

R2DII Mini Dipole Antenna for 14- MHz Band

By: *Dimitriy Sarnikov, R2DII*

I have very limited conditions for antenna installation in my apartment on the second floor. It is my balcony and windows of the room. I choose my balcony and begin experimented with different shortened antennas there. I cannot achieve success with shortened vertical antennas. However in the experiments there it was born *Mini Dipole Antenna* that works good enough. **Figure 1** shows design of the antenna.

Antenna is tuned to resonance by changing length of the last antenna part – it is aluminum tube in diameter of 8-mm. The tube just slide up inside of the other tube in diameter of 10- mm. Any antenna analyzer or SWR meter may be used for tuning of the antenna.

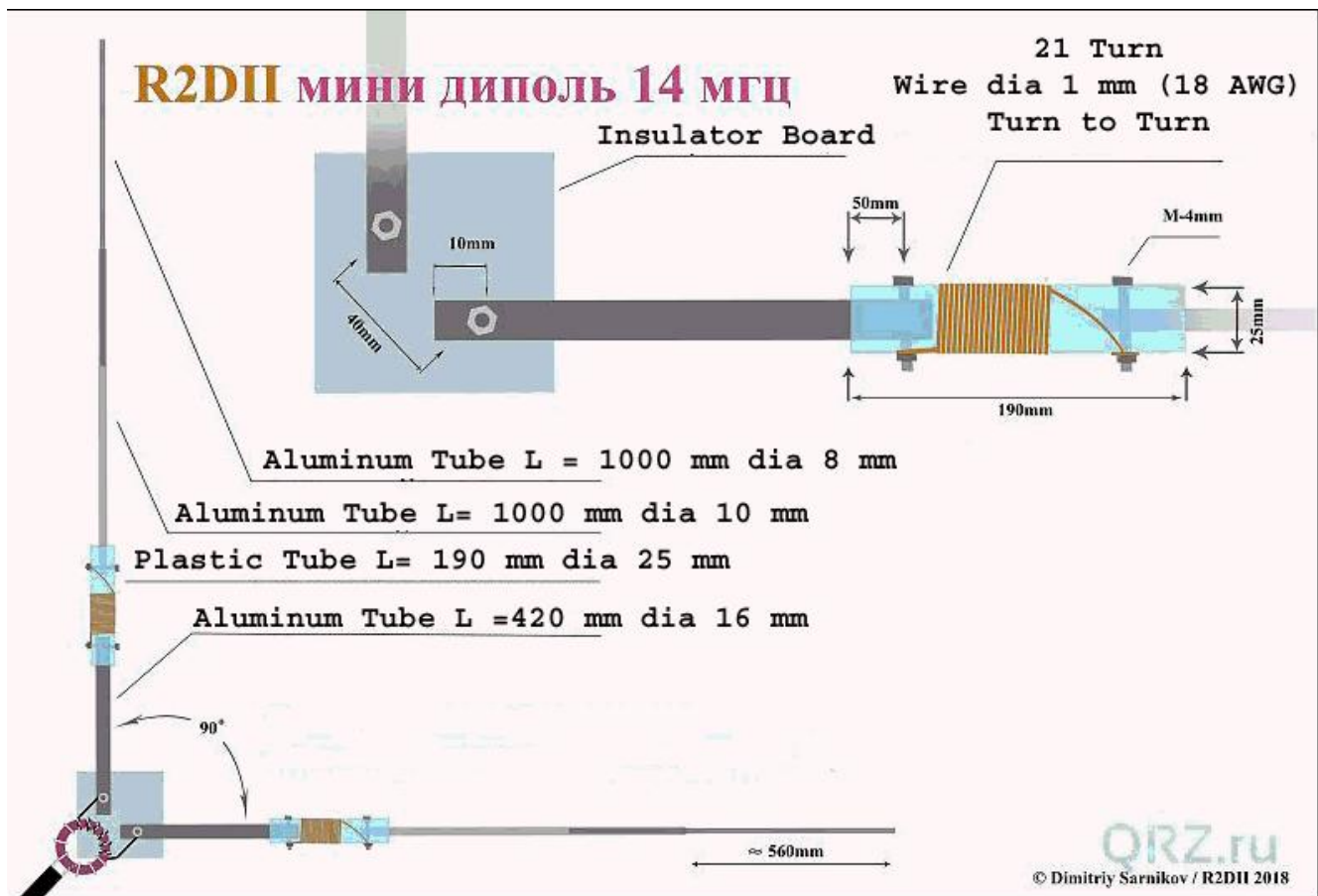


Figure 1

R2DII Mini Dipole Antenna for 14- MHz Band

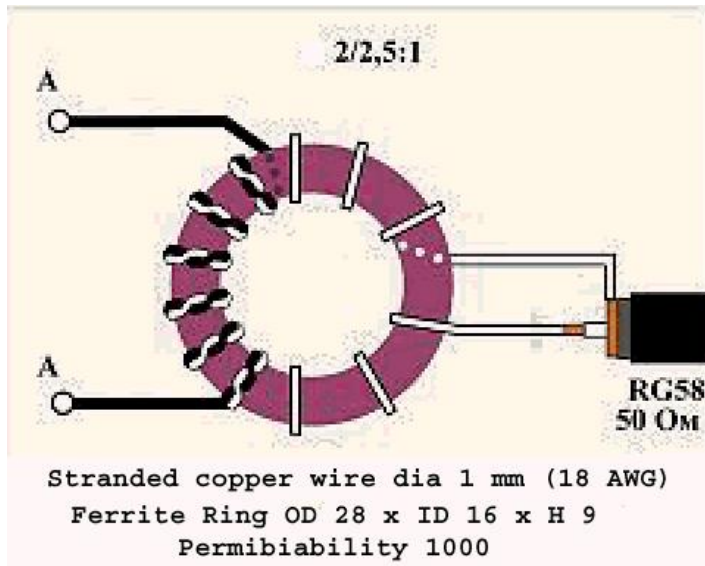


Figure 2

Transformer of the R2DII Mini Dipole Antenna for 14- MHz Band

Antenna has input impedance near 18 Ohm. Thereof for feeding of the antenna I use home- made transformer 18/50 Ohm. **Figure 2** shows design of the transformer. Transformer was wound on a ferrite ring with permeability 1000 and dimensions OD28xID16xH9. With the transformer antenna has good SWR in 100- kHz bandwidth. Antenna was installed at distance of 1.5- meter apart of metal enclosure of the balcony. **Figure 3** shows the installation of the antenna.

While installation and testing the antenna there were made SSB QSOs from my city Podolsk, Moscow region. It was used just 100- W.

DK1VP – 59; 4U1A -59; RW6AU -58; Z33MM -59;
 UN8LWZ -59; RA6HVW -59; RN6DZ – 59; S57S -59;
 RK6AAW -59; SV3GLL -59; GOSXC -59; SL1NKS -59;
 A41NND/ND -59; 3Z100I -59; 4L1BB – 56; ON1418END -
 59; OV1CDX -59; IK2IQD -59; RU1ZC -59.

Of course, it is a compromise antenna but the antenna provides good result in the Air. I would like say Thanks to Aleks, RA3ATA, for his help with tuning of the antenna.

73! R2DII

Credit Line: <http://www.qrz.ru/schemes/contribute/antenns/r2dii-mini-dipole.html>



Figure 3

Installation of the R2DII Mini Dipole Antenna for 14- MHz Band on the Balcony