catalina Wifi kext place:

*/System/Library/Extensions/IO80211Family.kext/Contents/Plugins/  
AirPortBrcm4360.kext/Contents/MacOS/*

Before start put in write mode the Catalina system folders from Terminal:

**sudo mount -uw / ; killall Finder**

**open /System/Library/Extensions/IO80211Family.kext/Contents/Plugins/  
AirPortBrcm4360.kext/Contents/MacOS/**

Open "AirPortBrcm4360" unix exec with an hex editor search for this ASCII "**Mac-**" or its hex "**4d 61 63 2d**"

Search from inside the Catalina AirPortBrcm4360 driver:

1) These are for AirPort main functions P2P etc:

```
4D61632D 30304245 36454437 31453335 45423836 004D6163 2D374446
32413342 35453544 36373145 44004D61 632D4643 30324539 31444444
33464136 4134004D 61632D41 43453841 31374330 44453833 31333700
4D61632D 30333141 45453444 32344246 46304231 004D6163 2D463635
41453938 31464641 32303445 44004D61 632D4336 45464136 33393632
46433645 4130004D 61632D41 46443841 39443934 34454134 38343300
4D61632D 43334543 37434432 32323932 39383146 004D6163 2D364630
31353631 45313643 37354430 36004D61 632D3442 37414337 45343339
34353539 3745004D 61632D36 36463335 46313946 45324130 44303500
4D61632D 32453646 41423936 35363646 45353843 00
```

2) This is for the wireless 802.11 autcountry localize

```
4D61632D 34373344 33314541 42454239 33463942 004D6163 2D454532
45424434 42393042 38333941 3800
```

3) This is for the ARPT: Wake Reason

```
4D61632D 30364631 31463131 39343644 32374335 004D6163 2D444231
35424435 35363834 33433832 30004D61 632D4238 30394333 37353744
41394242 3844004D 61632D36 35434537 36303930 31363537 39394100
```

Need to replace the previous different Mac-boardID to include your Mac-boardID  
(whitelist your machine)

From Catalina Terminal to get your boardID:

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

Example output: Mac-F22586C8 (for a MacBookPro6,2)

**Mac-F22586C8** in hex: **"4d 61 63 2d 46 32 32 35 38 36 43 38"**

add after some octet 00 to fill empty spaces since recent Mac use a longer boardID  
string

1) Fix Broadcom P2P and other functions:

```
4D61632D 46323235 38364338 00000000 00000000 004D6163 2D463232
35383643 38000000 00000000 00004D61 632D4632 32353836 43380000
00000000 0000004D 61632D46 32323538 36433800 00000000 00000000
4D61632D 46323235 38364338 00000000 00000000 004D6163 2D463232
35383643 38000000 00000000 00004D61 632D4632 32353836 43380000
00000000 0000004D 61632D46 32323538 36433800 00000000 00000000
4D61632D 46323235 38364338 00000000 00000000 004D6163 2D463232
35383643 38000000 00000000 00004D61 632D4632 32353836 43380000
00000000 0000004D 61632D46 32323538 36433800 00000000 00000000
4D61632D 46323235 38364338 00000000 00000000 00 00
```

2) Fix autcountry:

```
4D61632D 46323235 38364338 00000000 00000000 004D6163 2D463232
35383643 38000000 00000000 0000
```

3) Fix ARPT:

```
4D61632D 46323235 38364338 00000000 00000000 004D6163 2D463232
35383643 38000000 00000000 00004D61 632D4632 32353836 43380000
00000000 0000004D 61632D46 32323538 36433800 00000000 00000000
```

Save your edited AirPortBrcm4360 (no need to codesign)

After replaced those with your boardID from Catalina Terminal:

```
sudo chown -R 0:0 /S*/L*/E*
sudo chmod -R 755 /S*/L*/E*
sudo kextcache -i /
```

Reboot and both stock Catalina AirPort and AirDrop should work on your machine.