

Measurements of the Blooloc pcb with the antenna.

My preliminary conclusions:

1. The position of the antenna feed is rotated in comparison with the original design resulting in a different circular polarization (RHCP in place of LHCP).
2. The complex antenna ground plane retunes the antenna performance.
3. The return losses remain within 10dB in the band 2.4-2.5 GHz.
4. The optimal circular polarization is shifted to a lower frequency below 2.4 GHz.
5. The best axial ratio is about 4.5 dB around 2.4 GHz.

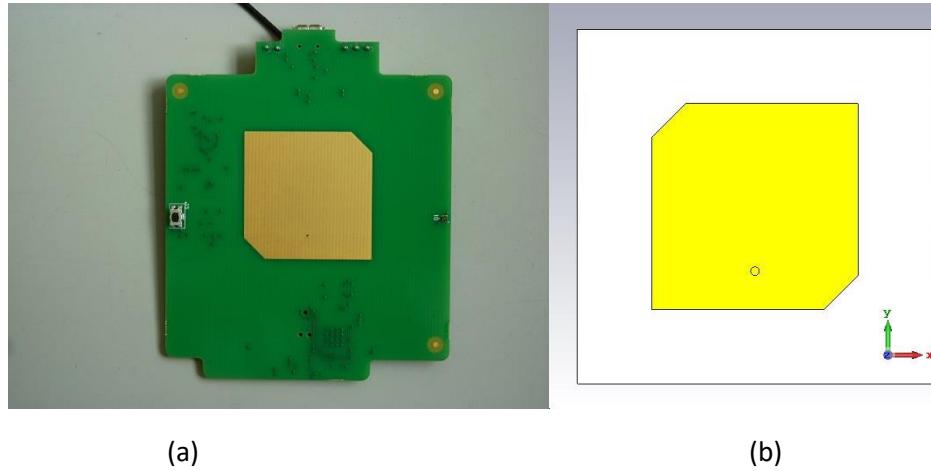


Fig. 1. Antenna topology [ a. Blooloc antenna, b. original design].

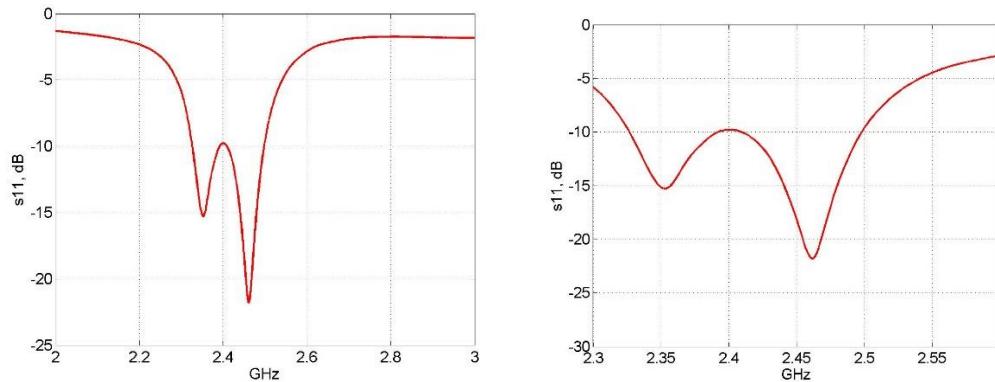


Fig. 2. Measured  $s_{11}$ .

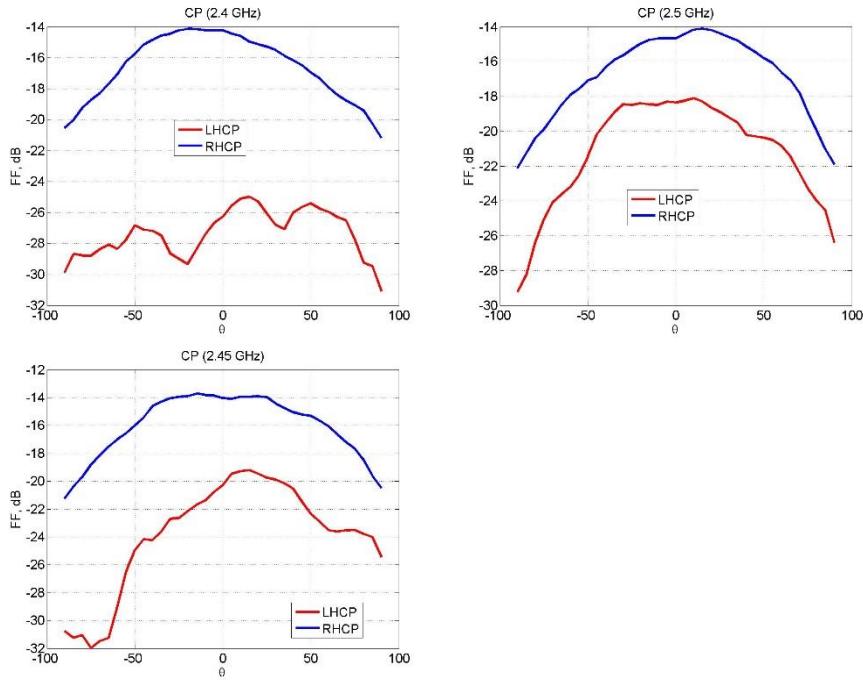


Fig. 3. Measured far field components (XoZ plane).

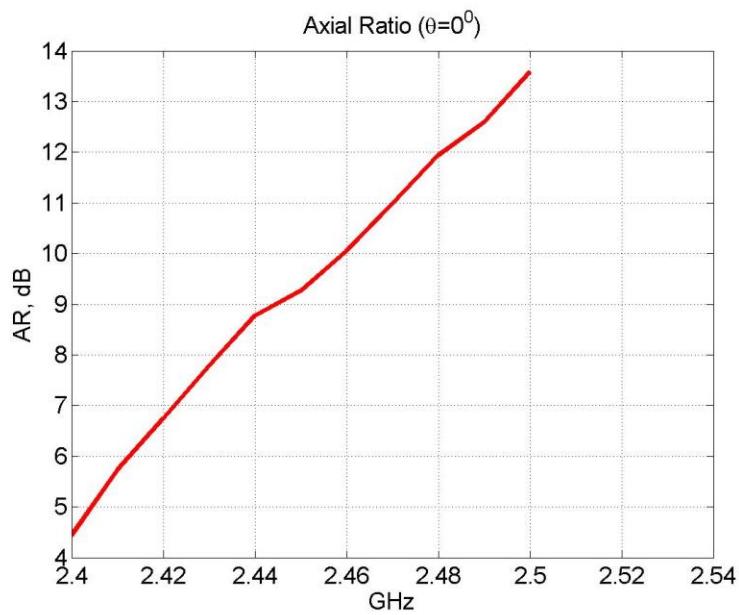


Fig. 4. Measured axial ratio in the direction normal to the antenna.