The publication is devoted to the memory UR0GT.

Two Vertical Antennas for 20-, 15- and 10- meter Bands

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Below described two vertical antennas that work without any ATU at the 20-, 15 and 10- meter Bands. The antennas easy to made and easy to tune to the bands.

Figure 1 shows Triangle Vertical Antenna. **Figure 2** shows the antenna in 3d projection.

The MMANA model of the Triangle Vertical Antenna for 20, 15 and 10- meter Bands may be loaded: http: // www.antentop.org/019/two_verticals_ur0gt_019.htm

Figure 3 shows Vertical Antenna with Inductor. **Figure 4** shows the antenna in 3d projection. The inductor has inductance in 10- microHenry. Mutual capacitance of the inductor should be not more the 1- pF. For example it is possible to use inductor with OD 4.8- cm, coiled by wire in 1-mm dia (19- AWG), gap between turns 1- mm, inductors has 15 turns.

The MMANA model of the Vertical Antenna with Inductor for 20, 15 and 10- meter Bands may be loaded: http: // www.antentop.org/019/two_verticals_ur0gt_019.htm

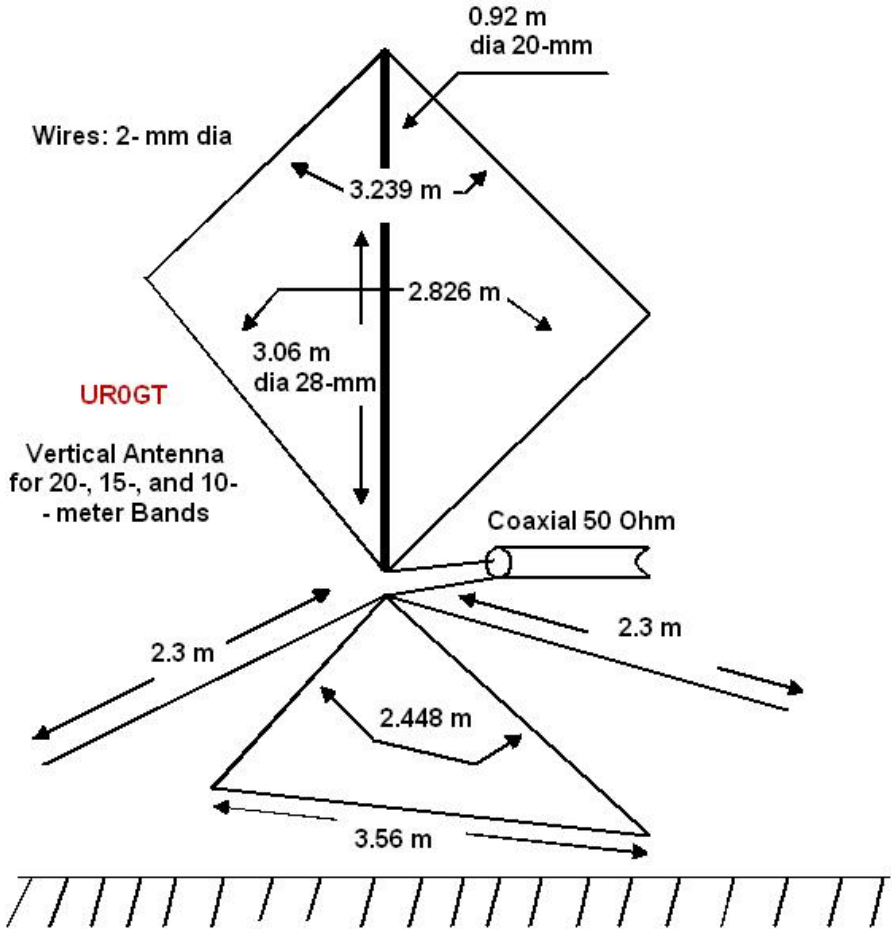

Figure 1 Triangle Vertical Antenna for 40, 20 and 10- meter Bands

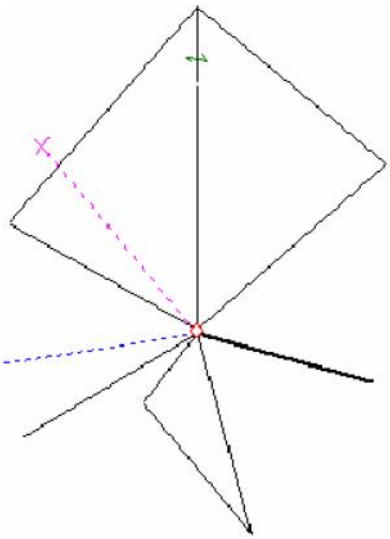

Figure 2 Triangle Vertical Antenna for 40, 20 and 10-meter Bands antenna in 3d projection

Figure 5 shows impedance of the Triangle Vertical Antenna at 20- meter Band. **Figure 6** shows SWR of the Triangle Vertical Antenna at 20- meter Band. **Figure 7** shows DD of the Triangle Vertical Antenna at 20- meter Band. **Figure 8** shows impedance of the Triangle Vertical Antenna at 15- meter Band. **Figure 9** shows SWR of the Triangle Vertical Antenna at 15- meter Band. **Figure 10** shows DD of the Triangle Vertical Antenna at 15- meter Band. **Figure 11** shows impedance of the Triangle Vertical Antenna at 10- meter Band. **Figure 12** shows SWR of the Triangle Vertical Antenna at 10- meter Band. **Figure 13** shows DD of the Triangle Vertical Antenna at 10- meter Band. Antenna model was simulated at height 3- meter above the ground.

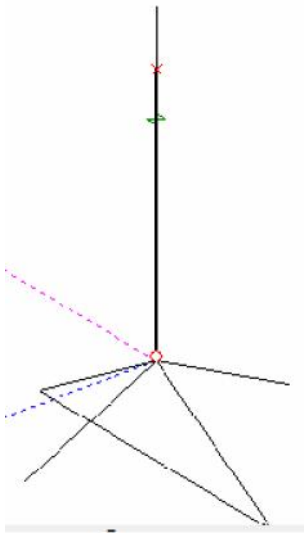

Figure 4 Vertical Antenna with Inductor for 40, 20 and 10- meter Bands antenna in 3d projection

Figure 14 shows impedance of the Vertical Antenna with Inductor at 20- meter Band. **Figure 15** shows SWR of the Vertical Antenna with Inductor at 20- meter Band. **Figure 16** shows DD of the Vertical Antenna with Inductor at 20- meter Band. **Figure 17** shows impedance of the Vertical Antenna with Inductor at 15-meter Band. **Figure 18** shows SWR of the Vertical Antenna with Inductor at 15- meter Band. **Figure 19** shows DD of the Vertical Antenna with Inductor at 15-meter Band. **Figure 20** shows impedance of the Vertical Antenna with Inductor at 10- meter Band. **Figure 21** shows SWR of the Vertical Antenna with Inductor at 10- meter Band. **Figure 22** shows DD of the Vertical Antenna with Inductor at 10- meter Band. Antenna model was simulated at height 3- meter above the ground.

73! de UR0GT

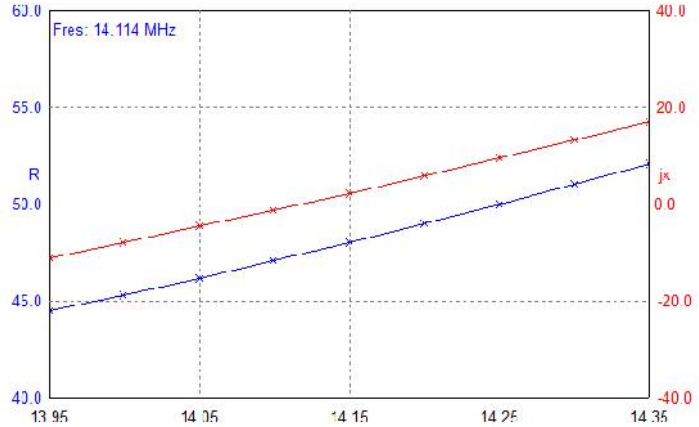

Figure 5 Impedance of the Triangle Vertical Antenna at 20- meter Band

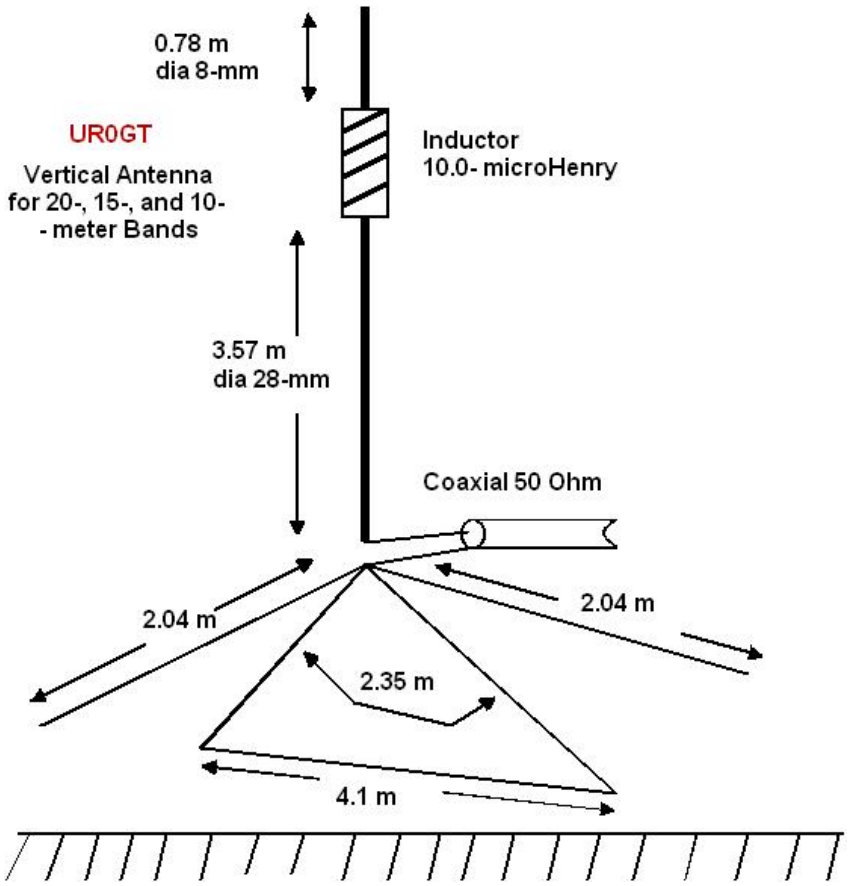

Figure 3 Vertical Antenna with Inductor for 40, 20 and 10- meter Bands antenna

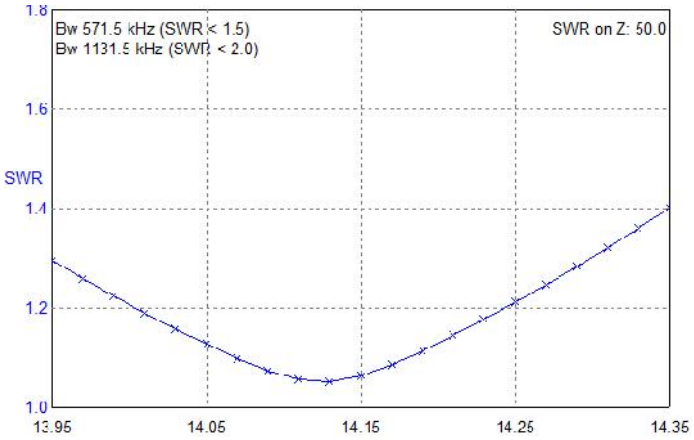

Figure 6 SWR of the Triangle Vertical Antenna at 20-meter Band

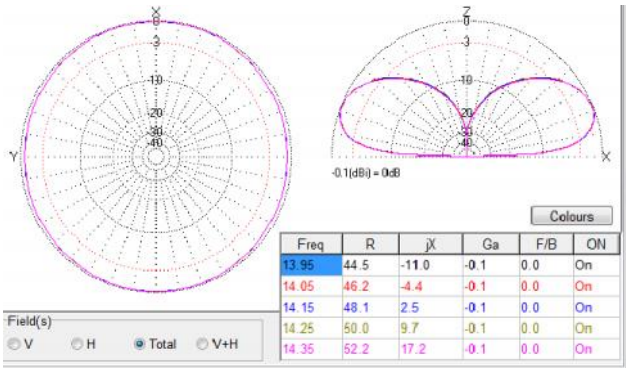

Figure 7 DD of the Triangle Vertical Antenna at 20-meter Band

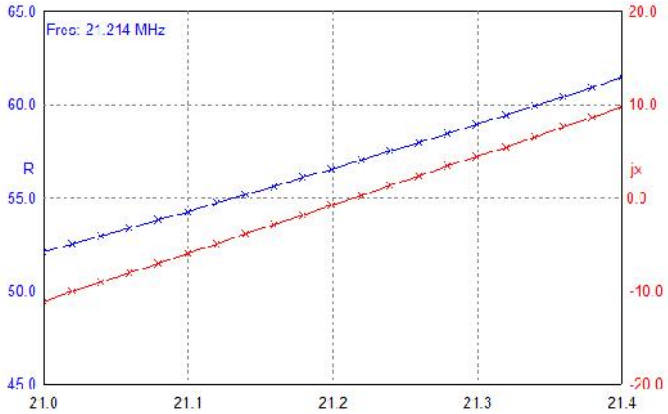

Figure 8 Impedance of the Triangle Vertical Antenna at 15- meter Band

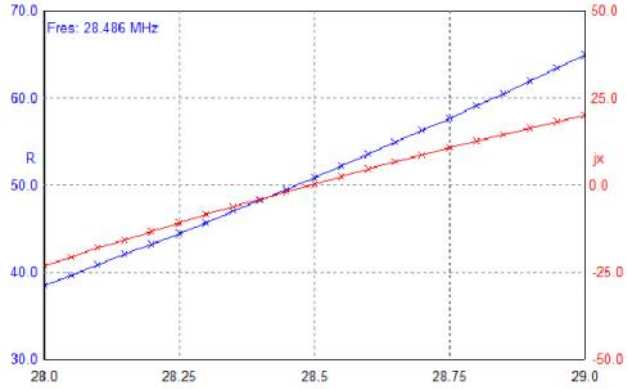

Figure 11 Impedance of the Triangle Vertical Antenna at 10- meter Band

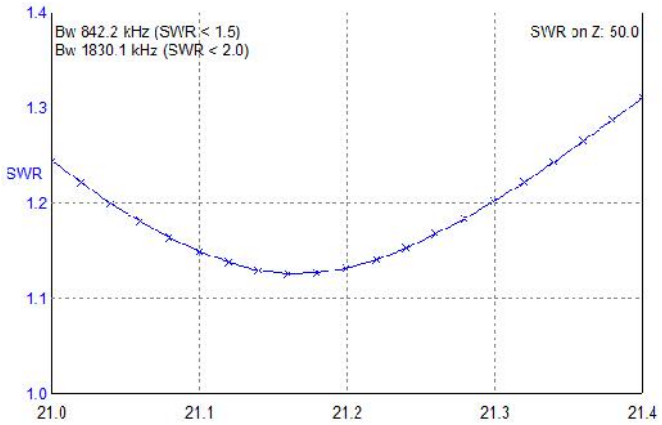

Figure 9 SWR of the Triangle Vertical Antenna at 15- meter Band

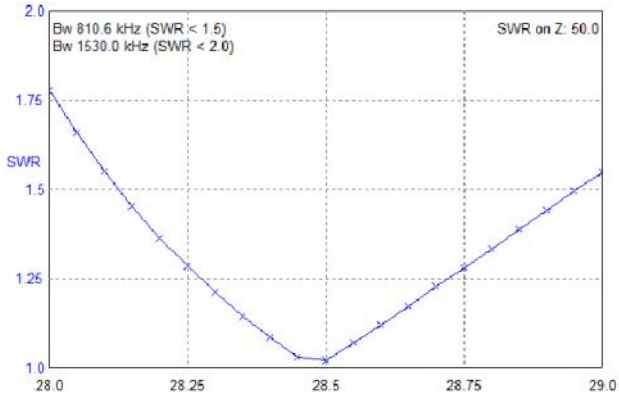

Figure 12 SWR of the Triangle Vertical Antenna at 10- meter Band

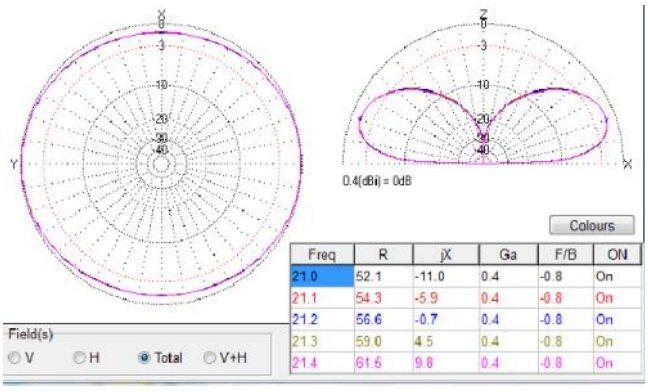

Figure 10 DD of the Triangle Vertical Antenna at 15- meter Band

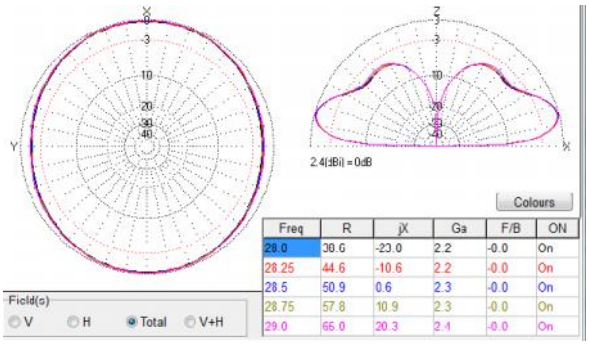

Figure 13 DD of the Triangle Vertical Antenna at 10- meter Band

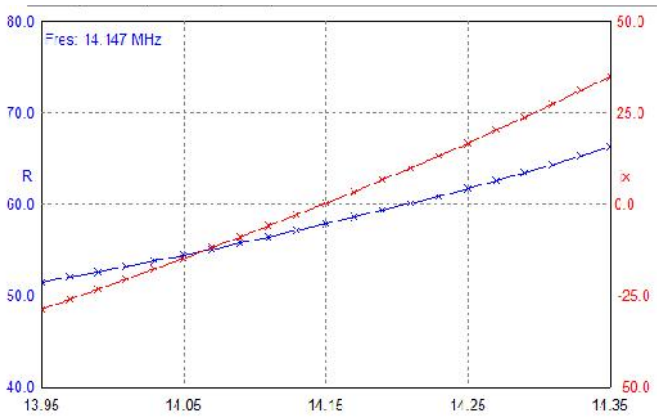

Figure 14 Impedance of the Vertical Antenna with Inductor at 20- meter Band

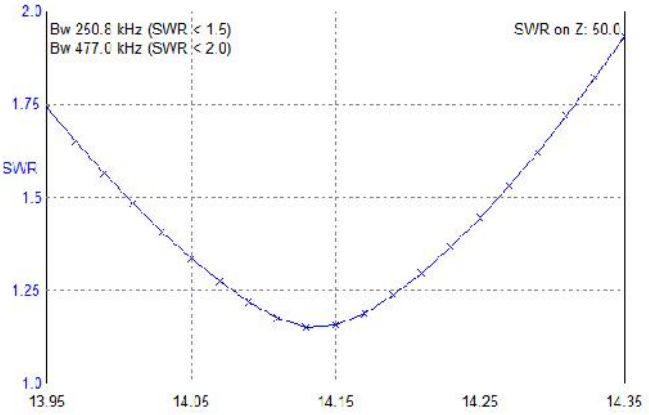

Figure 15 SWR of the Vertical Antenna with Inductor at 20- meter Band

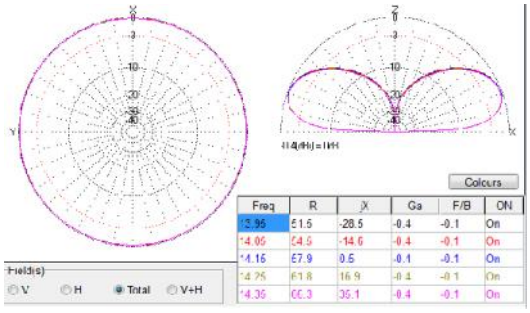

Figure 16 DD of the Vertical Antenna with Inductor at 20-meter Band

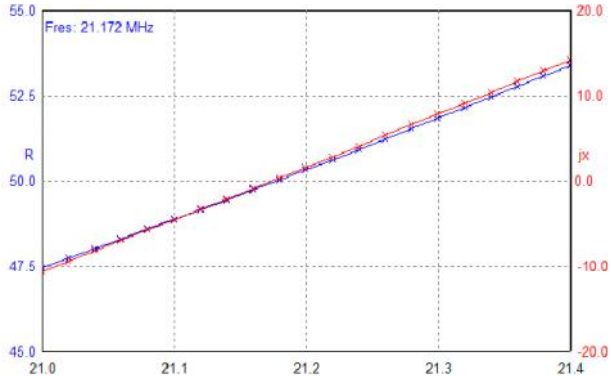

Figure 17 Impedance of the Vertical Antenna with Inductor at 15- meter Band

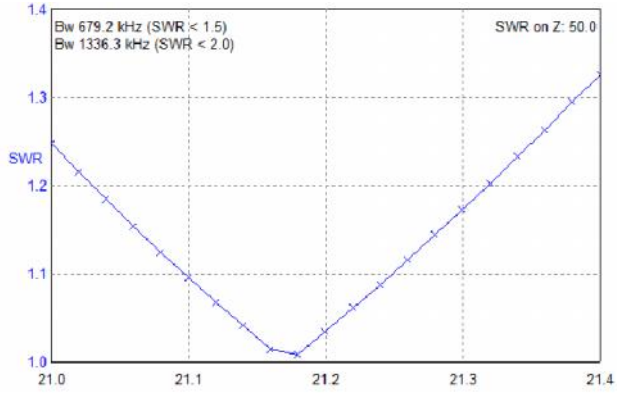

Figure 18 SWR of the Vertical Antenna with Inductor at 15- meter Band

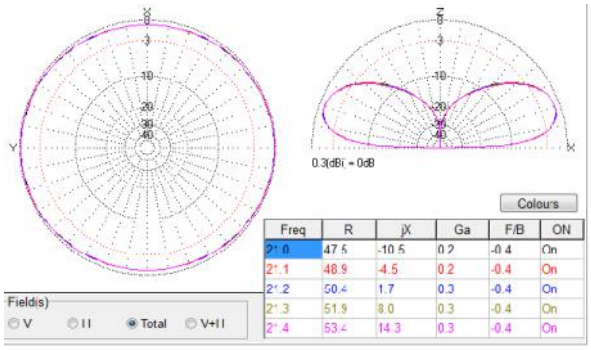

Figure 19 DD of the Vertical Antenna with Inductor at 15- meter Band

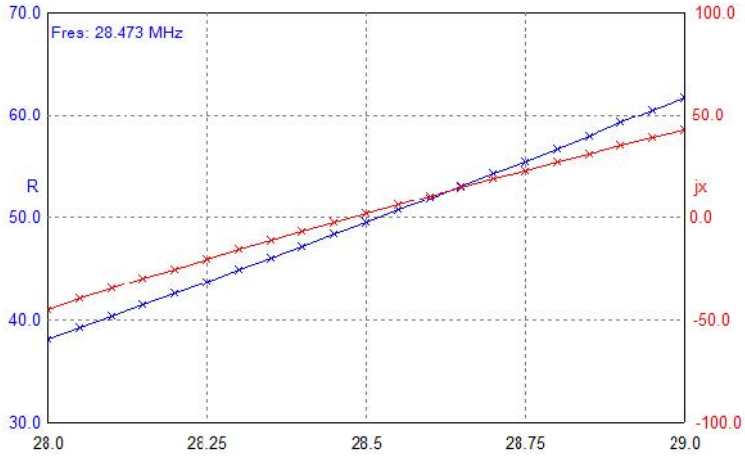

Figure 20 Impedance of the Vertical Antenna with Inductor at 10- meter Band

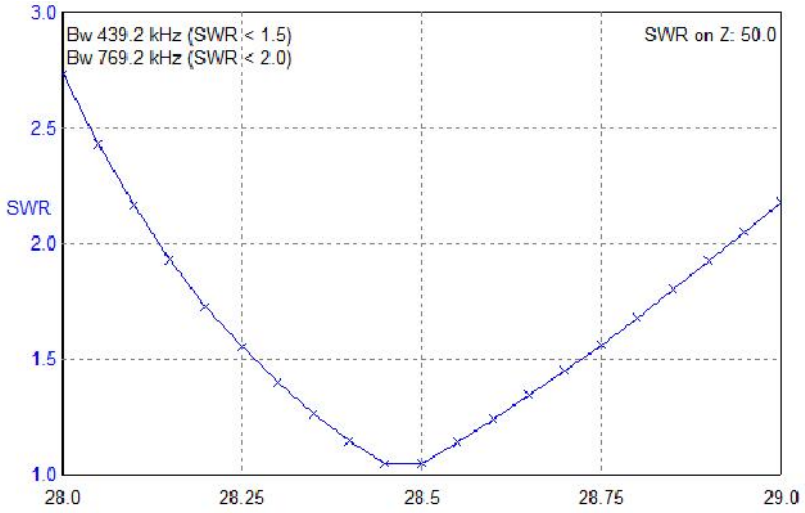

Figure 21 SWR of the Vertical Antenna with Inductor at 10- meter Band

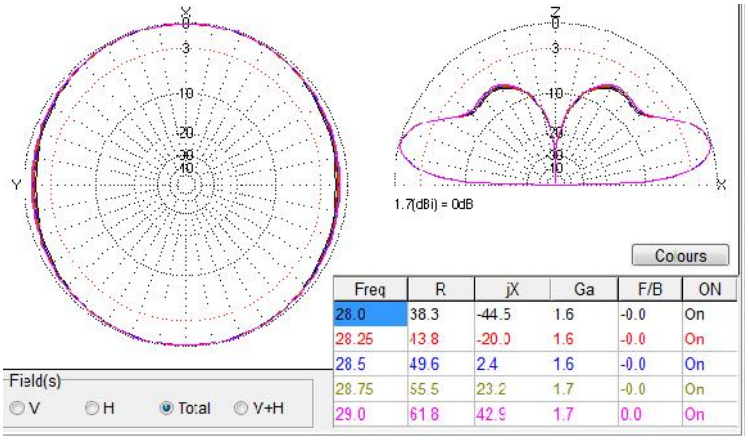

Figure 22 DD of the Vertical Antenna with Inductor at 10- meter Band