

THREE BAND UNIVERSAL RZ3AE ANTENNA

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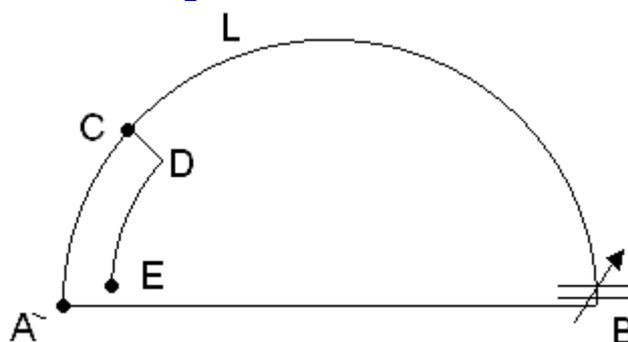
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For several years I use to a simple and rather effective home – made antenna for a work from my balcony, a hotel window, from the ground in a radio- expedition and from my car. I with my friends have made a dozen such antennas and all the antennas work very well. One antenna, in depend of its dimension, works at three old amateur ranges- 10, 15,20 or 15, 20,40, or 20,40, 80.

Antenna description:

Figure 1 shows the antenna. Antenna wire is a tube or copper or bimetal rod of 5-12-mm diameter (#0000—5 AWG). D-E wire is thinner then a-c-b wire in 2-5 times. Antenna is tuned by air (a vacuum capacitor is better!) variable capacitor with air-gap in 2-mm. The capacity is 5- 750-pF.

Figure 1 RZ3AE Antenna



Antenna ratio:

$$L = 1.57AB$$

$$CD = 5-8 \text{ centimeters}$$

$$AC \approx 0.2L$$

Most high frequency for the antenna is: $4 (AB+L)$.

Antenna adjustment

To run a QRP power at most high frequency for the antenna. Move a crosspiece CD to find the minimum SWR. Check position of the crosspiece. To run a QRP power for next working band of the antenna. Move a crosspiece CD to find the minimum SWR. Check position of the crosspiece. And so on.

Antenna operation

To stand the crosspiece by manually or by RF-relays for choosing band. The antenna has very high directivity, so, choose needed position for the antenna. Switch your transceiver and enjoy!

Antenna results

I tried the antenna at different conditions and everywhere the antenna works well, from my house, from my car (the antenna is placed at boot of my car), from a field. I use to the antenna with IC-706 MK2G.

I wish all good luck! 73!

