

# External 25MHz reference on Starcom LNB

How to fix 25MHz external reference on Starcom SR 3602 mini LNB.



I bought this LNB on ALIEXPRESS @ Wizdom Electronic Mall. Store No.1952322

## Conversion steps:



- Remove the plastic covers starting with the cap at the connector side.



- Remove all sealant with a small screwdriver.



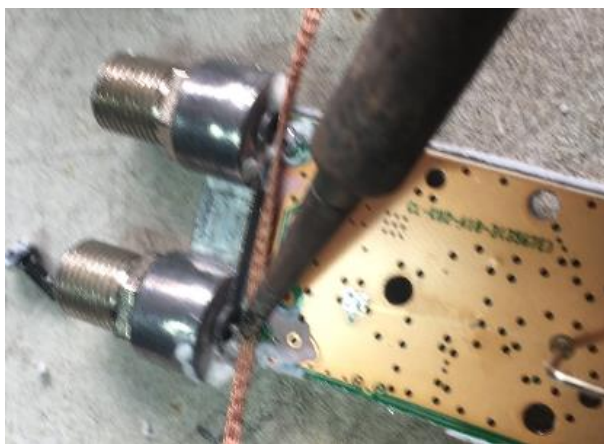
- Remove the 4 torx screws



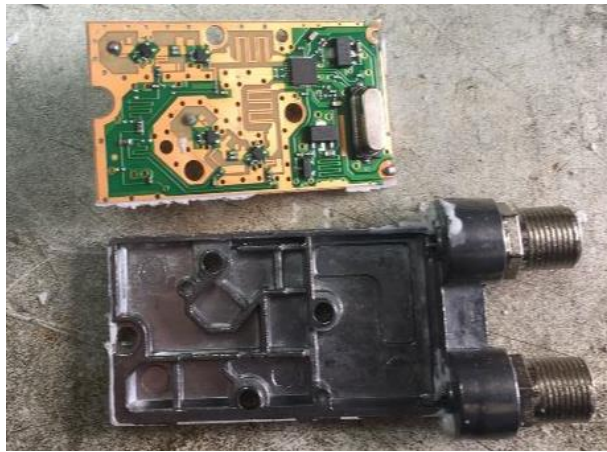
- Open the cover with a small screwdriver on the horn side, there is a small notch to make this easier.
- Be careful, the pcb is soldered to the connectors on the cover.
- Remove the cover with the pcb together.



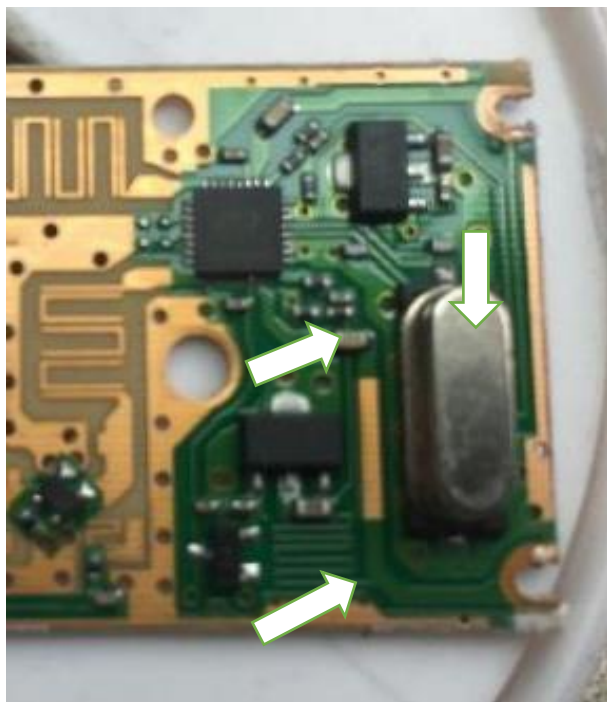
- It ends up like this



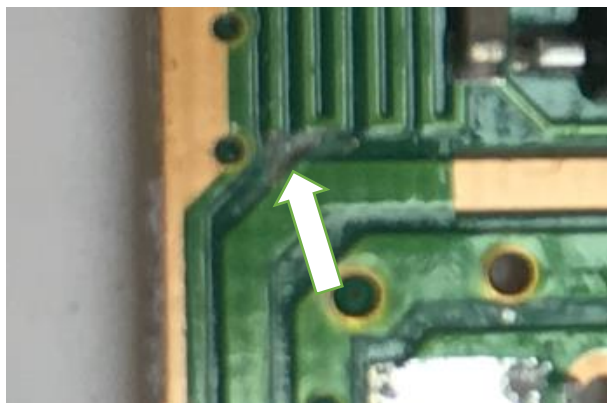
- Remove the PCB from the connectors using solder wick.



- Separate the PCB from the cover
- The X-tal can be on both sides of the PCB, depending on the type.
- There are many different variants of this LNB available. If you use the Aliexpress seller on top of this document, you probably end up with this type.



- Identify the following components:
- X-tal (right)
- Capacitor (left upper)
- PCB trace of DC choke (left lower)
- Remove X-tal with soldering iron.
- Remove capacitor with soldering iron
- Cut pcb trace of dc choke with sharp knife



- Detail of the cut pcb trace.



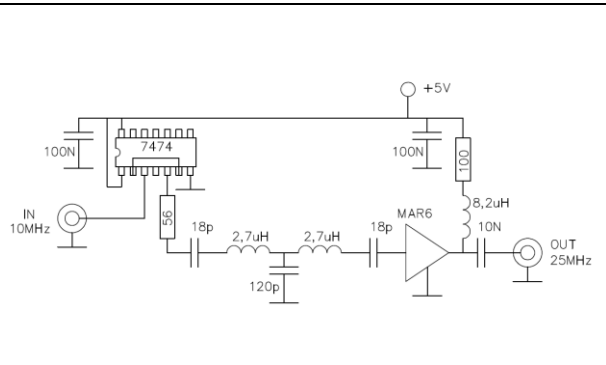
- Solder a capacitor as shown on the photo.
- Value is not critical anything will do from 47p to 100n



- Assemble all parts together in the reverse way as described above.
- Solder both connectors to the pcb.
- You can apply new sealant to make it watertight again.
- Use sealant without acid.



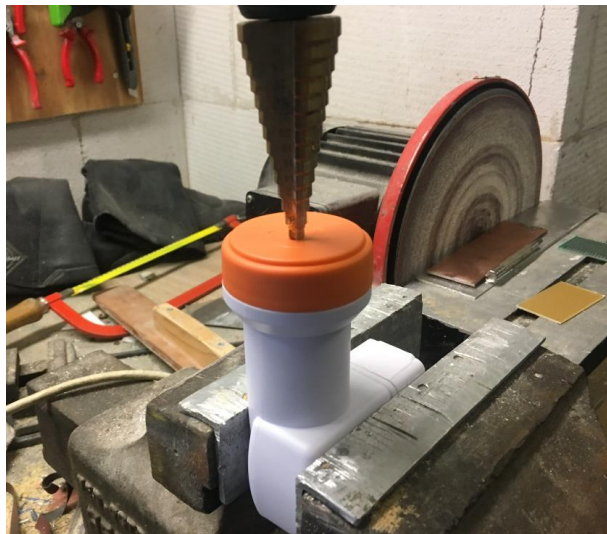
- On the left port you can apply the 25MHz reference.



- To lock the Starcom LNB to an external reference, it needs 25MHz on the PLL.
- I have a 10MHz GPSDO in the shack.
- This I use to get 25MHz out of 10MHz.
- The Starcom SR3602 mini works fine on it.



- The layout in haystack mounting



- The easiest way to mount the LNB to the POTY is by drilling a 22mm hole in the plastic cap on the front side of the LNB and push the POTY waveguide inside.
- Push the POTY all the way until it meets the metal horn inside.
- By rotating the POTY you get the flex out of the cap and the waveguide stays in position.
- With silicon sealant the LNB get fixed and watertight.



- The dish mount is placed just behind the Patch reflector, not on the LNB!