Project A

Project A is for you to learn how to HFSS and find the critical parameters for an antenna.

Follow the instructions in “HFSS Ultra High Frequency Probe” to simulate a dipole antenna with a balun. You will need to download a student version of HFSS here: <https://www.ansys.com/academic/students/ansys-electronics-desktop-student>

Submit a report which contains:

1. The drawing of the entire antenna structure with the air box shown. (50 pts)
2. Convergence Tab (10 pts)
3. S11 versus frequency (10 pts)
4. E Plane radiation pattern and H plane radiation pattern (10 pts)
5. 3-D radiation pattern (10 points)
6. Gain (5 pts) and efficiency (5 pts) from the simulations