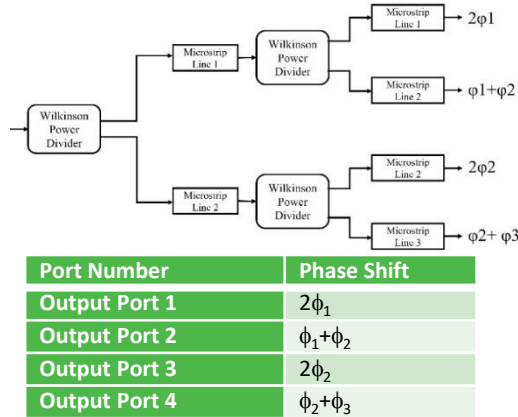


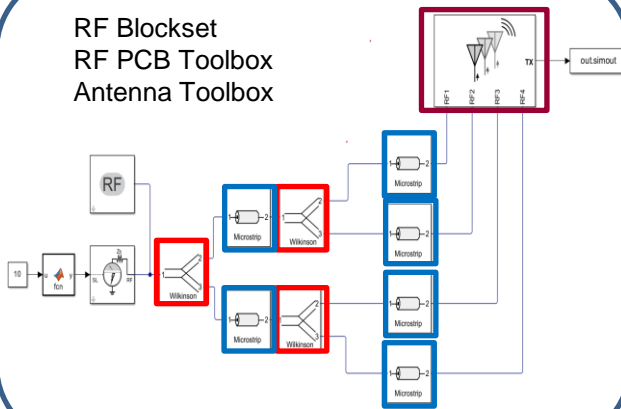
STATUS QUO

Frequency Scanning Block Diagram



NEW INSIGHTS

RF Blockset
RF PCB Toolbox
Antenna Toolbox

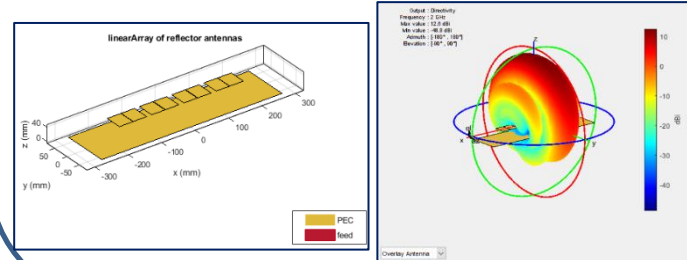


DESCRIPTION

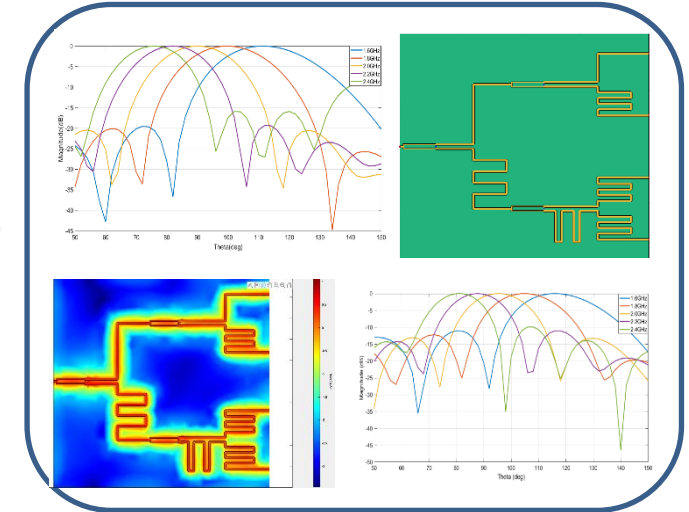
The model is mainly composed of three parts:

- ✓ Power Dividers
 - ✓ Ideal Wilkinson Power Divider blocks are used in the model.
 - ✓ The blocks can be replaced with S-Parameters from RF PCB Toolbox for practical results.
- ✓ Phase Shifter Blocks
 - ✓ The phase shifter blocks are implemented using a microstrip line and the length of the line contributes to the phase shift
- ✓ Antenna Array
 - ✓ 4 element Antenna array using Blade Dipole is used in the simulation

```
f=2;
d = dipoleBlade('Tilt',90,'TiltAxis','Y');
ant = design(reflector('Exciter',d),f*1e9);
antarray = design(linearArray('NumElements',4),f*1e9,ant);
figure,show(antarray);
figure,pattern(ant,2e9);
spar = sparameters(antarray,linspace(1.5e9,2.5e9,61));
figure,rfplot(spar);
```



QUANTITATIVE IMPACT



PROPOSED CONCEPT GOALS

