

Review: JWX Window Clasp Antenna

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If you are driving a leasing car, or you don't want to drill a hole in your (new) car, then there is a solution to get on air: JWX Windowclasp Antenna 2Meter – 70 cm.

My previous car, I was using a magnetic foot and a mobile antenna with good results. I saw that there were little scratches and color difference, on the place, the antenna was placed. Once I entered a parking lot. I was lucky that I was driving at low speed. The antenna was not broken and no visible damage on the roof (of the car).

When my new car was arriving, I promised to look out for a solution of the magnetic foot problem. Receiving a tip from ON5KTO (Wim), I learned that there must be a window clasp antenna. This concept was releasing me of the obligation, to drill a hole in my new car.

Overall concept

If you Google for '*JWX Windowclasp Antenna*', you will find the website of PA0JWX, Jan Wantia (NL). So I ordered the antenna, and a few days later, I received a small container containing the antenna and a print-out of the VSWR. My first attention went out to the window clasp, because I would not like to create scratches on my rear window. And what about the feeding cable? After close inspection, these aspects were covered by an inventive concept. The window clasp is inside covered by thin rubber. So no scratches and the window is perfect sealed. The small round box is containing a diplexer for 2 meter and 70 centimeter. The antenna is providing a coil in the middle of the length of the antenna.



Because of the light weight of the antenna, it is no problem to open or close the door. When driving the legal limit of 120km/h, I can hear slightly some noise of the wind. Most important, everything stays in place and the windows are sealed like a submarine.

Performance

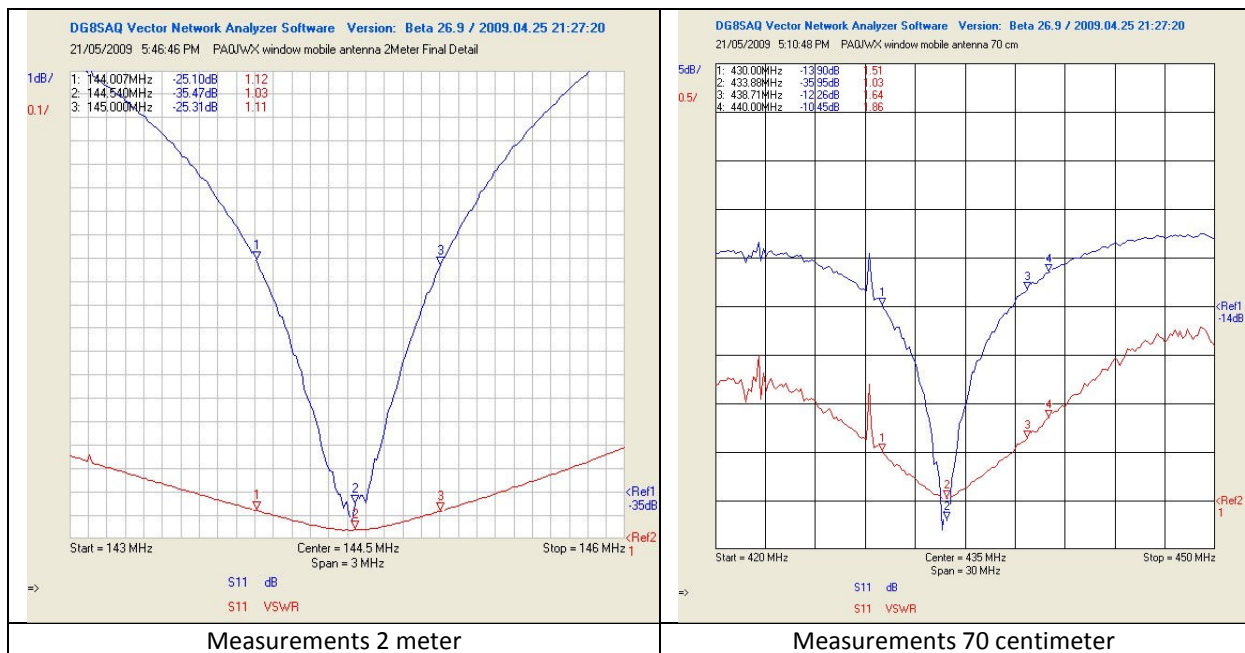
I use this antenna in combination with an **Icom 2725 dual band FM Transceiver**. I could test my brand new Vector Network Analyzer (DG8SAQ, VNWA see www.sdr-kits.net) and share the results with you.



Packed with my portable and the VNWA, I started with calibrating the vector network analyzer. And I stepped in my car with high expectations. This time, the VNWA would tell me if the position and the concept of the antenna is working in my case.

First did the measurements for 2 meter (1/2 wave antenna). These results explain, why I could work my colleagues without using a repeater. See my results below. The red curve is representing the **VSWR**. The blue curve is representing the **dB curve**. With an average VSWR of 1:1.1, my antenna was even performing better than the specs (VSWR 1:1.2).

The measurements on 70 centimeter (collinear antenna) were also in scope of the specs. When you are mobile, working on VHF/UHF, it isn't common to use an antenna tuner. So these measurements prove that you can work with the PA0JWX antenna, without making modifications.



Conclusion

The PA0JWX antenna is resulting in the promised performance (diplexer for 2 meter & 70 centimeter band). For me, the ultimate solution to operate mobile without damaging my car. I am currently using the antenna for more than 4 months. In Belgium we received a lot of rain, but I didn't detected any leak. After 10.000 kilometer, the antenna didn't move a millimeter and no scratches on the window. If the clamp is to tick you will encounter problems with closing the electric windows. This antenna has an inventive concept, proven build quality and useful in practice.