

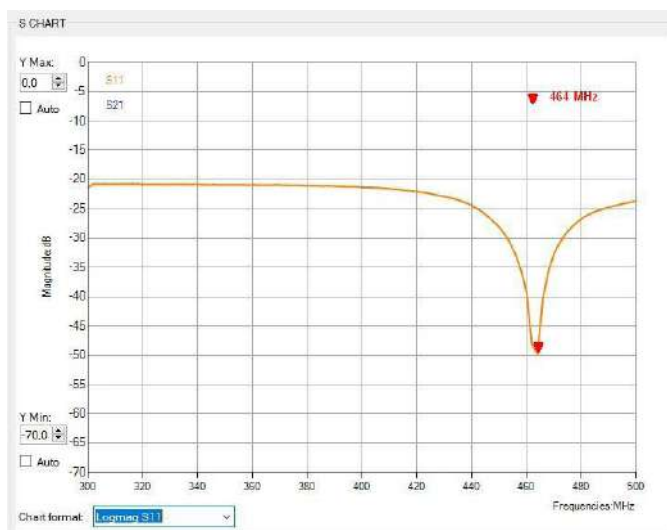
TTGO antenna modification for the 400 to 406 MHz range

Aldo Moroni (IW2DZX)

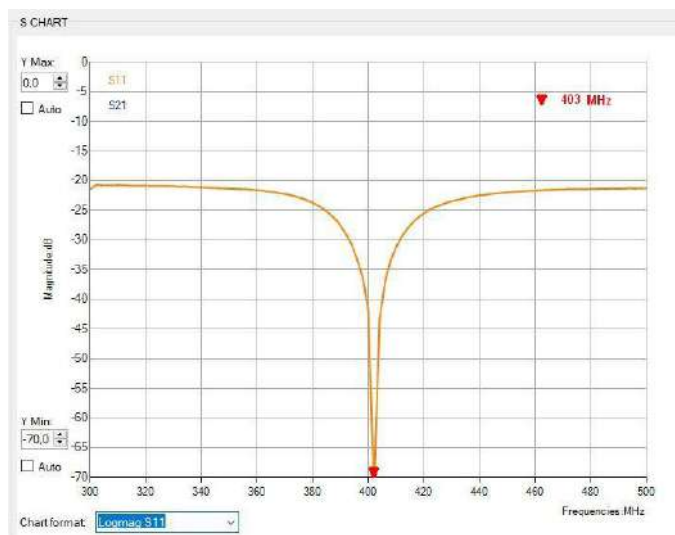


The TTGO Esp32 LoRa 433MHz models are supplied with a small spiral antenna with a rigid plastic coating and SMA connector.

Our 3 devices measured specimens tuned to around 464 MHz. Improved performance can be achieved using an antenna with the following dimensions.



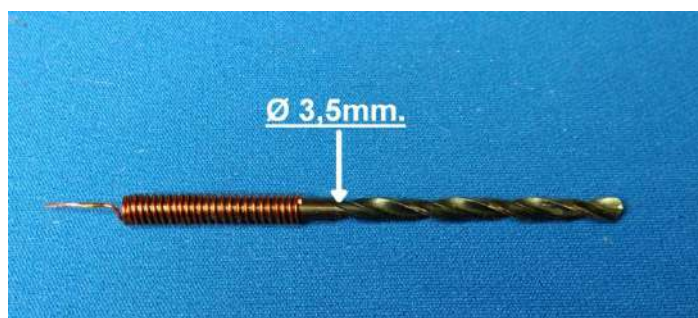
Before retuning



After retuning

To construct an antenna, tuned to the 400-406 MHz range, wind 26.5 turns of 0.5mm enameled copper wire on a 3.5mm support. Replace the original. Our resonance results are show above.

Dimensions are important.



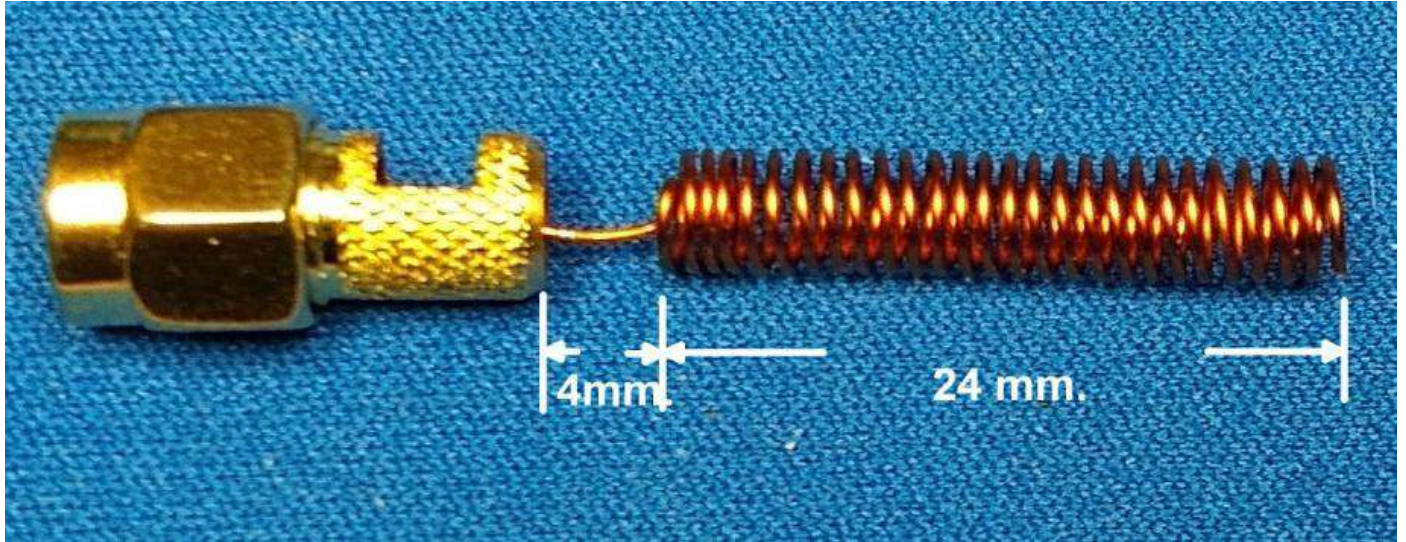
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Once the new spiral has been made, the plastic coating is removed by levering with a screwdriver.

Replace the antenna of the 433 with the one just made and reassemble the coating taking care not to deform the spiral.



The antenna may be directly connected to a low cost analyser to confirm the correct performance



Good luck. Happy hunting!