



New DXPATROL Helix antenna for QO-100 satellite



The Helix antenna, well known by the ham community for its efficiency over a very wide band with low VSWR, perfect circular polarization and simplicity to install in any dish, makes it one of the favorite types of feeds for Space communications.

With the help from Luis, CT1DMK for coil and impedance match design and Sandor, DM4DS, for 3D original design ideas, We developed this new Helix especially dedicated to small Offset dishes with extraordinary results even on small as a 40cm diameter dishes.

This type of Helix is a perfect feed system for those who can't install a large dish on the roof, caravan, camping, apartments, field, emergency etc.

Our Helix is 3D printed in a PETG rugged material Water/UV/RF proof.

( sorry no snow in Portugal, cannot test it here, but I believe it will be OK :-)

PETG is totally transparent to RF on 2,4 and 10 Ghz, the total attenuation is less than 1dB on 10 Ghz and negligible on 2,4Ghz

The installation is very easy, and several types of LNB can fit inside, however, we strongly recommend you to use our DXpatrol LNB, as the SWR is factory set to be 1:1 with our LNB fitted IN.

Other types of LNB might need SWR correction.

The total length of the Helix is 16CM and weight with LNB is about 0,3Kg

This Helix is suitable for Narrow band and DATV usage on QO-100.

RF connector N-type

We recommend after installation, to isolate the N-connector with rubber tape of mass.

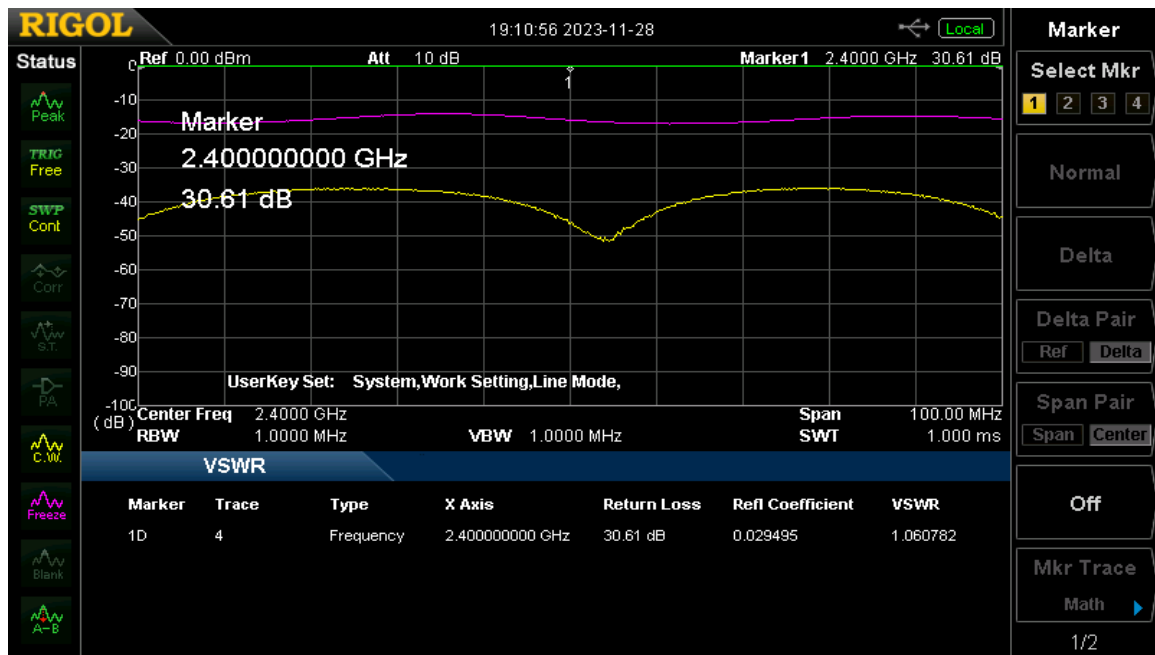


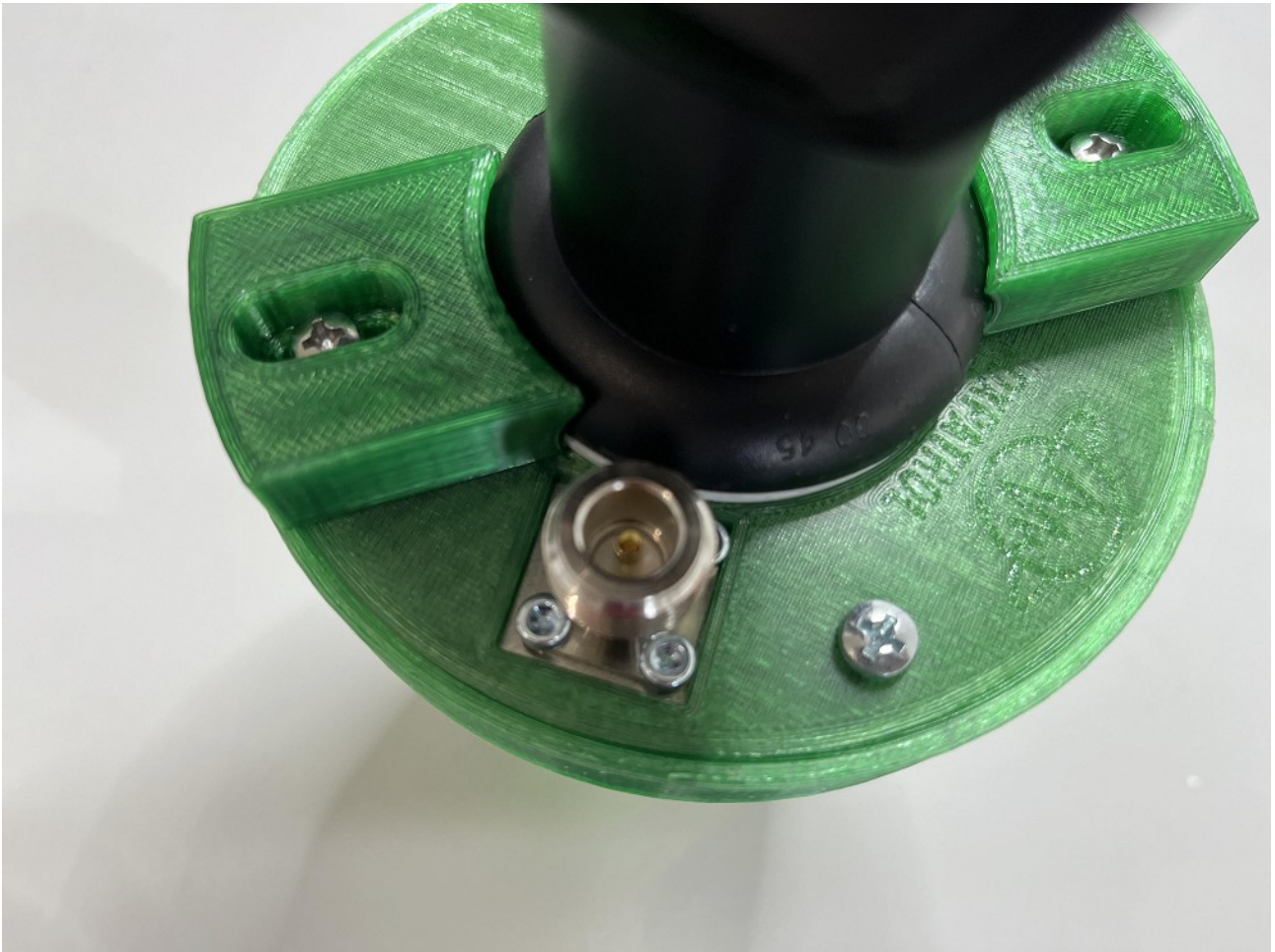
Fig 1 SWR & Return Loss on 2400Mhz



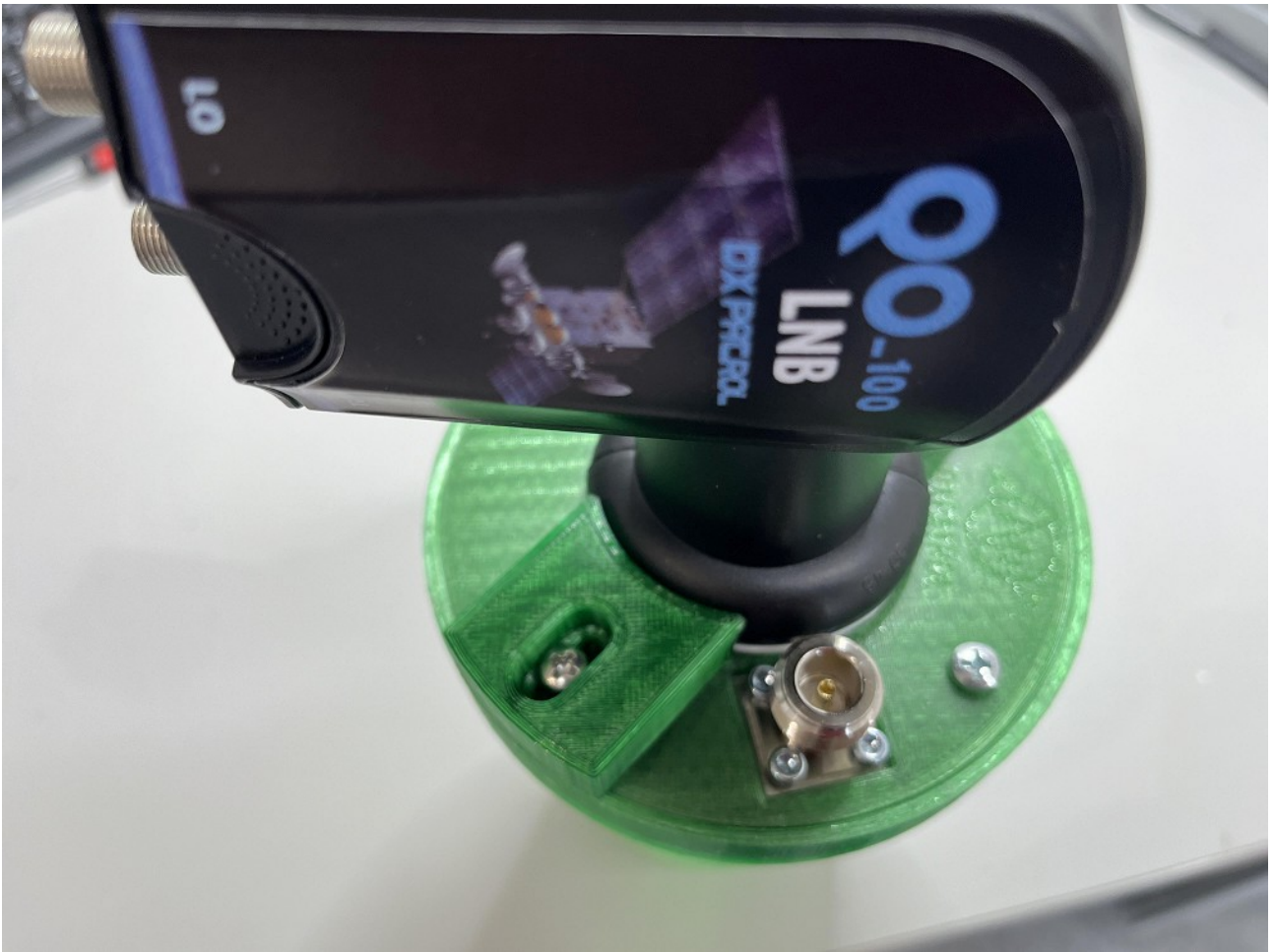
Fig 2- Shape of helix inside.



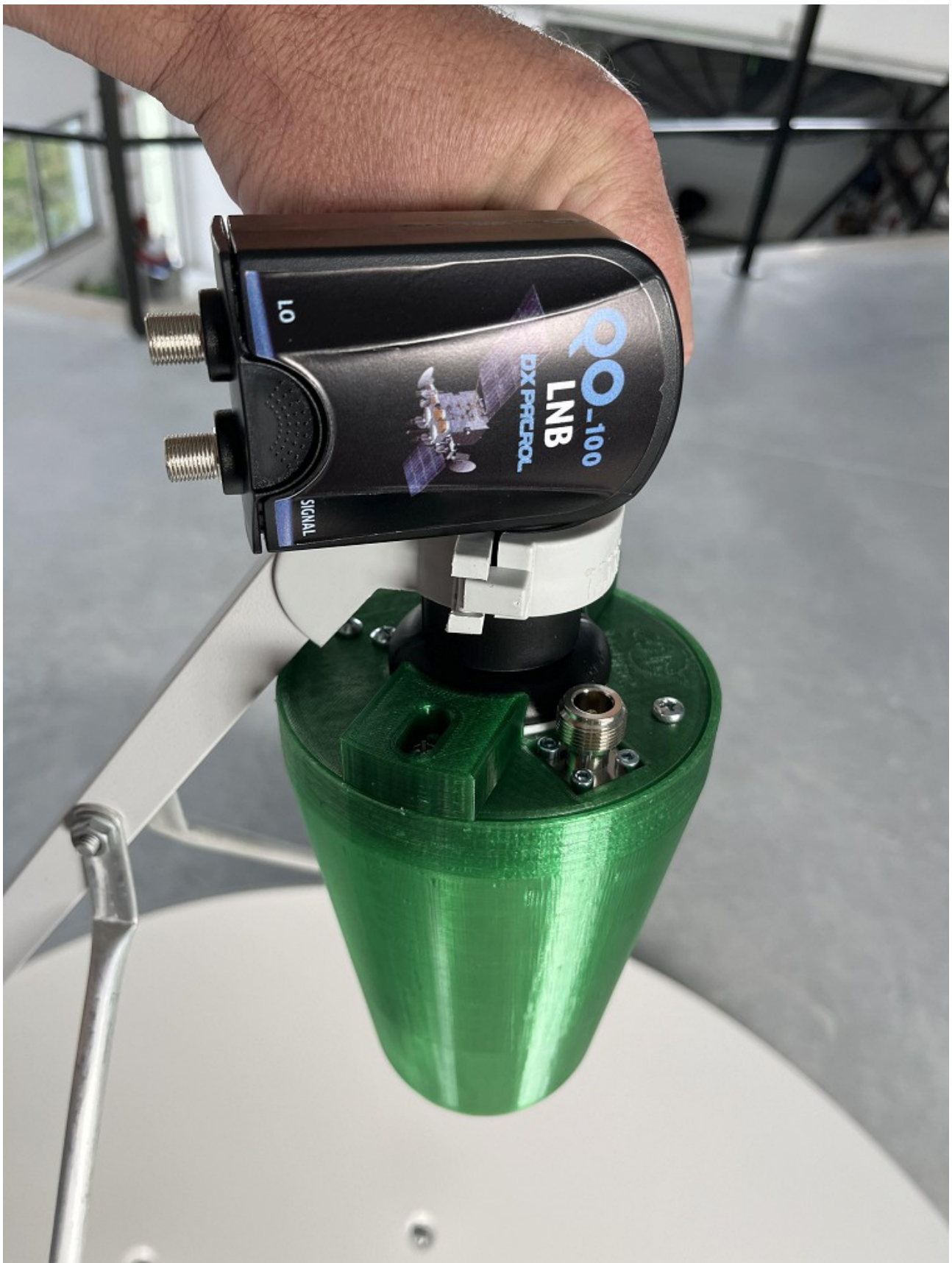
*Fig 3 Helix and LNB cable connexions*



*Fig-4 The adjustable LNB holders and the Female N-type connector.*



*Fig 5 LNB fitted*



*Fig 6 Holding the Helix with LNB to the head of dish.*