



# 12+6-30pin Molex Adapter

## v2

2010-2012 Unibody Mac Mini (A1347)  
Installation Instructions

Thanks for purchasing a 12+6 adapter please follow the instructions below to install your adapter, if you have any issues or questions please contact [Support](#) or check the [FAQs](#)

**\*\*\*Please carefully read the [Compatibility Guide](#) before starting installation\*\*\***

## Time

The installation of the adapter is intricate, and will take at least 1.5Hrs.

## Preparation

Make sure you have a clean well lit workspace and have taken the appropriate anti-static precautions. Please read all the instructions carefully before proceeding.

You will need:

- 12+6 - 30pin Kit (you should have the adapter, 4 IPEX adapters, a piece of 3m VHB tape and 3 sizes of heat shrink)
- [Suitable 12+6 WiFi Card](#)
- Tape (kapton or thin electrical tape)
- This guide, preferably on another device

You will need the following tools:

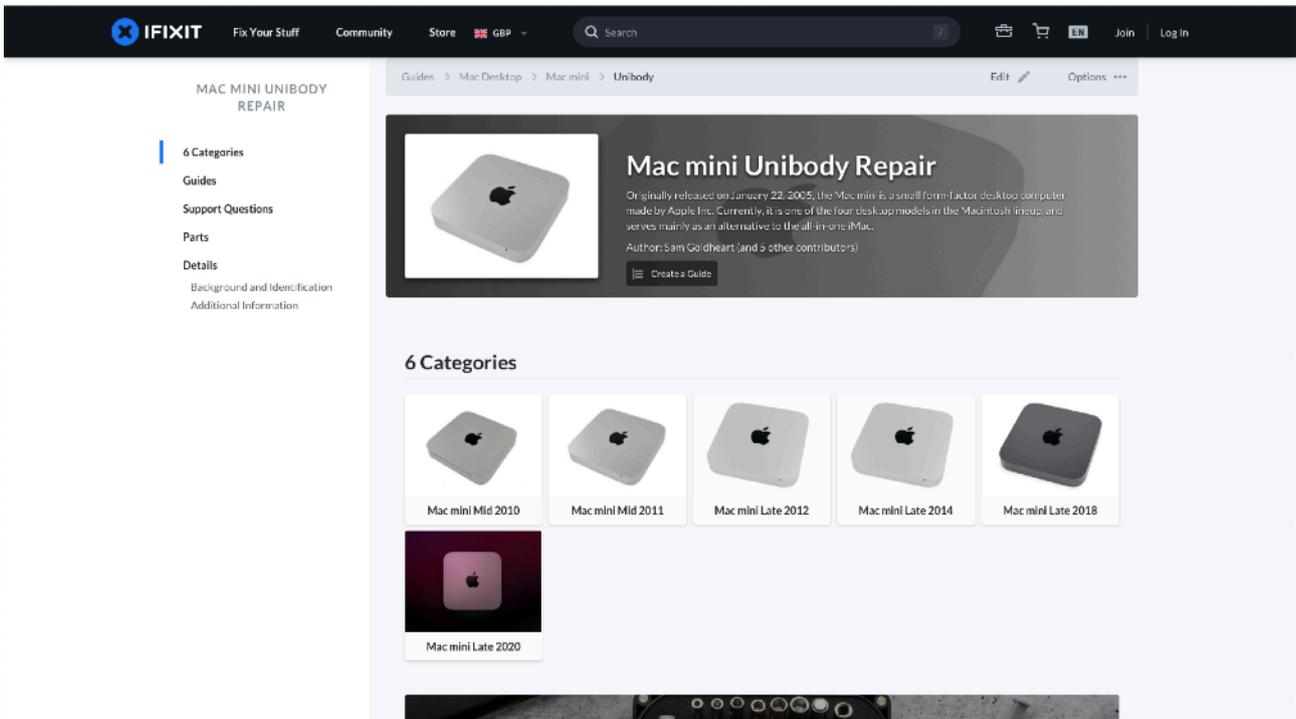
- T6 screwdriver
- T8 screwdriver
- Plastic Spudger
- Mac Mini logic board removal tool (optional)
- A hot air gun or hairdryer
- Scalpel or knife

**\*\*\*It is always good practice to back up your data and make sure your machine has been shut down properly before you start any work. This is a DIY unsupported modification to your Mac Mini that you are undertaking at your own risk and intriguing industries will take no responsibility for any damage or data loss\*\*\***

**\*\*\*The Pictures in this guide are from a 2012, the 2011 is identical and the 2010 only differs by the orientation of the 30pin Molex on the Logic Board\*\*\***

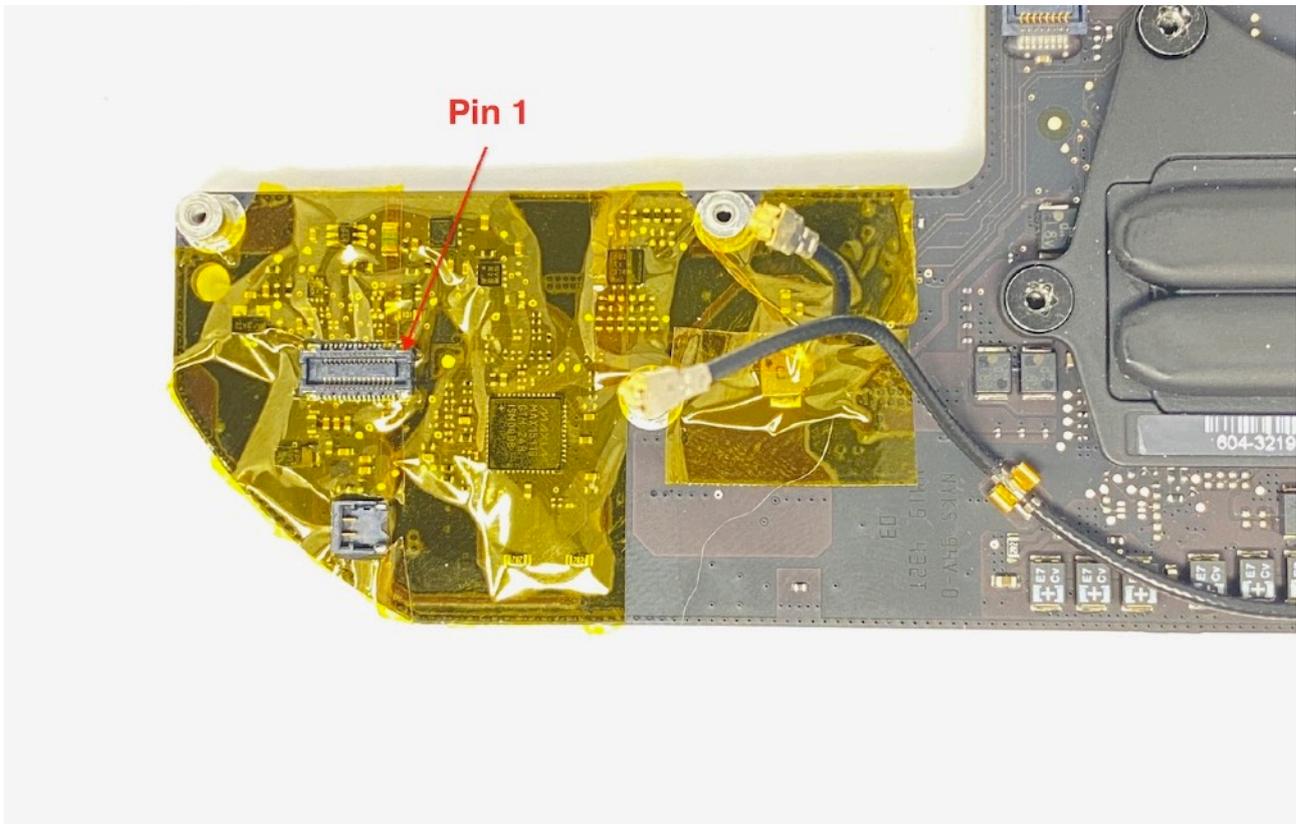
# 1. Remove the Logic Board WiFi card and speaker.

Follow the great [iFixit instructions](#) for your year, to remove the WiFi card and speaker from your Mac Mini.

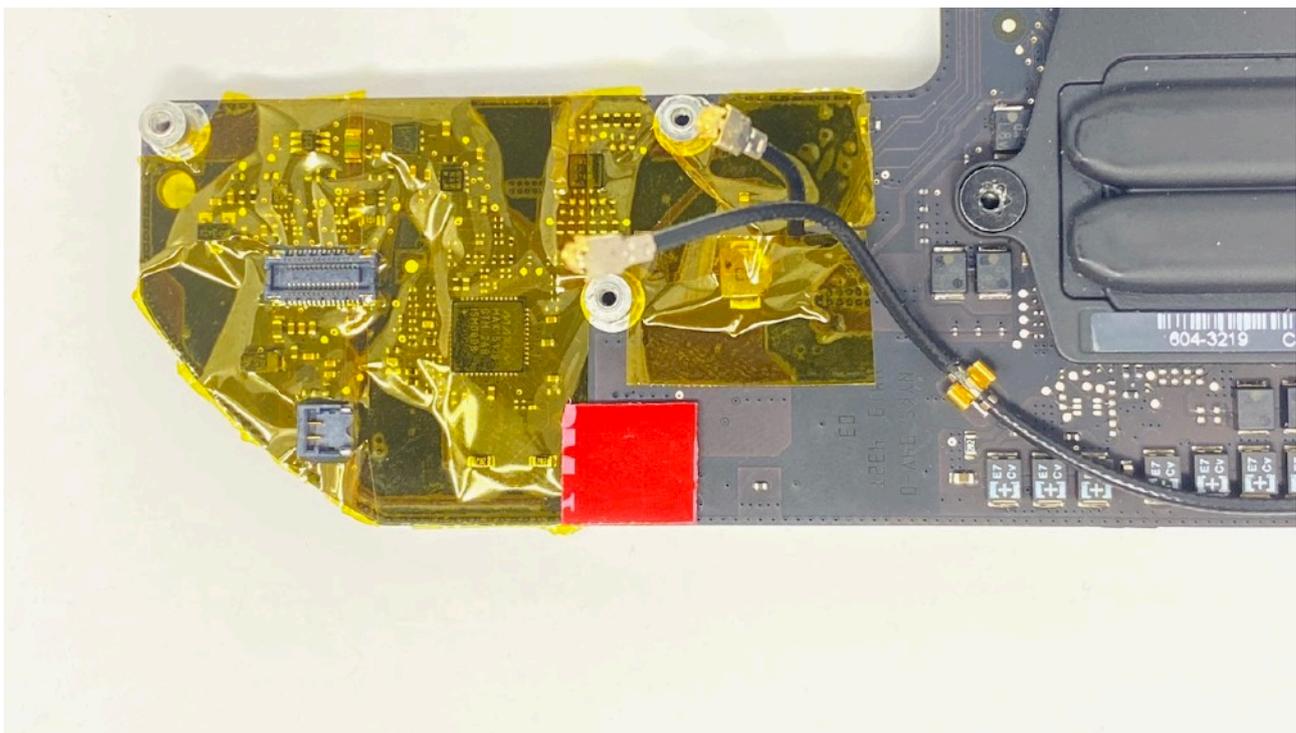


## 2. Insulate the installation area

a. Insulate the installation area as shown with either Kapton or electrical tape. Tape around or carefully cut the tape around the connectors for the WiFi card and speaker



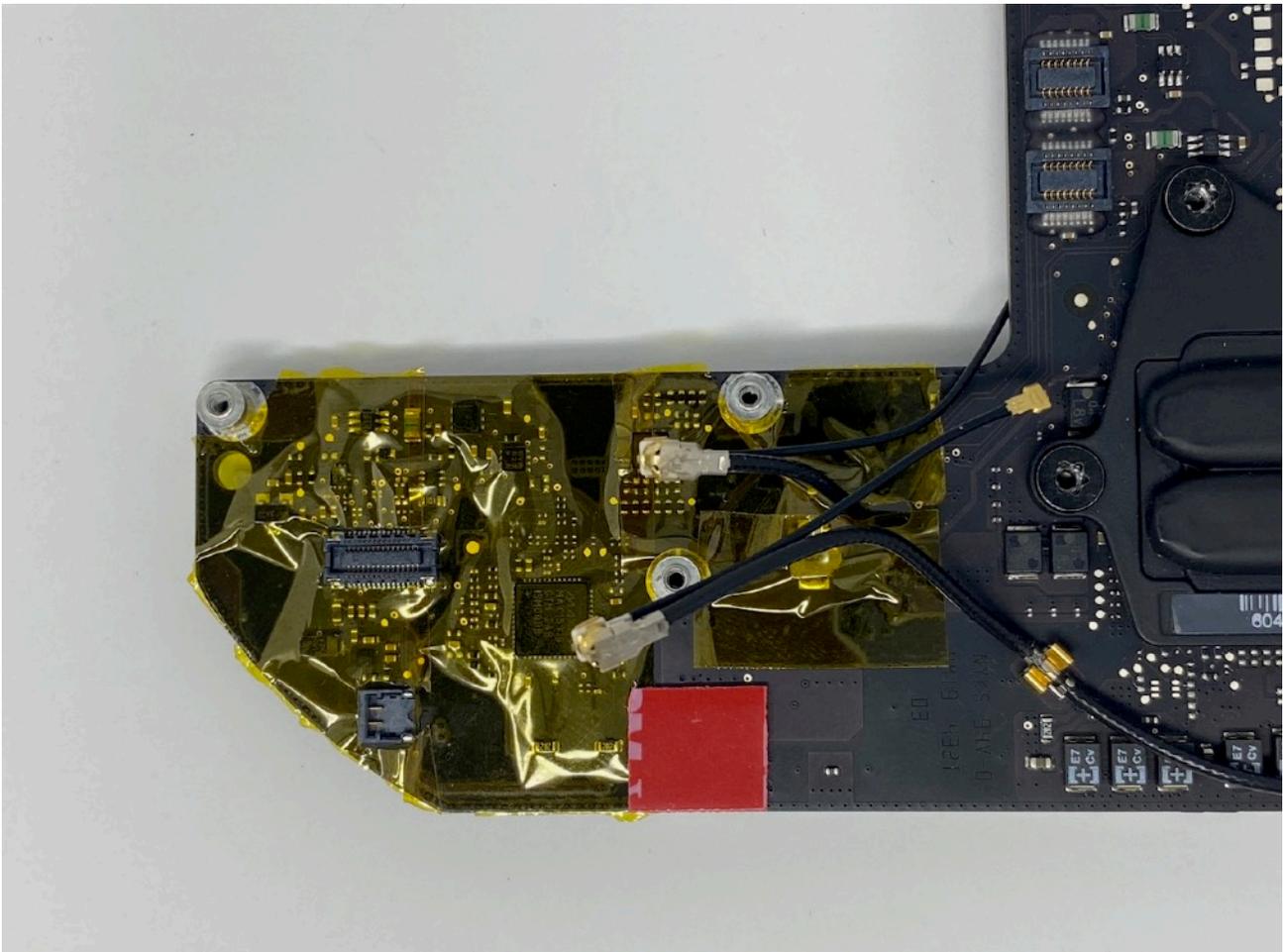
b. Add a small square of double sided tape if you plan to keep the internal speaker.



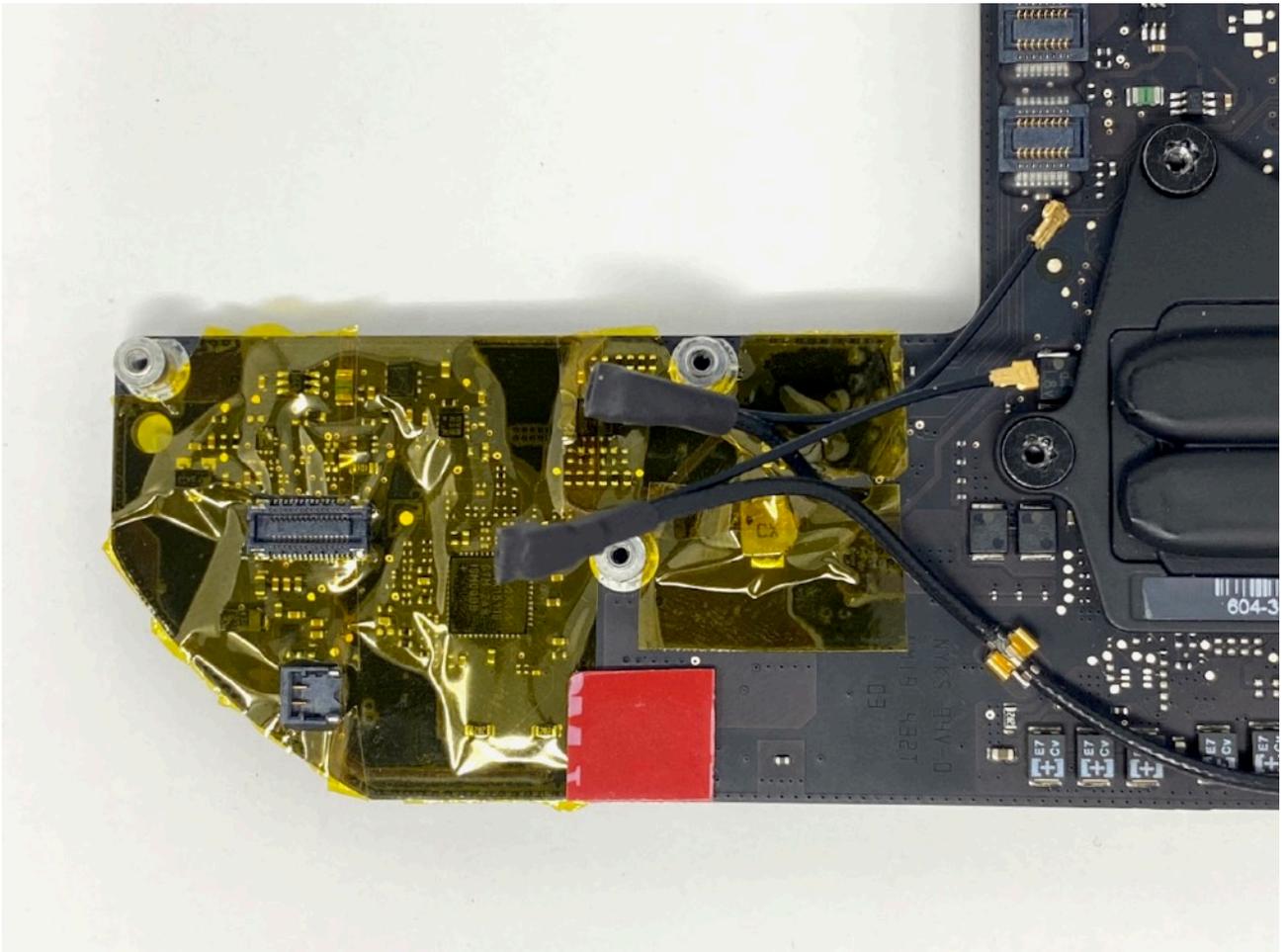
### 3. Install the IPEX antenna adapters

**\*\*\*These are fragile please be careful ! Try not to pull or bend at the conector, a spare is supplied with the kit if you have any issues. Once in the heat shrink they are much stronger\*\*\***

- a. You will have 3 antenna cables. Two from on the logic board and one on the drive cage. Depending on you choice of WiFi card you may also only need 2 of the antenna cables, if this is the case use on from the logic board and the one on the drive cage.
- b. Carefully attach the square end of the IPEX adapters to the antenna cables and the logic board that you are using. Attach them in the orientation in the picture below. This is best done by using your thumb and fore finger and carefully compressing them together. If the antenna cables have never been removed and reattached before they will be quite stiff. Be careful as the square end is very fragile and will break easily. Try not to bend the cables at the point they attach together. If one breaks they can be removed with the careful use of a set of tweezers or a knife, don't pull them out push the square end out

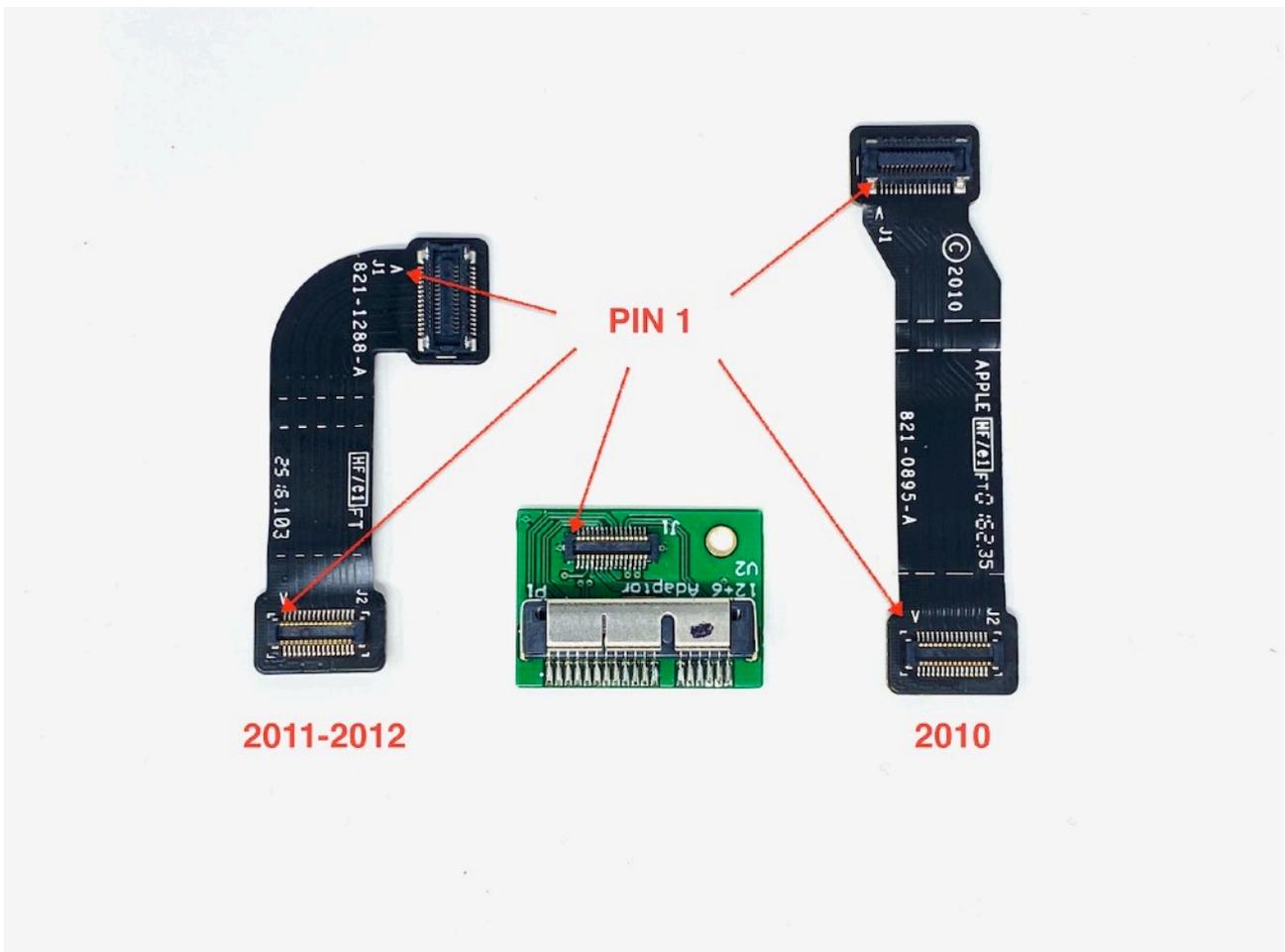


- c. Carefully slide the heat shrink over the connectors and shrink them either using a hot air gun or hair dryer. Be careful to direct the heat away from the Logic Board



#### 4. Install the 12+6 card into the adapter and attach the 30pin flex cable

Carefully install your Wifi card into the adapter it is keyed and will only fit one way make sure it is fully seated and attach the flex cable. The orientation of the cable is important Pin 1 as indicated in the picture below needs to match up.



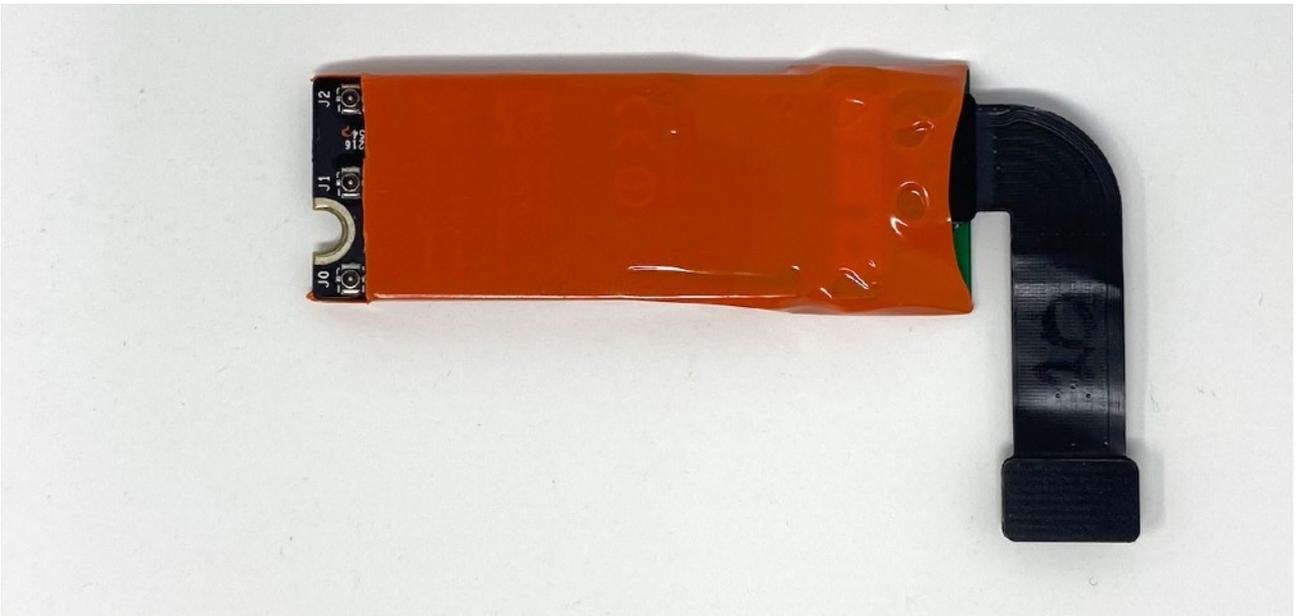


## 5. Insulate the WiFi Card and adapter

a. Using the **Orange** heat shrink cut it to so it completely covers the card and flex cable connector slide it over the card and adapter and shrink it either using a hot air gun or hair dryer. For this heat shrink start on a low temperature and slowly increase it until it has conformed to the shape the card and adapter.

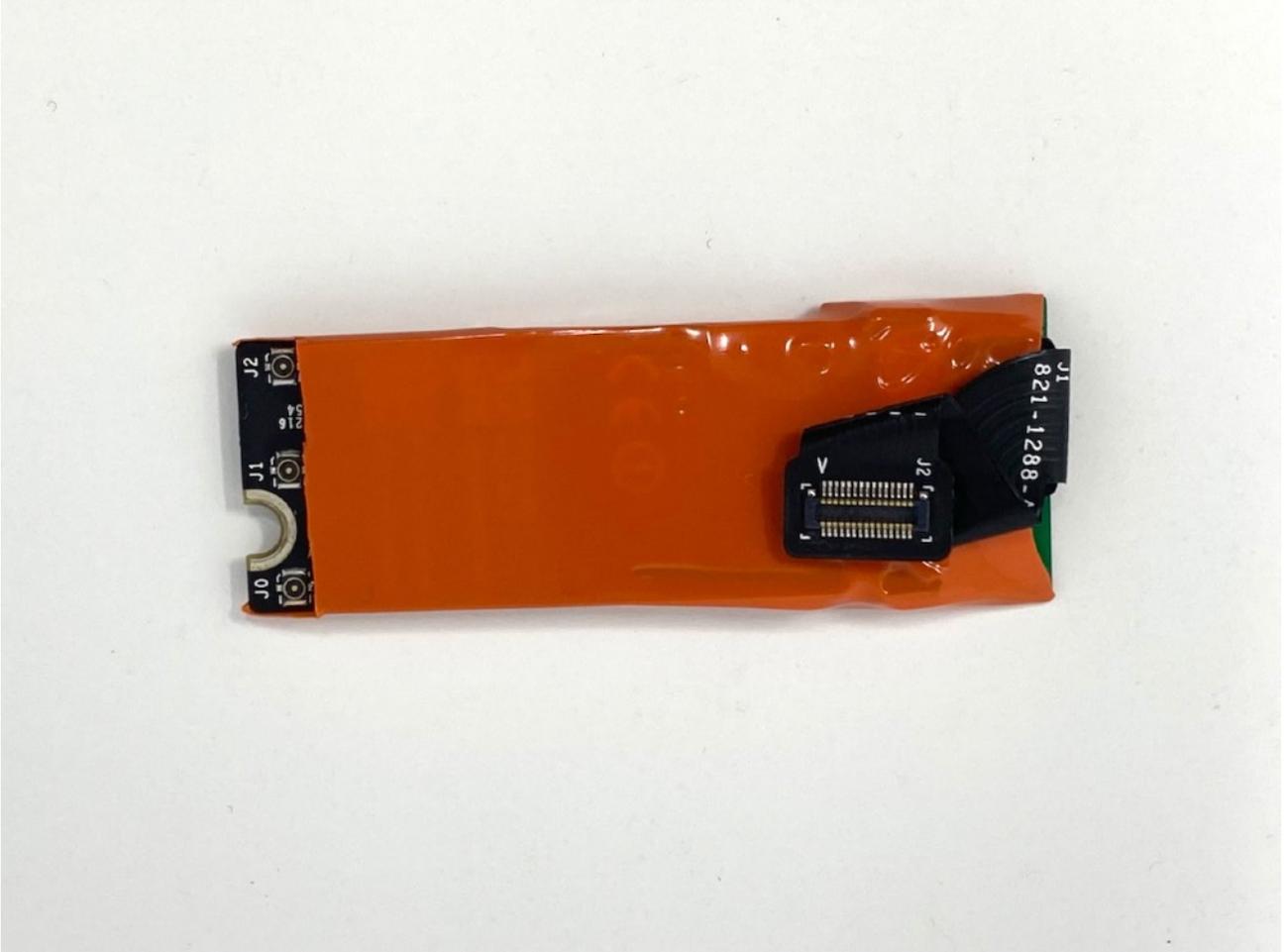


b. Carefully trim the heat shrink to expose the antenna connectors on the top side of the WiFi card.



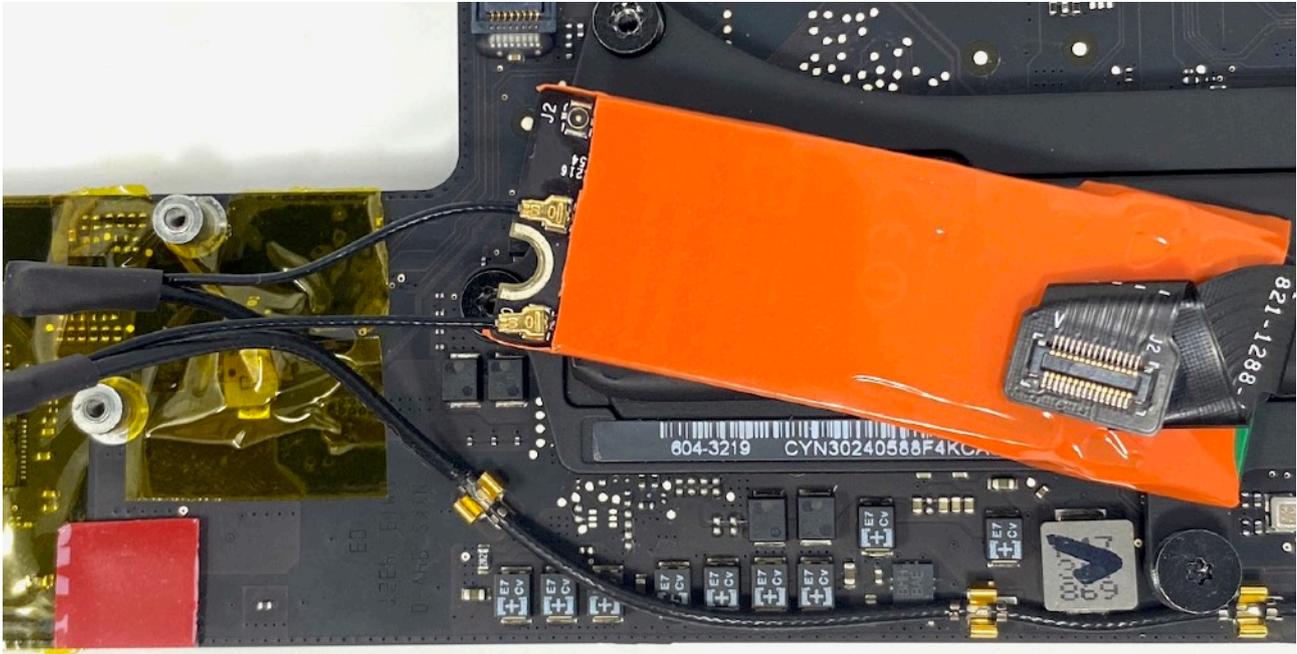
## 6. Fold the 30pin flex cable

The 2011/2012 30pin flex cable will need to be folded as in the picture below, be careful no to rip the flex cable. The 2010 cable does not require this it can be left to fold onto of the card i the same way was the factory card.



## 7. Attach the antenna cables to the WiFi card

a. Carefully attach the antenna cables to the card these will be stiff, again compress them between your thumb and forefinger, trying not to bend them. The order is important, as it will make it easier to route and pack in the cables underneath the card. These connectors will be tight you may find compressing them with the flat end of a spudger against a hard surface will help you



attach them. If all else fails use a pair of needle nose pliers with tape wrapped around the jaws.  
b. Attach the 3rd connector, be careful during reassembly not to get this caught and damaged.



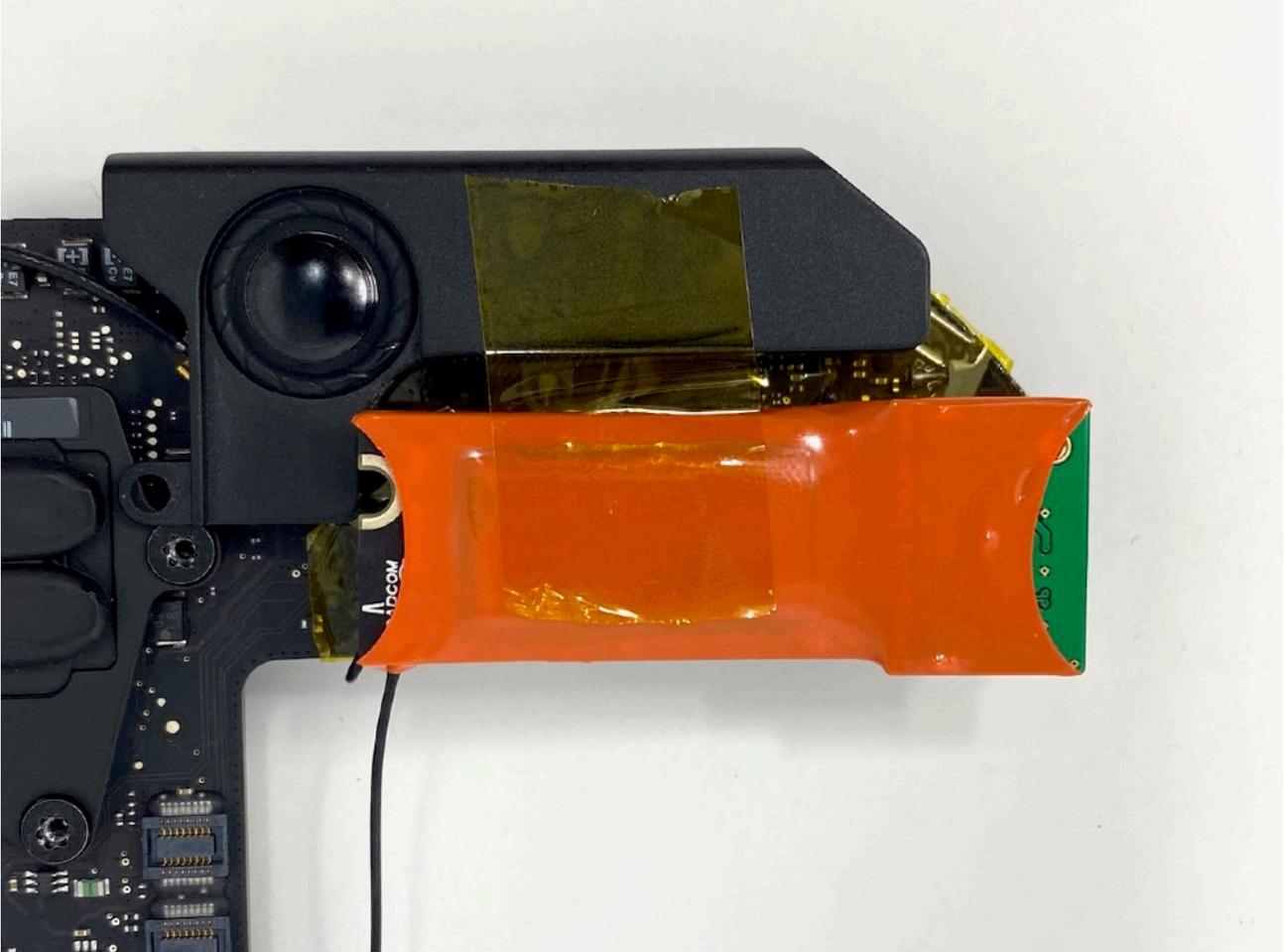
## 8. Attach the card to the logic board

Attach the card to the logic board be careful with the routing of the antenna cables under the WiFi card it should sit flat against the standoffs, and in the position shown below



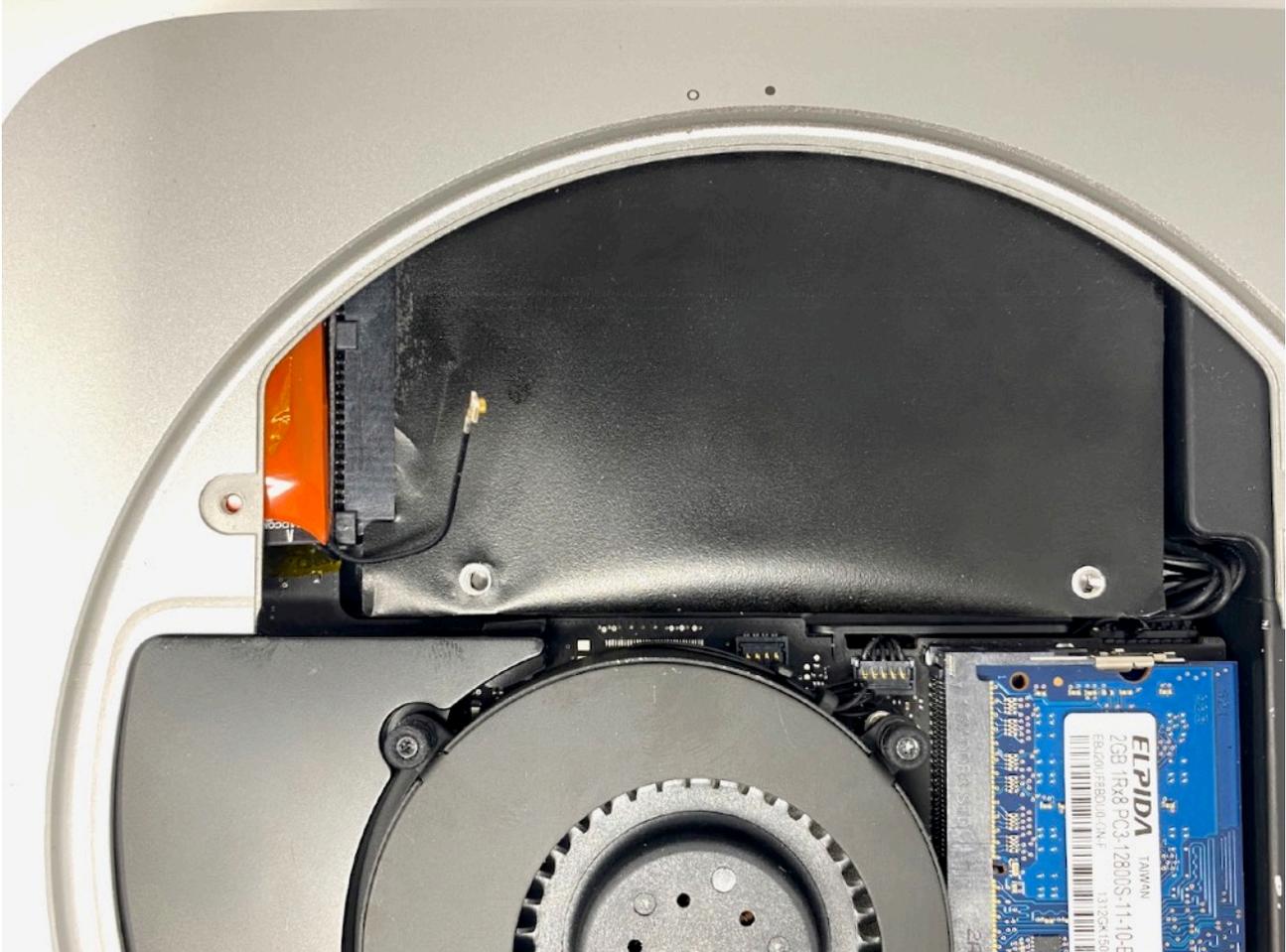
## 9. Reattach the speaker.

If you wish to keep the speaker reattach the cable, and remove the backing of the tape. The speaker will not be able to be reattached in it's original position if you are using a BCM943602CS. Lightly secure it to the WiFi card with some tape when reassembling the Mac Mini the speaker will naturally find its position.



## 10. Reassemble the Mac Mini

Reassemble the Mac Mini using the [iFixit instructions](#) paying careful attention to the 3rd antenna cable and the speaker, the logic board should still easily slide in. Stop before attaching the drive cage. The 3rd antenna cable should be routed as shown. The heatsink shroud will be a tight fit if you have kept the speaker, it is easier to fit it at this point.



## 11. Attach the 3rd antenna cable

As before slide the heat shrink over the cable and attach the drive cage antenna and shrink it.



## 12. Replace the drive cage and reassemble the Mac Mini

Be careful to not damage the antenna cable with drive cage screws when reassembling.



## 13. Test the card

Before testing be sure to [Reset the Pram](#) and [Reset the SMC](#)

You should be able to now connect via WiFi and Bluetooth as normal with the new features available with the card of your choice.

**\*\*\*There is a small chance that you will have software issues because this will vary by OS etc they are out of the scope of this guide if so please contact [Support](#) and we will do our best to help you\*\*\***

## Troubleshooting Links

[Continuity System Requirements](#)

[Apple Watch Unlocking](#)

[Handoff Support](#)

[Continuity Activation Tool](#)

[Pram Reset](#)

[SMC Reset](#)

## Change Log

v1 - Initial version