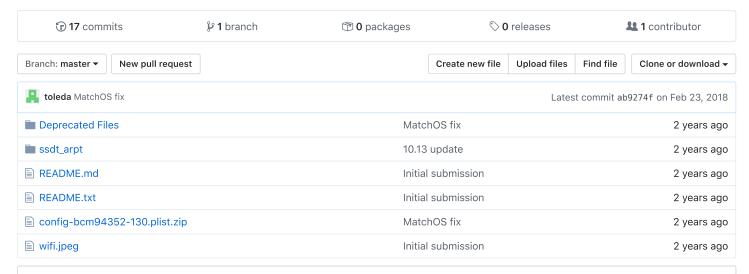
toleda / wireless_broadcom

macOS Broadcom WiFi and Bluetooth



■ README.md



wireless_broadcom

macOS Broadcom WiFi and Bluetooth

WiFi and Bluetooth working out of box on macOS with Apple branded Broadcom BCM94360. Enables half mini and M.2 BCM4352 on High Sierra with method described below. Credit: RehabMan

Updates

1. 12/26/2017 - High Sierra Broadcom WiFi and Bluetooth Support

Previous Repo: https://github.com/toleda/airport_half_mini (Deprecated)

Broadcom WiFi + BT

- 1. Half mini/BCM94360HMB/AzureWave AW-CB160H Credit: Skvo, Post #758/[Guide] Airport PCIe Half Mini v2
- 2. PCIe/BCM94360CD/BCM9331CD native WiFi/ac and BT4LE (PCIe 1x, not HM)
- 3. Half mini/BCM94352 HMB/AzureWave AW-CE123H/DW 1550 supports WiFi/ac and BT4LE
- 4. M.2/BCM94352Z HMB/AzureWave AW-CE162NF/DW1560 supports WiFi/ac and BT4LE
- 5. Half miniBCM943224 HMB supports WiFi and BT3

User Responsibilities

- 1. Supported WiFi card sources the usual
- 2. WiFi and Bluetooth Antennas
- 3. Mini PCIe to PCI/PCIe adapters (adapter must include motherboard USB connector for working BT)
- 4. Clover_v4305 or newer

Broadcom WiFi/Bluetooth Repo

Broadcom WiFi/Bluetooth Installation/10.13+ Note: Requires AirPortBrcm4360.kext and BT4LE - AirPortBrcmNIC-MFG.kext - not applicable

Step 1/Enable WiFi

- 1. README: https://github.com/RehabMan/OS-X-Fake-PCI-ID
- 2. Download: https://bitbucket.org/RehabMan/os-x-fake-pci-id/downloads/
- 3. Install with kext installer to /System/Library/Extension:
 - i. FakePCIID.kext
 - ii. FakePCIID_Broadcom_WiFi.kext

Step 2/Enable BT

- 1. README: https://github.com/RehabMan/OS-X-BrcmPatchRAM
- 2. Download: https://bitbucket.org/RehabMan/os-x-brcmpatchram/downloads/
- 3. Install to EFI/CLOVER/kexts or kext installer to /System/Library/Extensions:
 - i. BrcmFirmwareRepo.kext
 - ii. BrcmPatchRAM2.kext

Step 3/Optional Features

- 1. Enable Handoff/Hot Spot (94352 only) Credit: lisai9093 Binary patch: IOBluetoothFamily
 - i. Find: 48 85 FF 74 47 48 8B 07
 - b. Replace: 41 BE 0F 00 00 00 EB 44
- Installation/Clover patch
 - 1. Download (View Raw):config-bcm94352-120.plist.zip
 - 2. Paste patch to config.plist/KernelAndKextPatches/KextsToPatch
- BT4LE-Handoff-Hotspot
- 2.

Country Code (10.12/10.11/10.10 - all versions)

- 1. Country Code/Required 2. Native: US/FCC (Hex: 55 53) 2. If not US/FCC, see Sebinouse, see #2 below 3. Special case, see #a, credit: jaymonkey, Post #2084 1. Solves wake from sleep WiFi performance issue
- 2. ROW Country Code, credit: Sebinouse, Post #1159 (select one method)
 - i. config-bcm94352...plist (see Repo)
 - a. edit 5GHz-US/Replace/55 53 (US) to xx xx (CC)
 - b. ASCII/Hex/Base64
 - ii. wireless_bcm94352...command (see Repo)
 - a. CC prompt

BCM94352 5 GHz/Handoff Patch (10.12+)

Credit: the-darkvoid

- 1. Clover/kext patch
 - i. Download config-bcm94352-... (select View Raw)

ii. Paste 3 Patches to config.plist/KernelAndKextPatches/KextsToPatch

BCM94352 5 GHz/Handoff Patch (10.11+)

Credit: Dokterdok, the-darkvoid, Sebinouse

Select 1 or 2, not both

- 1. Kext/binary patch
 - i. Download wireless_bcm94352-... (select View Raw)
 - ii. Double click Downloads/wireless_bcm94352-...command
- 2. Clover/kext patch
 - i. Download config-bcm94352-... (select View Raw)
 - ii. Paste 3 Patches to config.plist/KernelAndKextPatches/KextsToPatch

BCM94352 5 GHz/Handoff Patch (10.10+)

Credit: Dokterdok, the-darkvoid, Sebinouse

Select 1 or 2, not both

- 1. Kext/binary patch
 - i. Download wireless_bcm94352-... (select View Raw)
 - ii. Double click Downloads/wireless bcm94352-...command
- 2. Clover/kext patch
 - i. Download config-bcm94352-... (select View Raw)
 - ii. Paste 3 Patches to config.plist/KernelAndKextPatches/KextsToPatch

BCM94352 5 GHz Patch (10.9+)

Credit: Skvo

Select 1 or 2, not both

- 1. Kext/binary patch
 - i. Download wireless_bcm94352-... (select View Raw)
 - ii. Double click Downloads/wireless_bcm94352-...command
 - iii. See Terminal Saved Output. . . (above)
- 2. Clover/kext patch
 - i. Download config-bcm94352-... (select View Raw)
 - ii. Add 3 Patches to config.plist/KernelAndKextPatches/KextsToPatch

Bluetooth 4LE (10.11+)

- 1. 10.11 USB Issues/no BT
 - i. Fix USB problem
- 2. BT injection RehabMan/OS-X-BrcmPatchRAM (2 kexts required)
 - i. REAMDME BrcmPatchRAM -- RehabMan
 - ii. Download BrcmPatchRAM -- RehabMan
 - iii. Install 2 kexts
 - a. BrcmFirmwareRepo.kext
 - b. BrcmPatchRAM2.kext
- 3. Installation (a or b, not both)
 - i. Clover/Chameleon use kext installer
 - a. System/Library/Extensions/
 - b. Library/Extensions/
- 4. Working
 - i. Asus BCM94352 (0b05/17cf)
 - ii. Azurewave CE-123H (13d3/3404)

Bluetooth 4LE/4/3 (10.10+. 10.9+)

- 1. REAMDME BrcmPatchRAM -- RehabMan
- 2. Download BrcmPatchRAM -- RehabMan
- 3. BrcmPatchRAM.kext Installation (Select one method)
 - i. Clover/Chameleon System/Library/Extensions/
 - a. use kext installer
 - ii. Clover EFI/CLOVER/kexts/10.10 or /10.9
- 4. Working
 - i. Asus BCM94352 (0b05/17cf)
 - ii. Azurewave CE-123H (13d3/3404

Requirement (+ all)

- 1. OS X Versions (+ all)
 - i. 10.11+/El Capitan
 - ii. 10.10+/Yosemite
 - iii. 10.9+/Mavericks
 - iv. 10.8.5/Mountain Lion

Solution does not work, 10.8.4 or earlier

- 2. Boot Flags/Boot failure may result if ignored
 - i. 10.11+/Disable SIP/set, restart, install, enable SIP, restart
 - a. CLOVER/config.plist/RtVariables/
 - a. BooterConfig/0x28
 - b. CsrActiveConfig/0x3
 - b. Chameleon Extra/org.chameleon.Boot.plist
 - a. CsrActiveConfig=3
 - ii. 10.10+/Allow unsigned kexts/set, restart, install
 - a. Clover/config.plist/
 - a. Boot/Arguments/kext-dev-mode=1
 - b. Chameleon/Extra/org.chameleon.Boot.plist/
 - a. Kernel Flags/kext-dev-mode=1

Installation/Configuration/Troubleshooting

[Guide] airport_half-mini_details.pdf.zip (above)

Tools

- 1. IOReg_v2.1 (select View Raw)
- 2. DPCIManger
- 3. MaciASL
- 4. Property List Editors
 - i. Xcode
 - ii. Property List Editor, PlistEdit Pro, TextEdit, etc.
 - iii. TextEdit, TextWrangler (last resort)
- 5. Clover Configurator
- 6. Clover Wiki

Problem Reporting (attach requested information)

- 1. Description of wireless problem
- 2. OS X version/motherboard model/BIOS version/processor/graphics
- 3. Procedure/Guide used
- 4. Copy of IOReg IOReg_v2.1/File/Save a Copy As..., verify file (Tools 1.)
- 5. Screenshots:
 - i. DPCIManager/Status (Tools 2.)

- ii. System Information/Hardware/Network/WiFi
- iii. System Information/Hardware/Bluetooth
- iv. System Information/Hardware/USB (Select Bluetooth device)
- 6. DPCIManager/Misc/Boot Log
- 7. MaciASL/File/Export Tableset As... (Tools 3.)
- 8. Terminal/Shell/File/Export Text As. . . /wireless_bcm...command
- 9. Chameleon
 - i. Extra/org.chameleon.Boot.plist
 - ii. DPCIManager/Misc/Boot Log
 - iii. Extra/dsdt.aml (if installed)
 - iv. Extra/ssdt.aml (if installed)
- 10. Clover
 - i. EFI/CLOVER/config.plist
 - ii. DPCIManager/Misc/Boot Log
 - iii. EFI/CLOVER/ACPI/Patched/dsdt.aml (if installed)
 - iv. EFI/CLOVER/ACPI/Patched/ssdt.aml (if installed)
- 11. Post to:
 - i. Airport InsanelyMac.com
 - ii. Airport tonymacx86.com

Credit

THe KiNG

Andy Vandijck

PikeRAlpha

Skvo

Dokterdok

the-darkvoid

Sebinouse

toleda https://github.com/toleda/airport_half_mini