

# 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

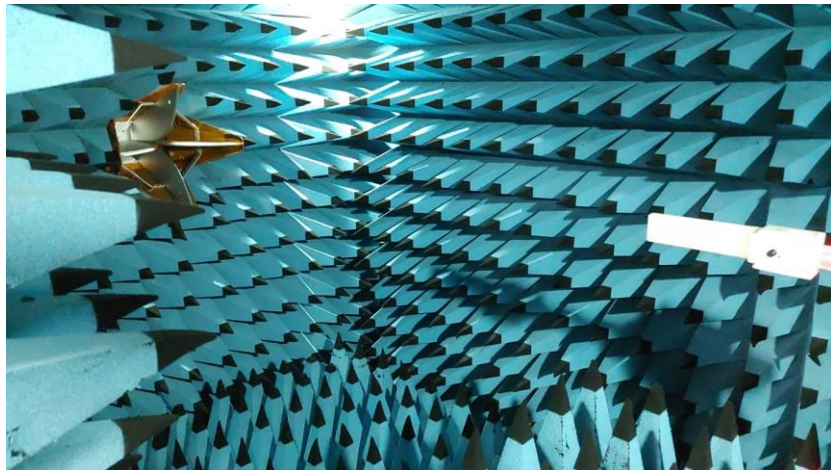
Agilent(Keysight) E5071B



## 2. Test Setup

Anechoic Chamber for Antenna Gain Measurement

Antenna gain has measured in below setup



### 3. Full electrical and mechanical spec

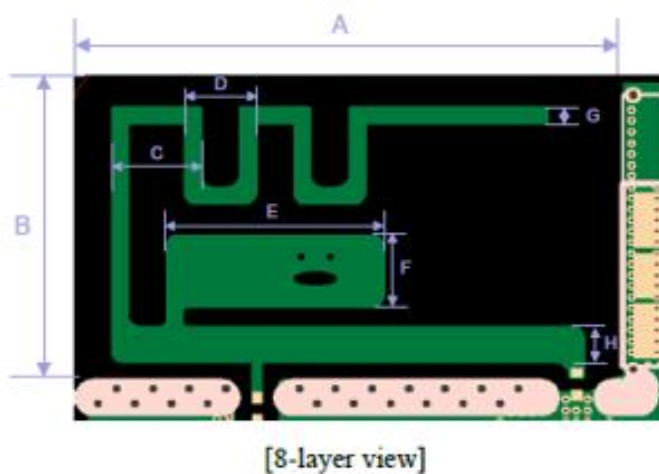
#### 3.1 Electronical Spec

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

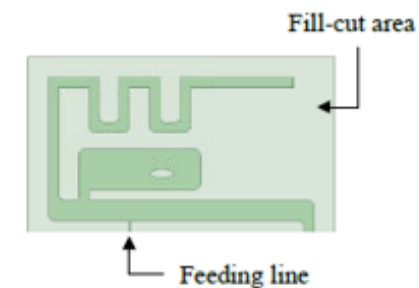
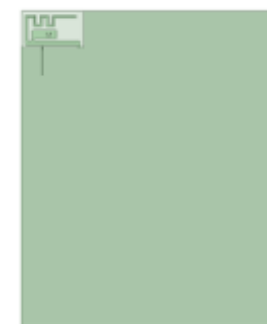
Freq[MHz]	Eff[%]	Avg[dBi]	Peak[dBi]
2440	53.01	-2.76	1.83
2442	70.55	-1.52	2.6
2485	62.75	-2.02	1.36

#### 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.

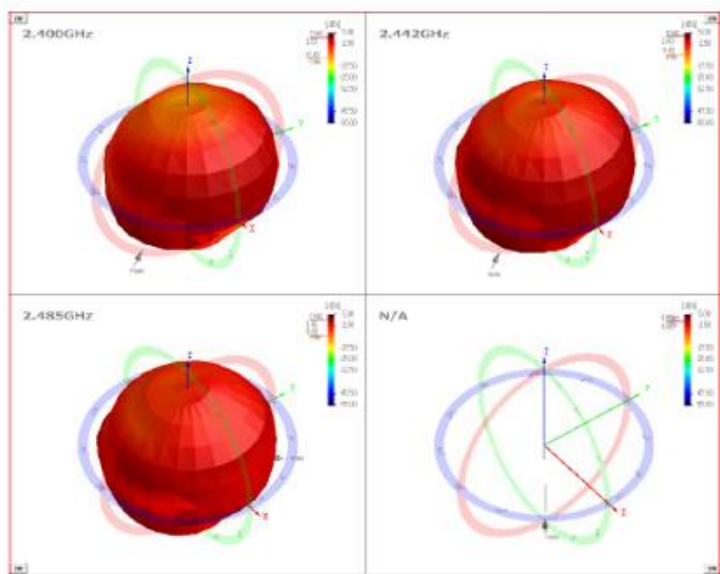


A: 15 mm  
 B: 8 mm  
 C: 2.5 mm  
 D: 2 mm  
 E: 6 mm  
 F: 2 mm  
 G: 0.5 mm  
 H: 1 mm



## 4. Radiation plot

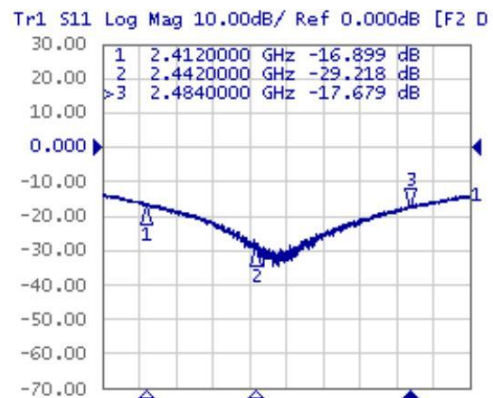
### 4.1 Radiation Plot(3D)



### <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

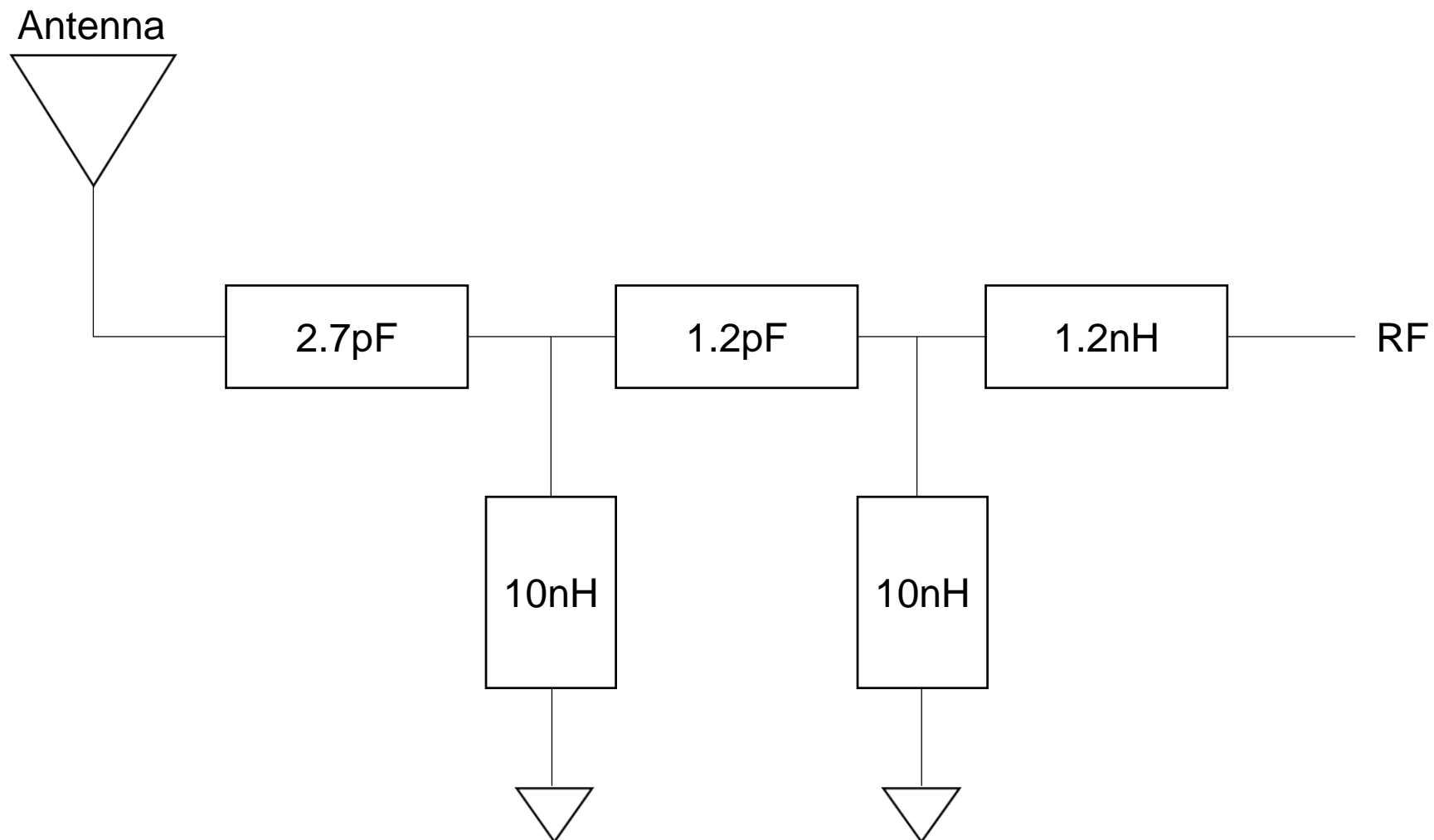
### 4.2 S11





## 5. Matching circuit

Antenna matching circuit



## 6. Antenna polarization

-Horizontal and Vertical Polarization

## 7. Connectivity

-PCB Pattern Antenna

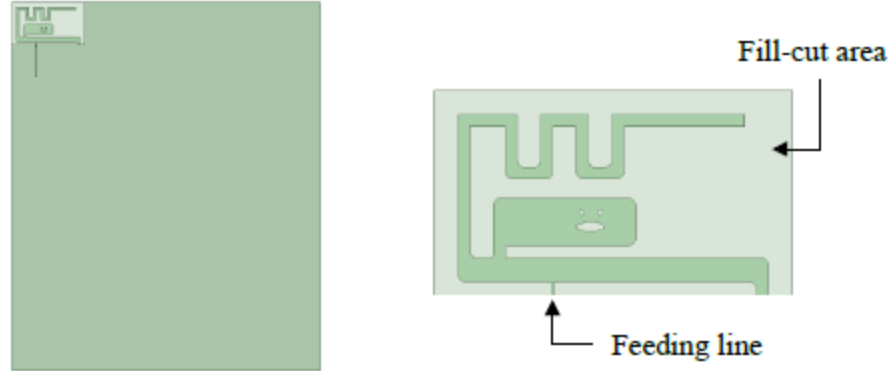


PCB Pattern Antenna

■ **Model Name:** WIFI Pattern Antenna

■ **Maker:** LG Electronics

■ **Appearance**

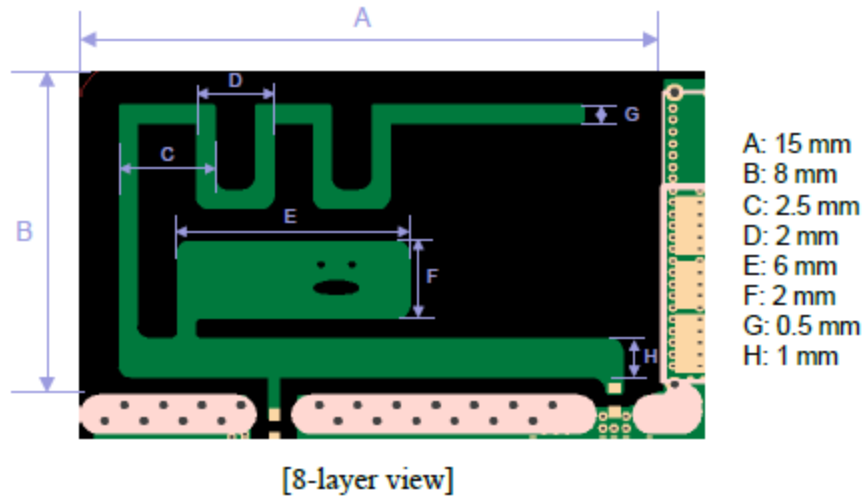


■ **Technical data**

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

■ **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.



[8-layer view]



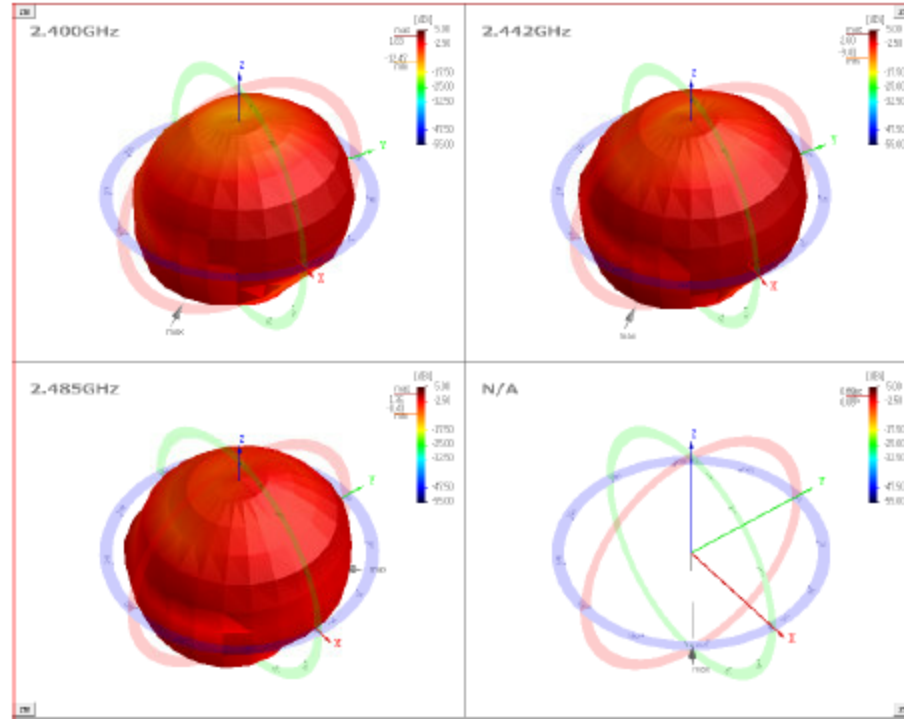
[7-layer view]



[Other layers view]



## ■ 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