

E157 Lecture 25 Day Plan

Any questions before quiz

Quiz + Team Quiz + Talk through solution

Guest Lecturer Wednesday

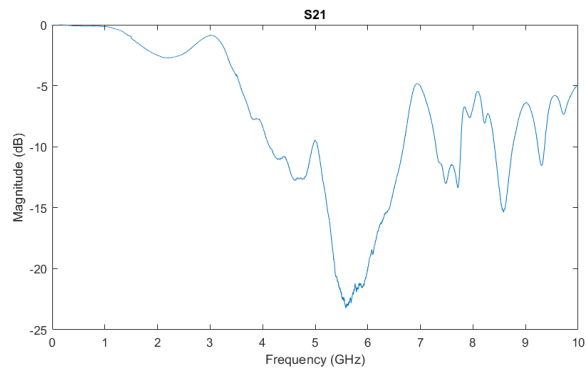
Review board designs and data below

Gradebook cleanup if time

## 0.062" 4 Layer

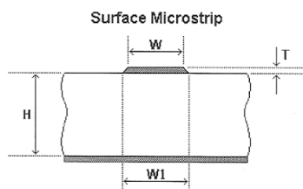


(note 1oz Cu is 1.4mil. Implies 2113+2116 is 10mil. Really: 2113 is ~2.9mil and 2116 is ~4.7)



Polar CITS25 - Differential Controlled Impedance Calculator

October 23, 2019



Height (H): 8  
 Track Width (W): 17  
 Track Width (W1): 18  
 Thickness (T): 1.4  
 Dielectric Constant (Er): 3.4

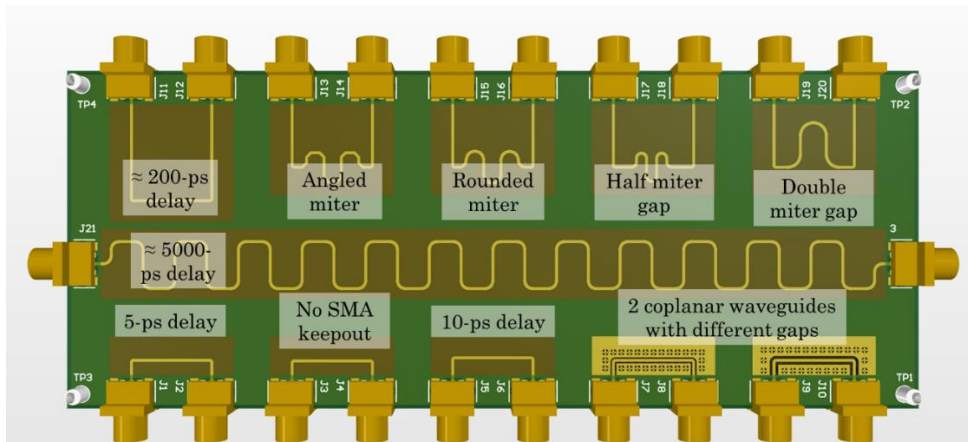
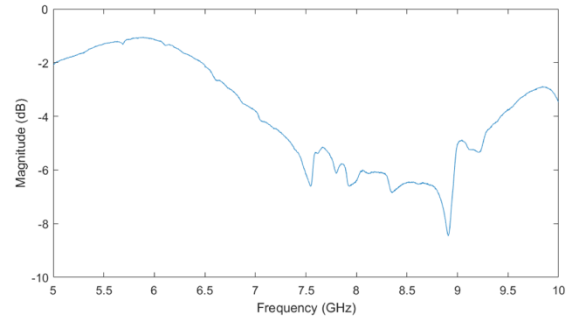
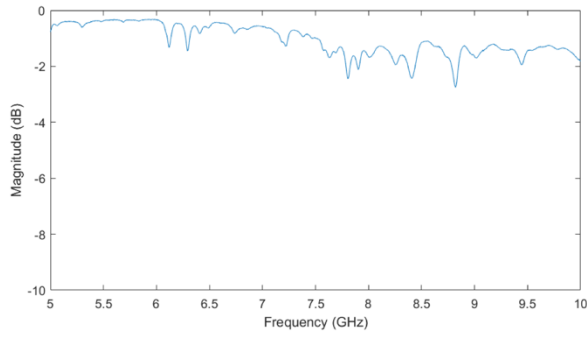
Impedance (Zo): 49.05  
 Delay (ps/in): 137.27

**WEIGHT**

- OZ**
- ROGERS 4450F
- OZ**
- ROGERS4350B
- OZ**
- ROGERS 4450F
- OZ**

**DIELETRIC THICKNESS**

- 8** mil
- 36.57** mil
- 8** mil



Features: RO4350B substrate, SMA keepouts, exposed copper traces, tapered SMA interfaces

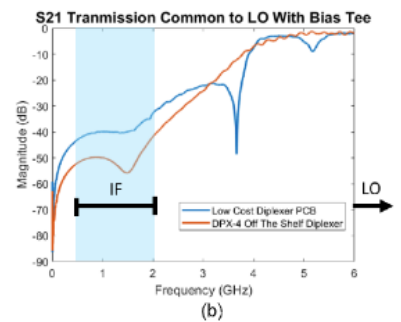
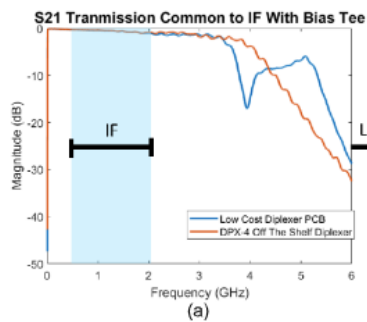


Figure 9: (a) Common to IF Transmission, (b) Common to LO Transmission

4PCB 2 layer

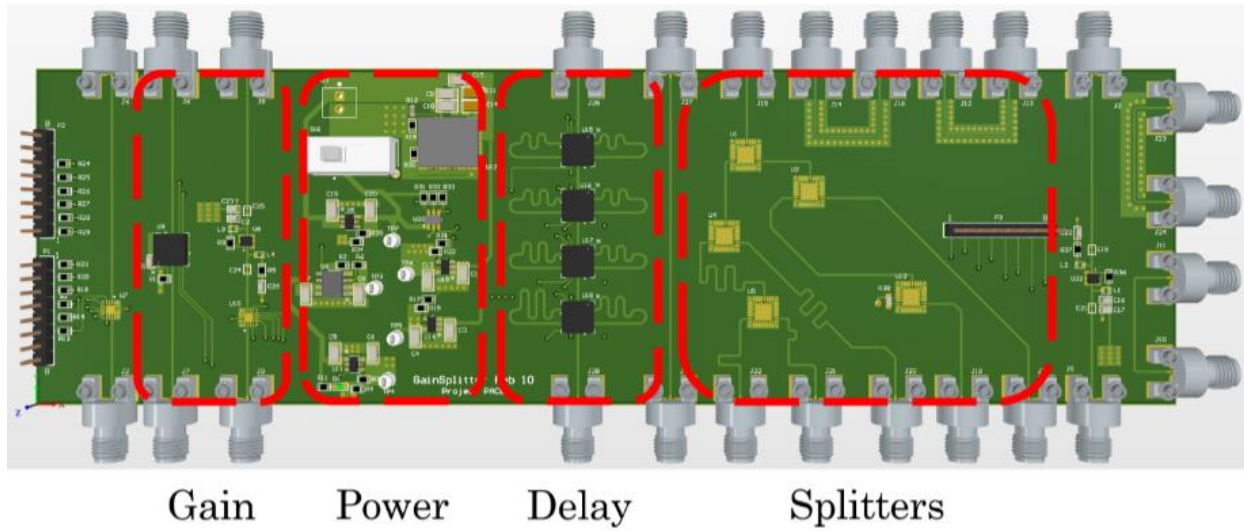


Figure 9. 3D render of Fall Prototype board showing functional blocks

ROGERS stackup w/ custom SMA landing pattern

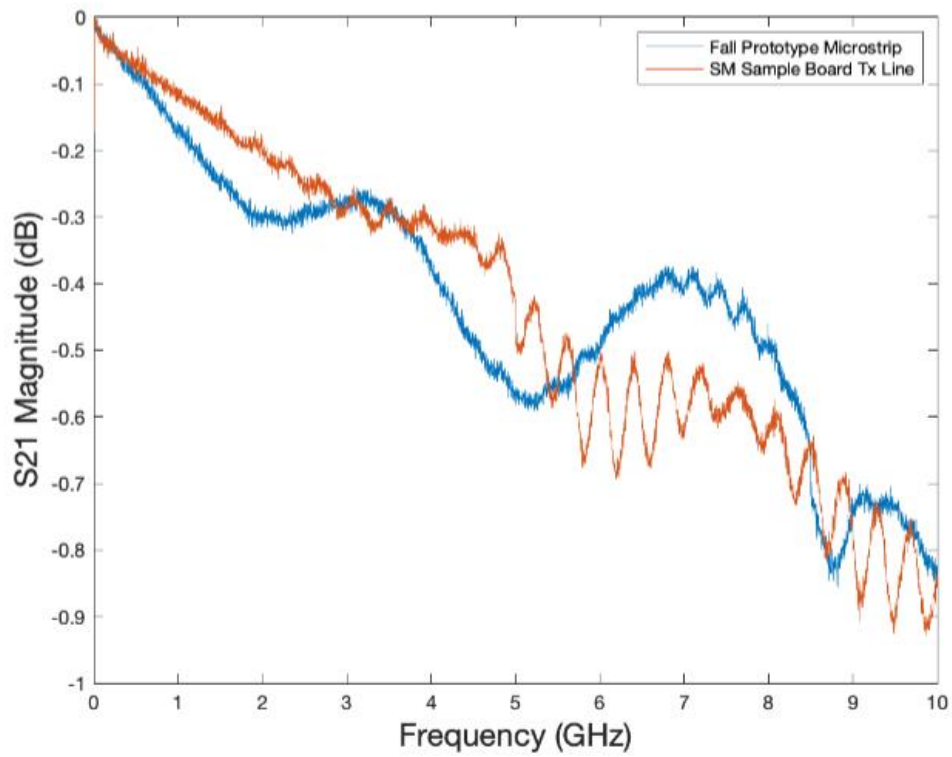


Figure 11. S<sub>21</sub> of Fall Prototype trace overlaid with S<sub>21</sub> of Tx line on Signal Microwave sample board