

Antenna SPECIFICATION

Product : PCB Pattern Antenna

Model Name : LAIWB4

Date : 2023. 08. 11.

1. Test Equipment
2. Test-Setup
3. Full electrical and mechanical spec
4. Radiation plot
5. Matching circuit
6. Antenna polarization
7. Connectivity

1. Test Equipment

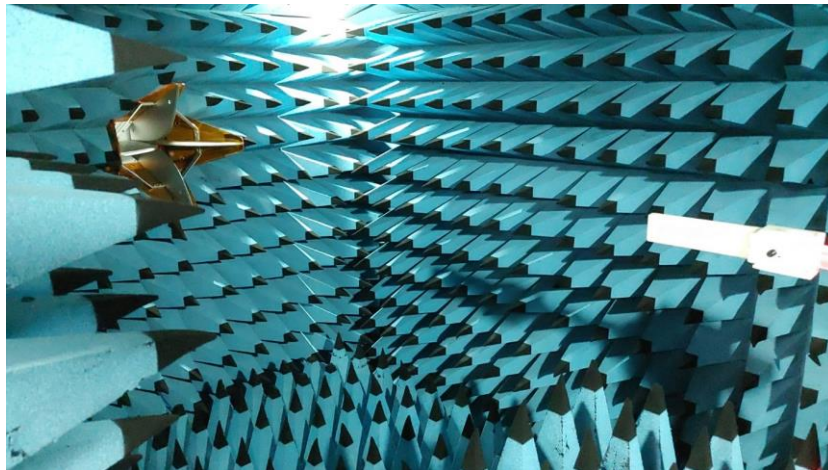
Agilent(Keysight) E5071B



2. Test Setup

Anechoic Chamber for Antenna Gain Measurement

Antenna gain has measured in below setup



3. Full electrical and mechanical spec

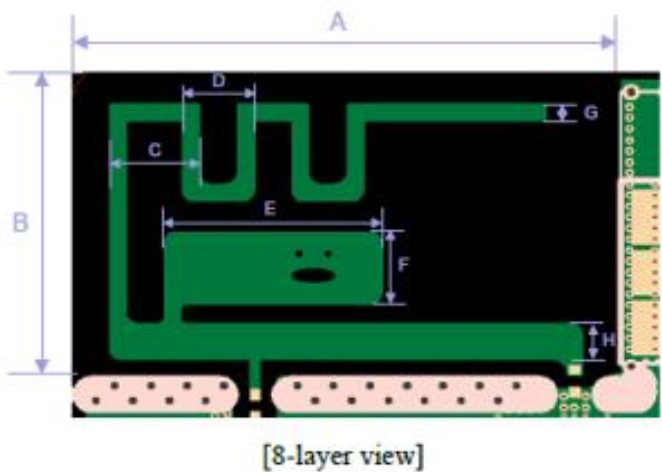
3.1 Electronical Spec

- 1. Frequency Range : 2400MHz ~2500MHz
- 2. Impedance : 50 ohm
- 3. Gain : -1.52 dBi(Avg)/ 2.6dBi(Peak)

Freq[MHz]	Eff[%]	Avg[dBi]	Peak[dBi]
2440	53.01	-2.76	1.83
2442	70.55	-1.52	2.6
2485	62.75	-2.02	1.36

3.2 Mechanical Spec

- 1. Antenna size is 15 × 8mm including fill-cut area.
- 2. 2400MHz pattern antenna is drawn at the PCB bottom side and other side has only fill-cut area.



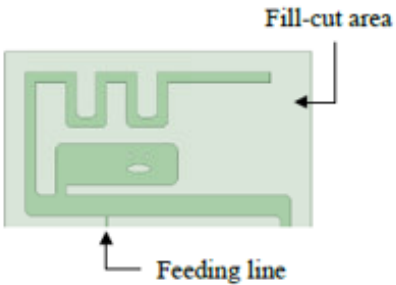
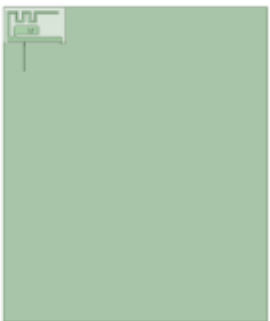
A: 15 mm
B: 8 mm
C: 2.5 mm
D: 2 mm
E: 6 mm
F: 2 mm
G: 0.5 mm
H: 1 mm



[7-layer view]

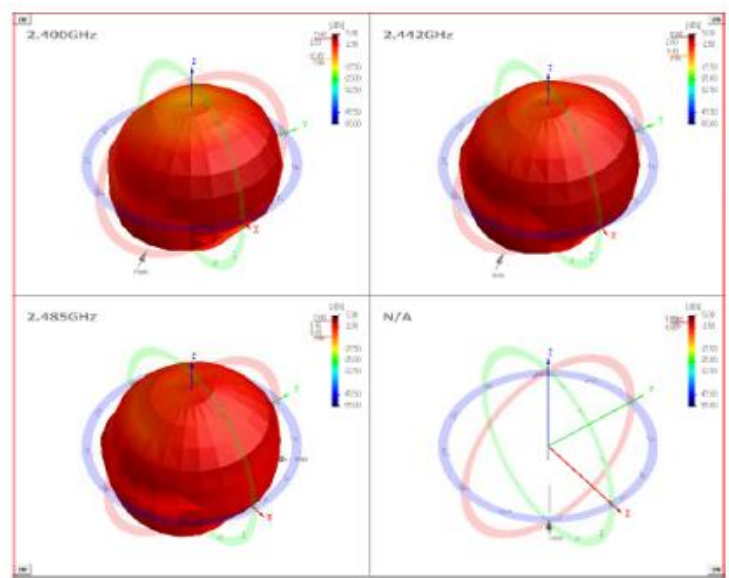


[Other layers view]



4. Radiation plot

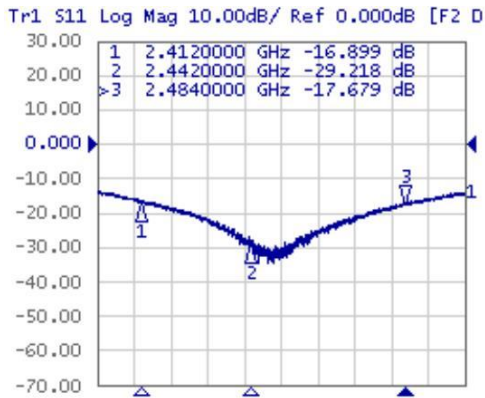
4.1 Radiation Plot(3D)



<Antenna Gain>

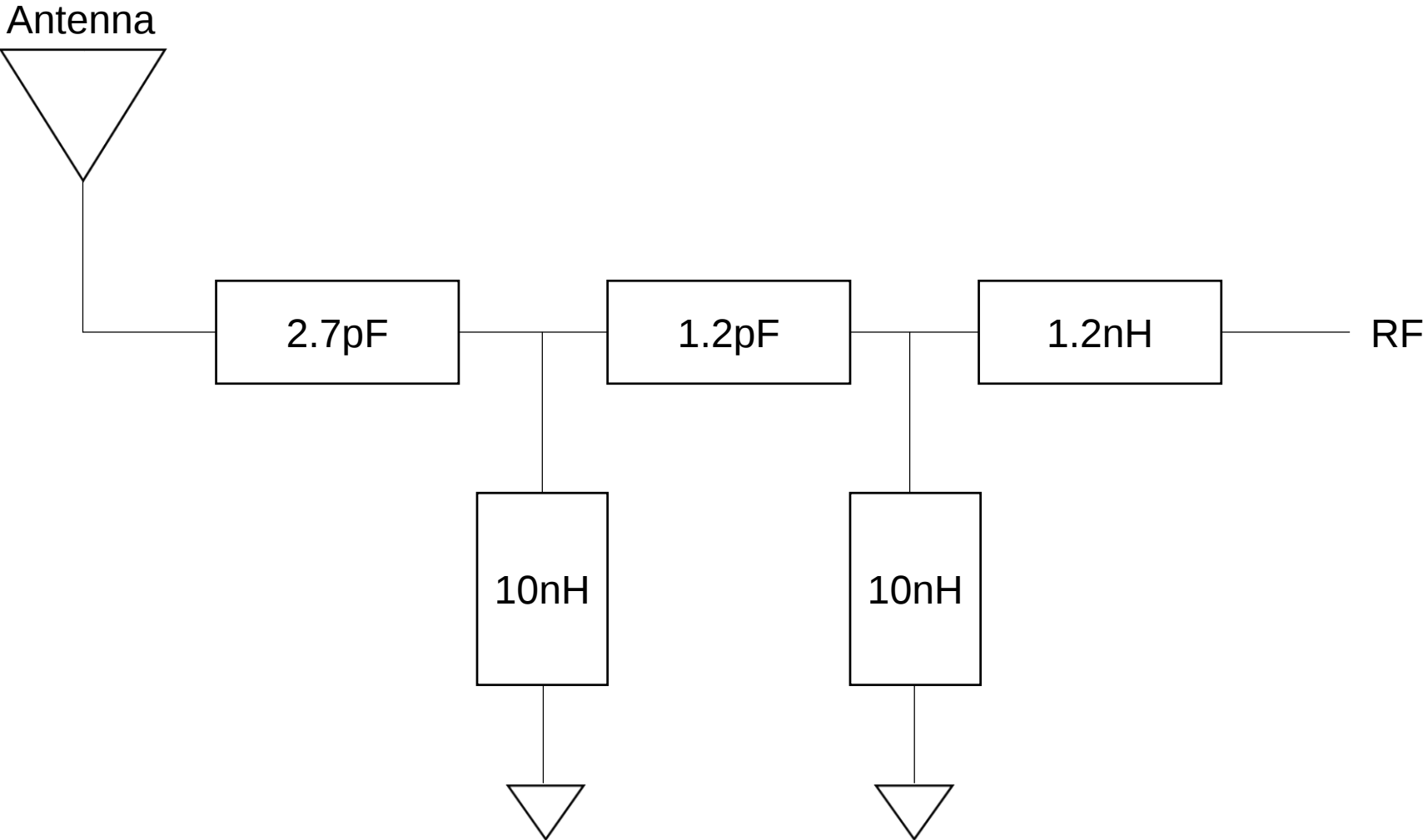
Freq[MHz]	Eff[%]	Avg[dBi]	Peak[dBi]
2440	53.01	-2.76	1.83
2442	70.55	-1.52	2.6
2485	62.75	-2.02	1.36

4.2 S11



5. Matching circuit

Antenna matching circuit



6. Antenna polarization

-Horizontal and Vertical Polarization

7. Connectivity

-PCB Pattern Antenna

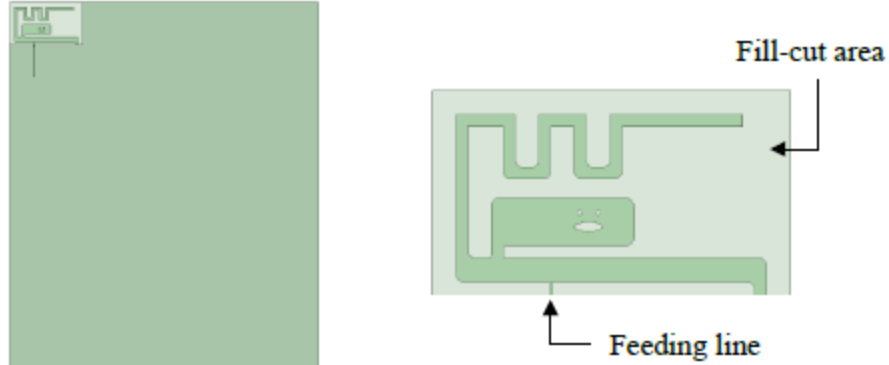


PCB Pattern Antenna

■ **Model Name:** WIFI Pattern Antenna

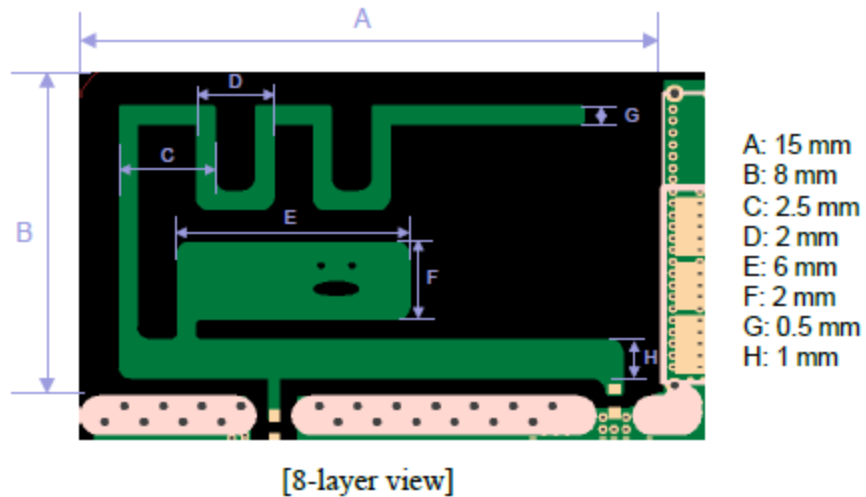
■ **Maker:** LG Electronics

■ **Appearance**



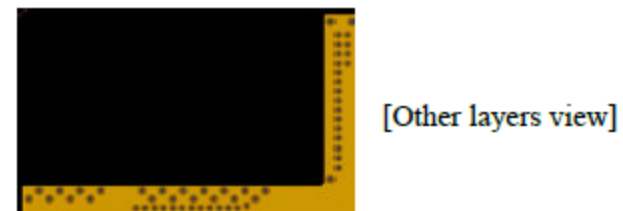
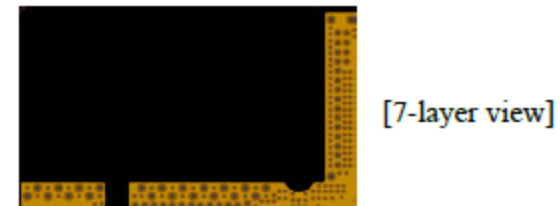
■ **Dimension**

- Notes: 1. Antenna size is 15 x 8mm including fill-cut area
2. WIFI pattern antenna is drawn at the PCB bottom side and Other side has only fill-cut area.

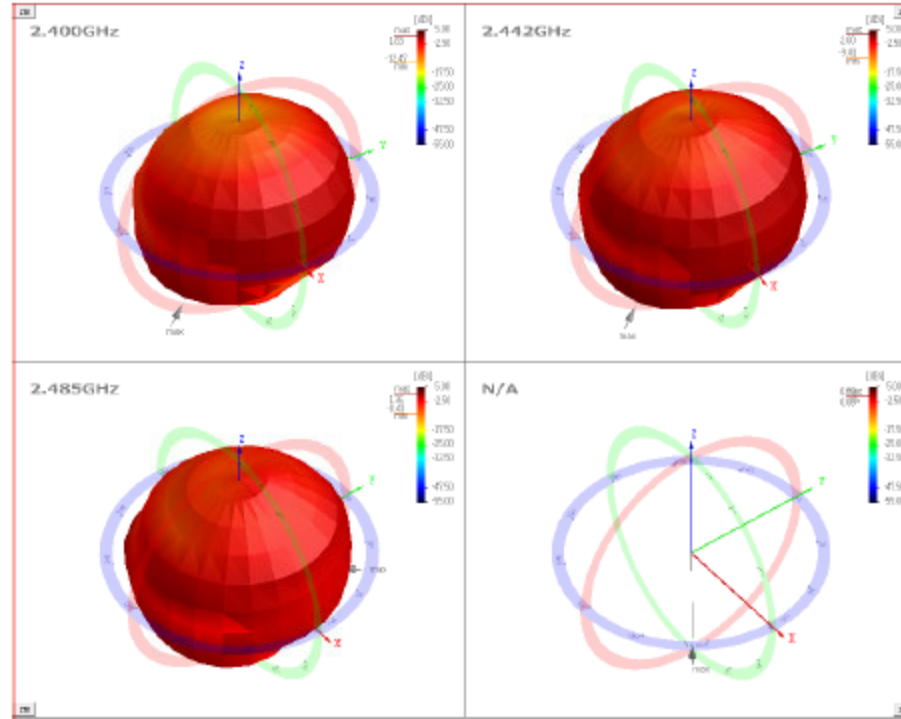


■ **Technical data**

- Frequency range
- 2400 ~ 2500MHz
- Impedance: 50 Ohm
- Gain: -1.52dBi(Average)/ 2.6dBi(Peak)



■ Radiation Pattern



■ Average Gain

Freq.[MHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
2400	53.01	-2.76	1.83
2442	70.55	-1.52	2.6
2485	62.75	-2.02	1.36