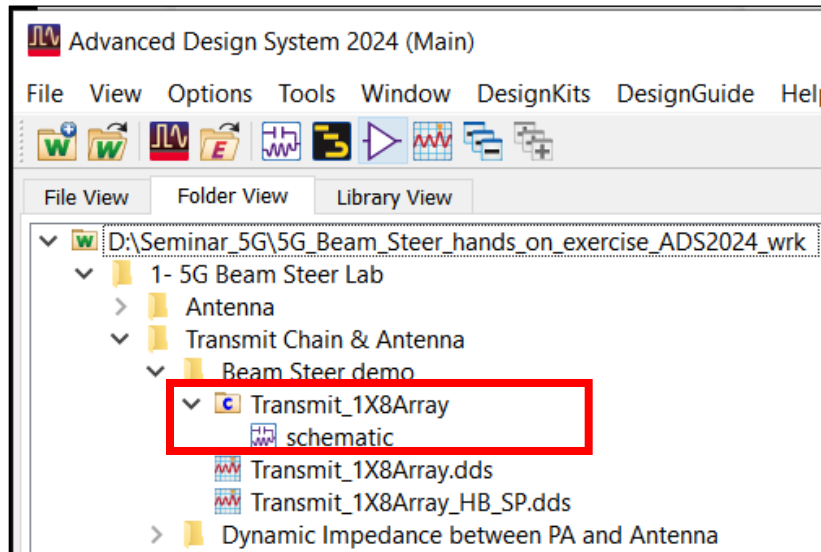


5G Beamforming Hands-on Lab

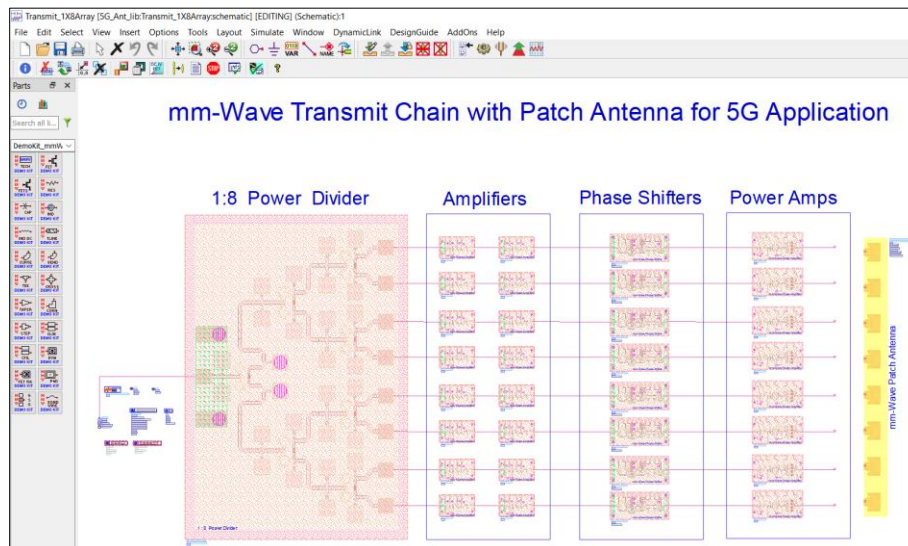
J. Sifri – October 2023

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Step #1: Open the Cell: “Transmit_1X8Array”



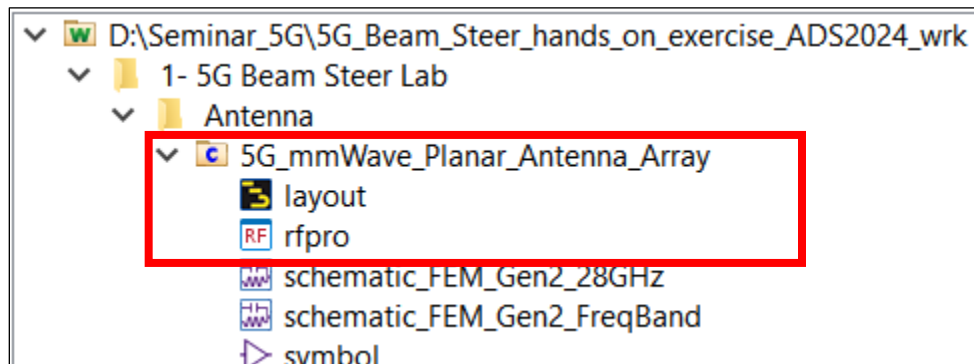
Open the schematic.



You are welcome to simulate it, but the simulation has already been done and the data set and data display are included: **Transmit_1X8Array.ds** and **Transmit_1X8Array.dds**

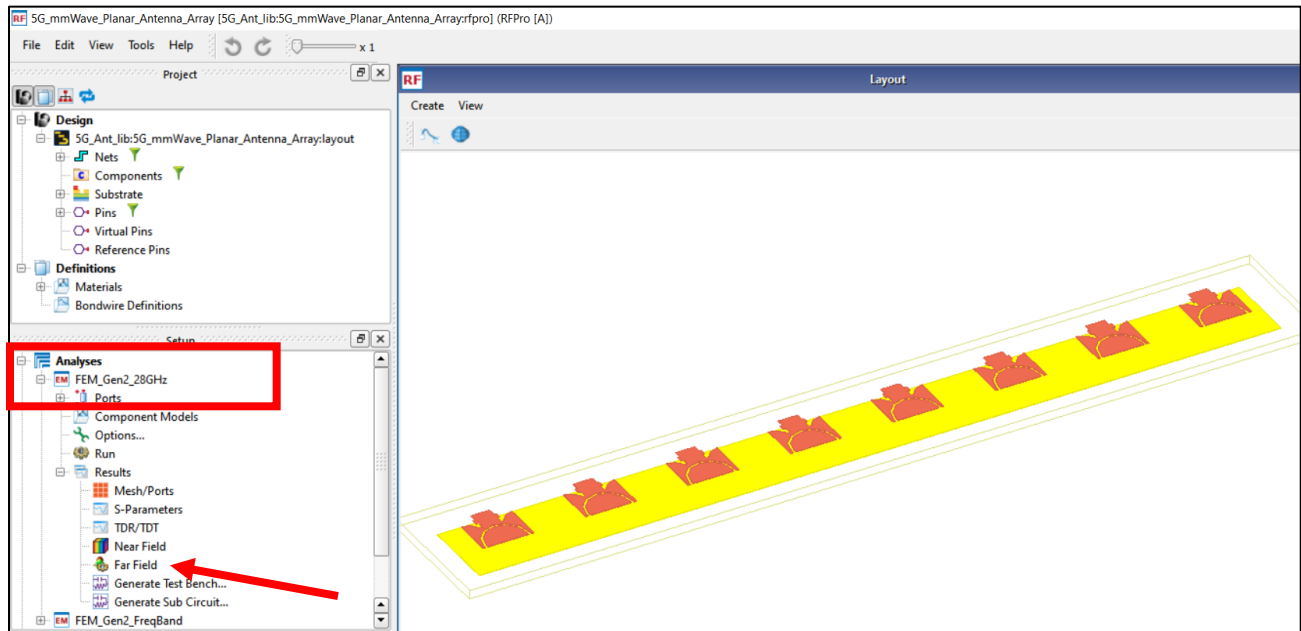
Note: This simulated data set **Transmit_1X8Array.ds** will be used to excite the Antenna in RFPro Far Field View as we will see next.

Step #2: Open the Cell: “5G_mmWave_Planar_Antenna_Array”



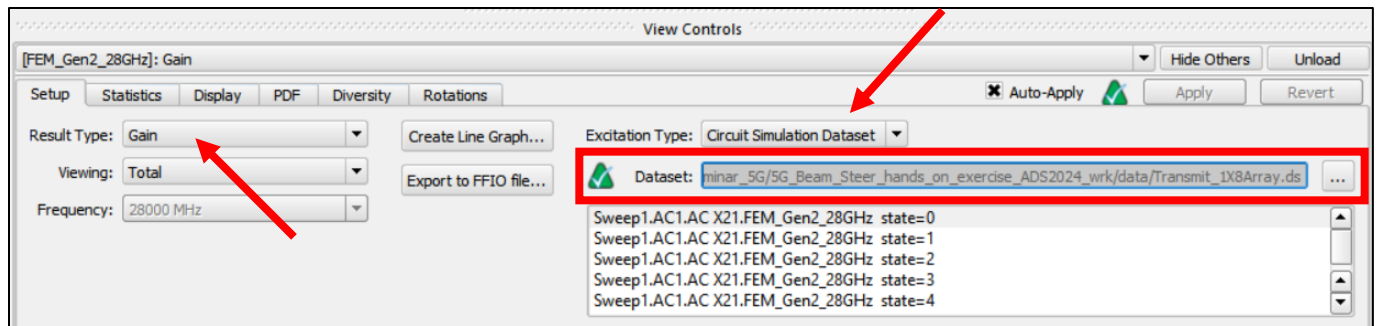
Double click on “RFPro” to open RFPro

In the RFPro page (below), use the Analysis “FEM_Gen2_28GHz” and open the Far Field

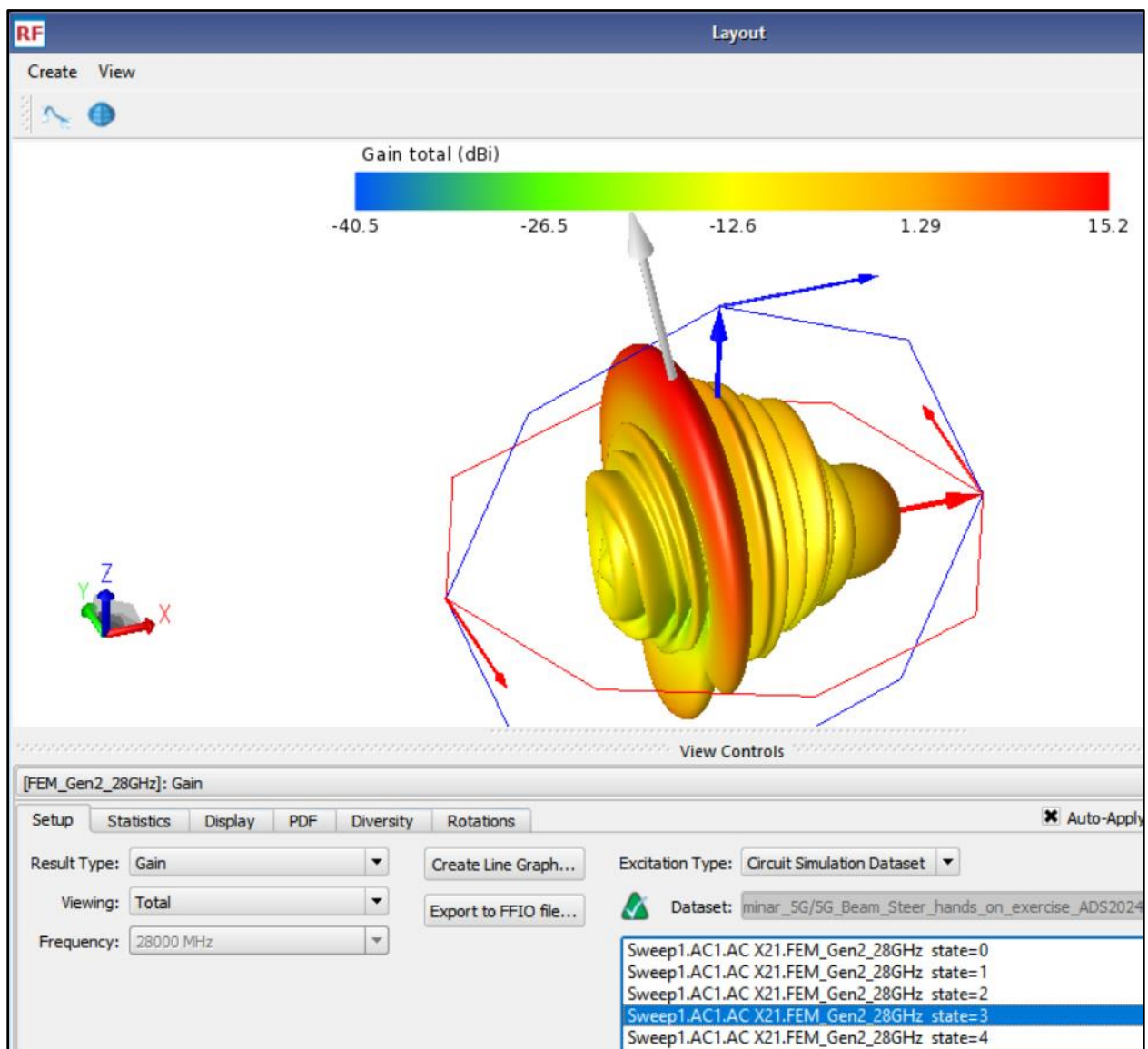


Once the “Far Field” page is opened, change the fields as shown below:

Note: As stated earlier, the data set we will use is “Transmit_1X8Array.ds” and it is located in the “data” folder. It will drive the Antenna ports and we can see the Far Field plot.



Now you can steer the beam and look at the main lobe and side lobes while changing the phase-shifter angle or states (0 to 15).



End of Lab