Patch Antenna(2.6GHz)

PROJECT MEMBERS :

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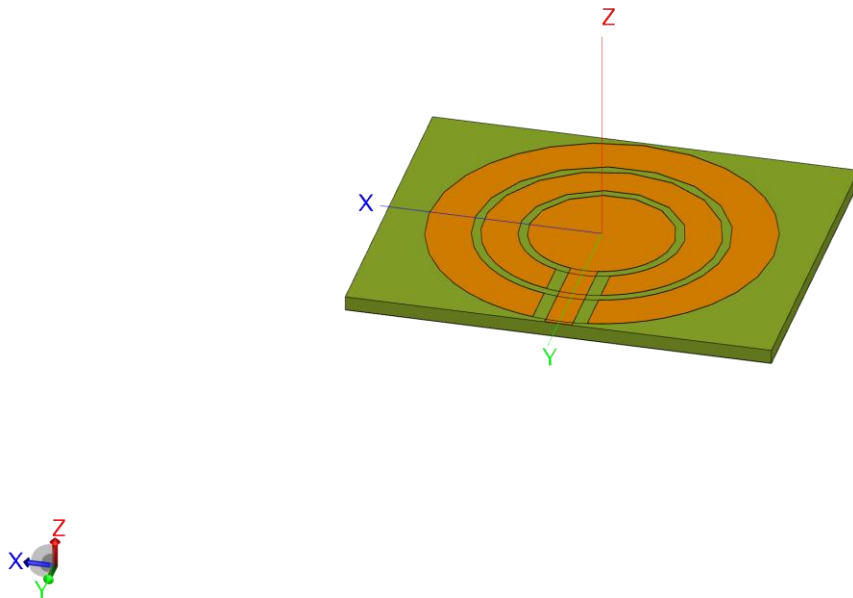
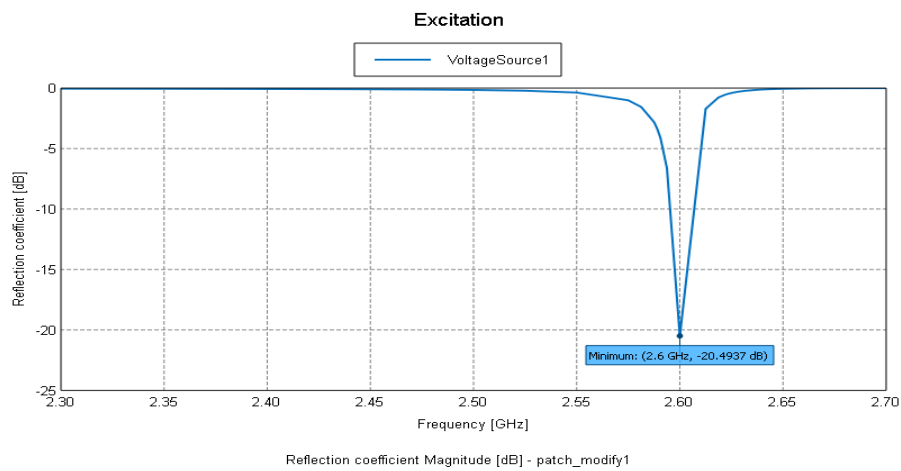△ Altair | **HyperWorks**®

Figure 1: 3D View

Return Loss Graph

Figure 2: Reflection coefficient Magnitude [dB] (Simulation)
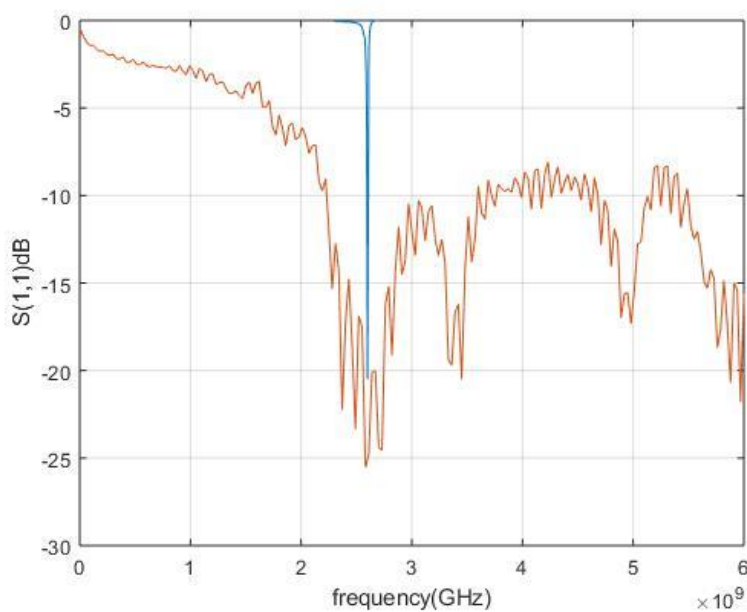
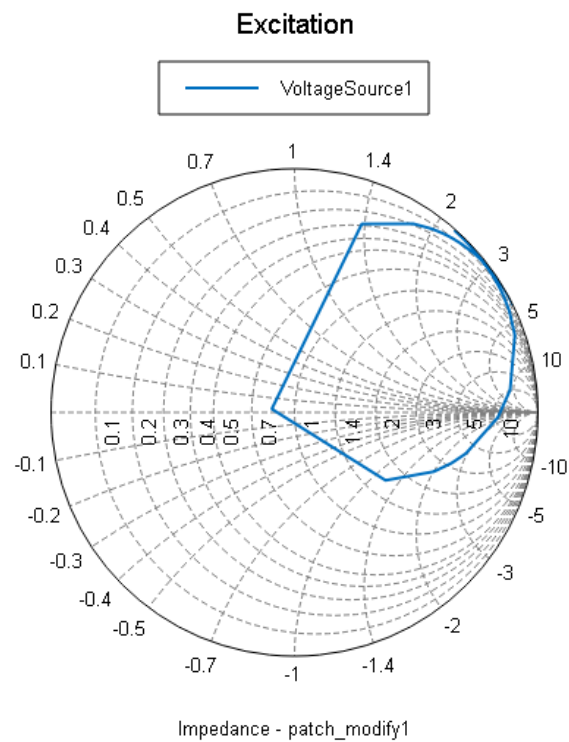Figure 3: Reflection coefficient Magnitude [dB] (Comparision)

Smith Chart

Excitation

Impedance - patch_modify1

Figure 3: Impedance

3D Radiation Pattern

Figure 4: 3D View

Plot From The VNA

Keysight Technologies: N9923A, SN: MY58331058

Fri, 15 Nov 2019 3:47:51 PM

NA

Ref 0.00 dB   S11   M1:   2.6006883 GHz -18.38 dB

Log

10.0
dB/

40

30

20

10

Cal
Rdy

0.0

-10

Data

-20

-30

Avg
1

-40

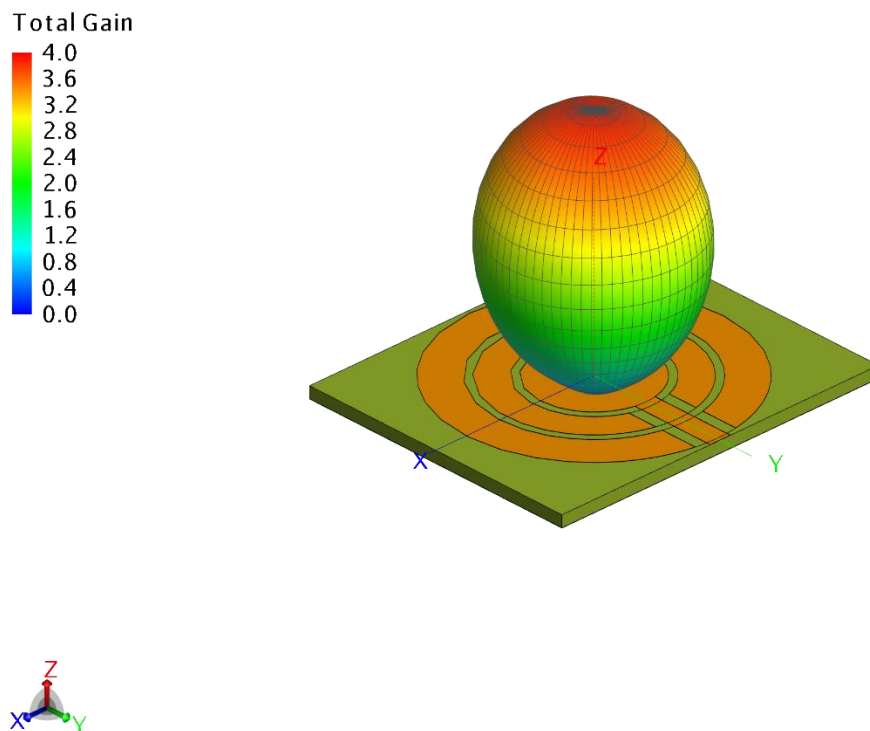Start 2.000 MHz   IF BW 10 kHz   Stop 6.000 GHz
Points 201   Output Power High   Swp 193 ms
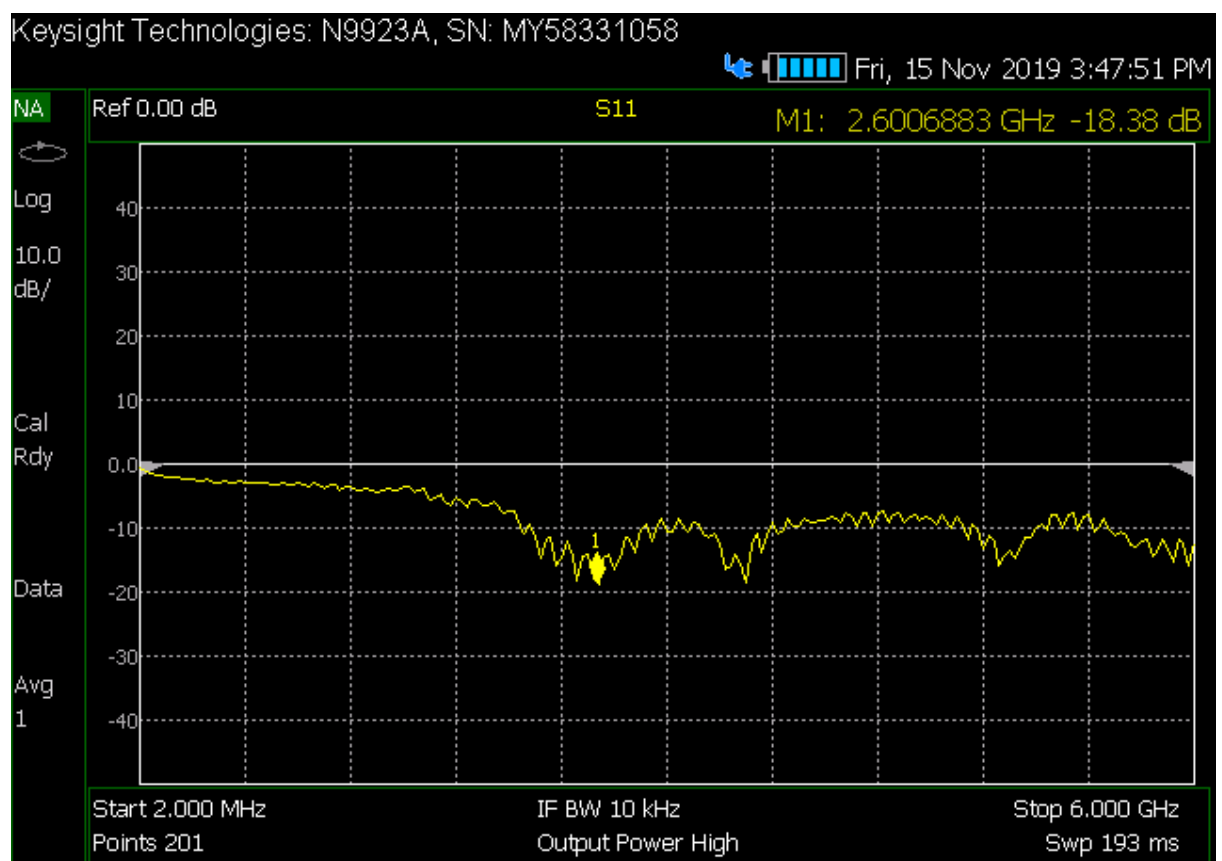
Conclusion

The Following conclusion were made:

1. On increasing length, the resonant frequency is affected and is inversely related to the length.
2. The holes should be inserted in the places where current density is minimum to avoid lot of changes in the radiation pattern.
3. By inserting slots in the antenna, resonant frequency, bandwith and the gain of the antenna changes.
4. Gain of the antenna is dependent on the slots.
5. Gain of the antenna is also dependent on the area of patch antenna . Higher the area of the copper included in patch the higher will be the gain.

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