Hyfix-upgrade-guide v.1.2 (from dual-band to triple-band with the Mini-PCIe Card)
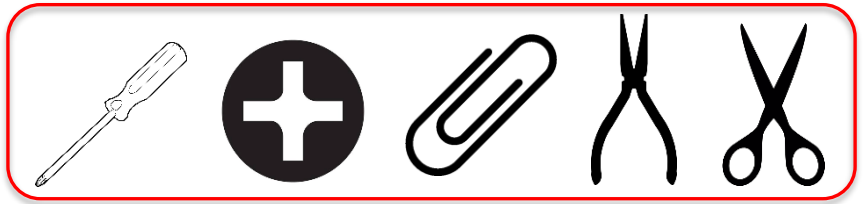
Table of Contents:

Hyfix-upgrade-guide v.1.2 (from dual-band to triple-band with the Mini-PCIe card)

1.   Preparation of the dual-band Miner and the triple-band Mini-PCIe card

Prepare the device and the necessary tools and utensils for it:

You will need:

- a Phillips screwdriver
- a paper clip
- a fine needle-nose pliers
- scissors

2.   Opening the device

Unscrew the screws of the device on the side of the connectors with a Phillips screwdriver.

3. Remove the electronic mainboard from the housing

Carefully pull out the electronics board and place it next to the housing.

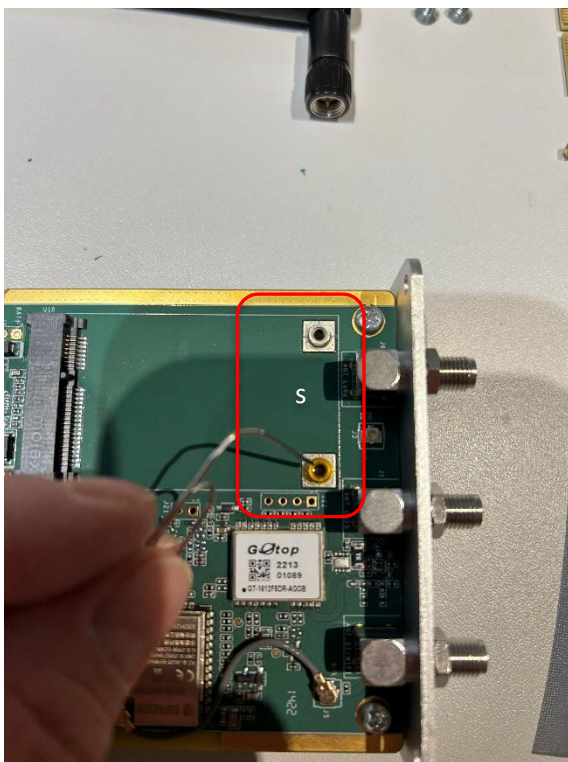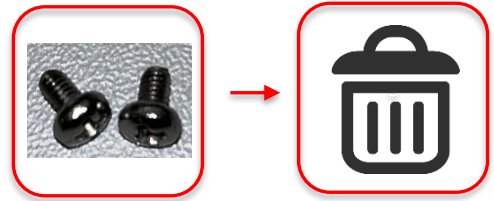### 4. Prepare the triple-band Mini-PCIe card

Open the plastic bag and place the individual contents as shown in the picture, ready for the next step.

5.   Preparing the motherboard for the installation of the triple-band PCIe card

The newer dual-band Miners have resin in the screw holes to hold the Mini-PCIe card in place. Take a paper clip and remove it carefully.

(The older dual-band Miners have screws in these holes. Unscrew them with the Phillips screwdriver).
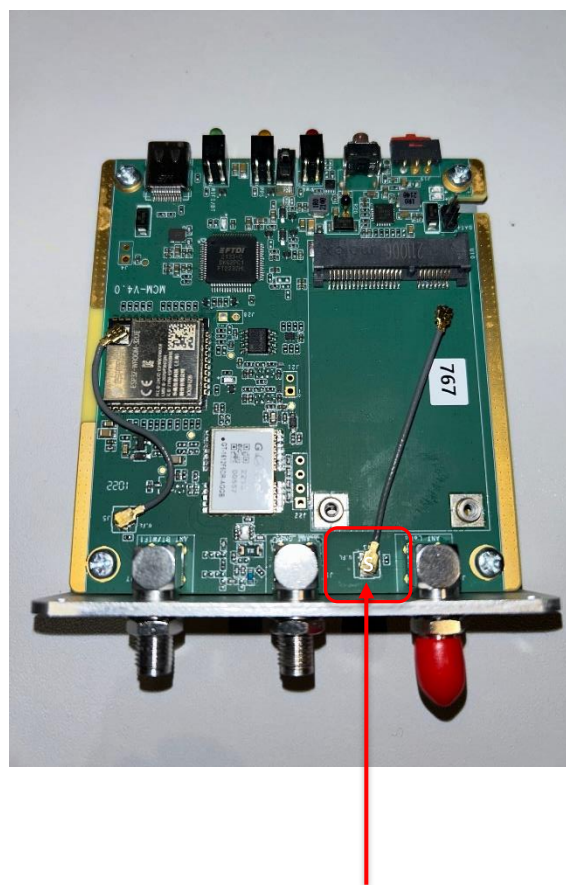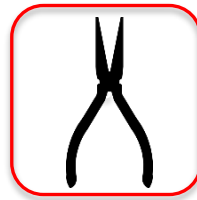
6.   Installation of the antenna cable on the motherboard

Take the antenna cable and place it on the connector on the motherboard.

Press it down finely with your hand and possibly with the fine needle-nose pliers until you feel it click into place.
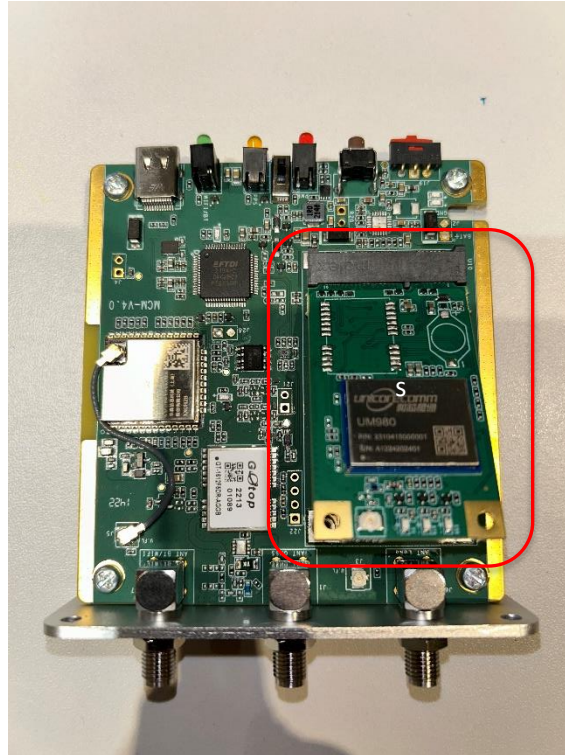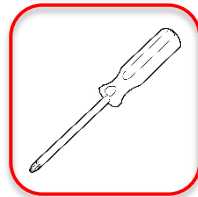
It's a tricky job, so be careful and don't apply massive pressure with the needle nose pliers.

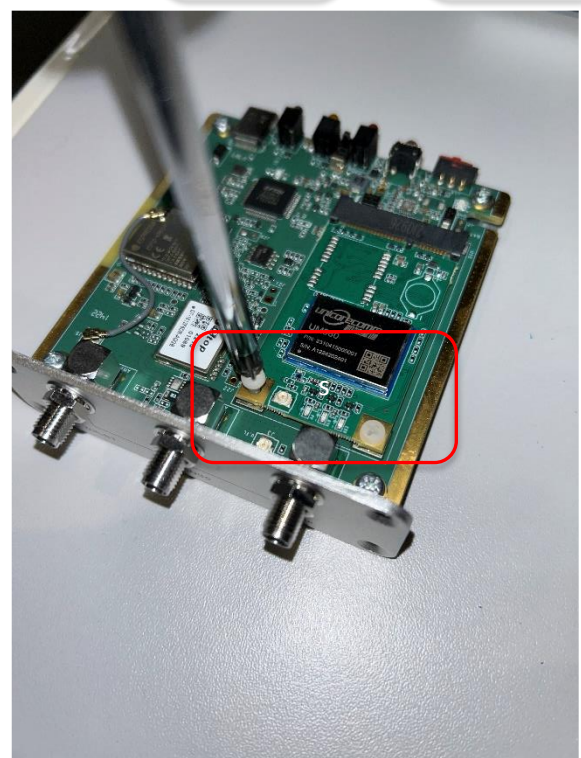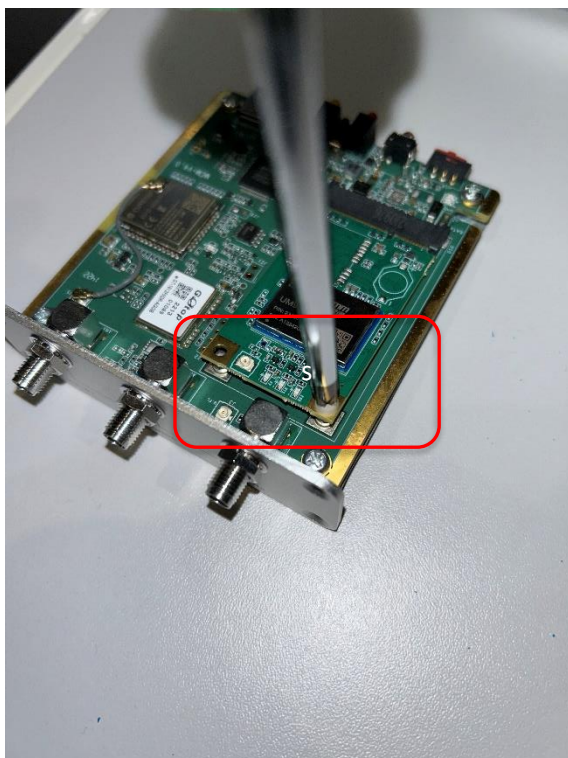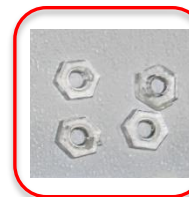Now check if the cable is locked in place.

## 7.	Installation of the triple-band PCIe card on the motherboard

carefully slide the Mini-PCIe card into the slot with the contacts and the chip facing upwards, as shown in the picture.

Now take the plastic screws and carefully screw them into the holes provided with the Phillips screwdriver.

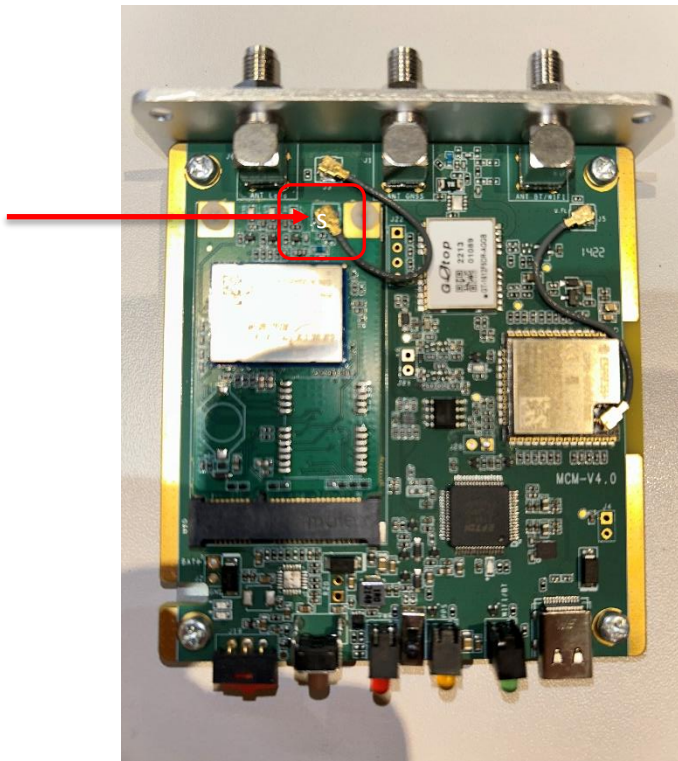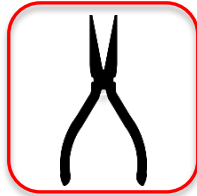(The supplied plastic nuts are not needed for this assembly).

8.   Installation of the antenna cable between the motherboard and triple-band Mini-PCIe cards

Take the other end of the antenna cable already connected to the motherboard and connect it to the connector on the triple-band Mini-PCIe card.

Press it down finely with your hand and possibly with the fine needle-nose pliers until you feel it click into place.

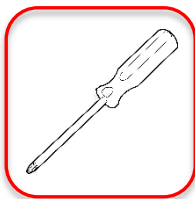It's a tricky job, so be careful and don't apply massive pressure with the needle nose pliers.

Now check if the cable is locked in place.

Now you can carefully push the motherboard back into the housing.

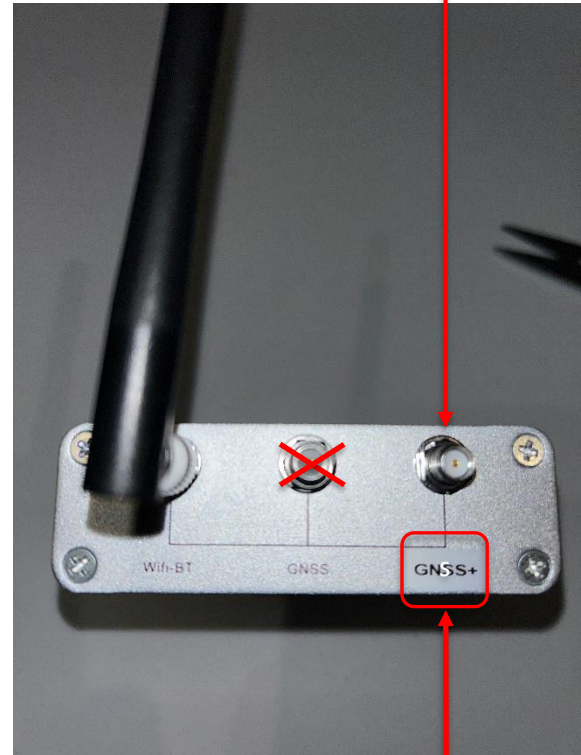Make sure that the LED lamps of the motherboard fit cleanly into the holes provided and are not bent.
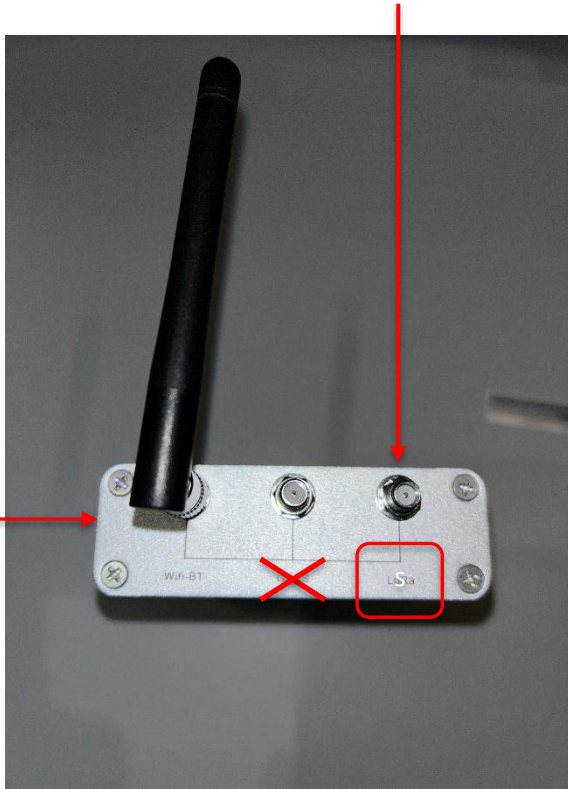
Then screw the four metal screws with the Phillips screwdriver back into the holes provided in the housing.

9. New labeling of the LoRa port due to the upgrade

As a final step, take the label provided, cut it to size with scissors and stick it over the "LoRa" label underneath the connection.
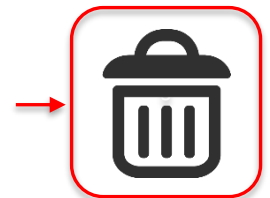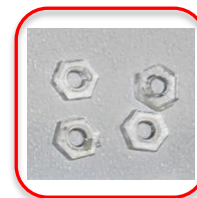

When you put the device back into operation, make sure that you connect the antenna cable to the newly labeled connector "GNSS+".
(The previous LoRa connector is now GNSS+).

of course, do not forget how to mount wifi antenna again on the Wifi-BT connector

Now your device is ready for operation as a triple-band Miner. (GNSS+)

at the end you have 4 plastic nuts left, which you do not need

Feel free to send me feedback + suggestions for improvement of this upgrade-guide.

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