

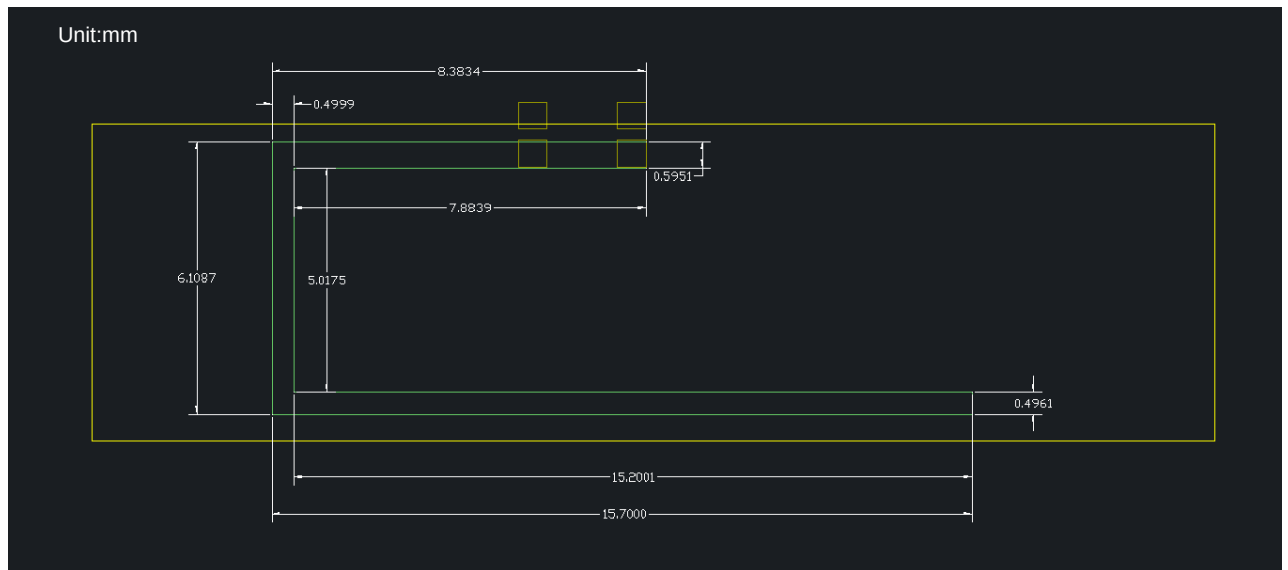
Bluetooth antenna of PCB on-board specification

1, Index

Item	Content	Page	Remark
1	Index	1	
2	Spec Drawing	2	
3	Specification	2	
4	Antenna On Test Board	3	
5	Antenna Data	4	
6	Radiation Pattern	5	

Document Type: B1 Pro 2.4GHz Antenna
Document Version: V1.0
Release Date: Jul. 10 , 2025

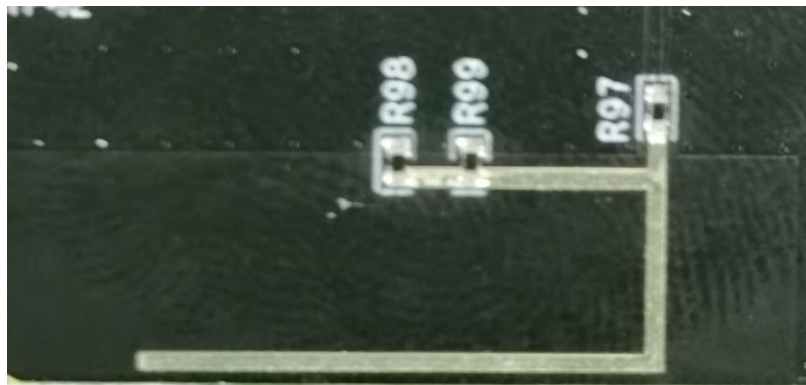
2, Spec Drawing



3, Specification

Product Model: B1 Pro 2.4GHz Antenna

Sample Photo:



A. Electrical Characteristics

Frequency	2400 ~ 2500 MHz
S.W.R.	≤ 2.0
Gain	2.08 dBi
Efficiency	~ 50%
Polarization	Linear
Impedance	50 Ohm

B. Material & Mechanical Characteristics

Material of Radiator	Spray tin
----------------------	-----------

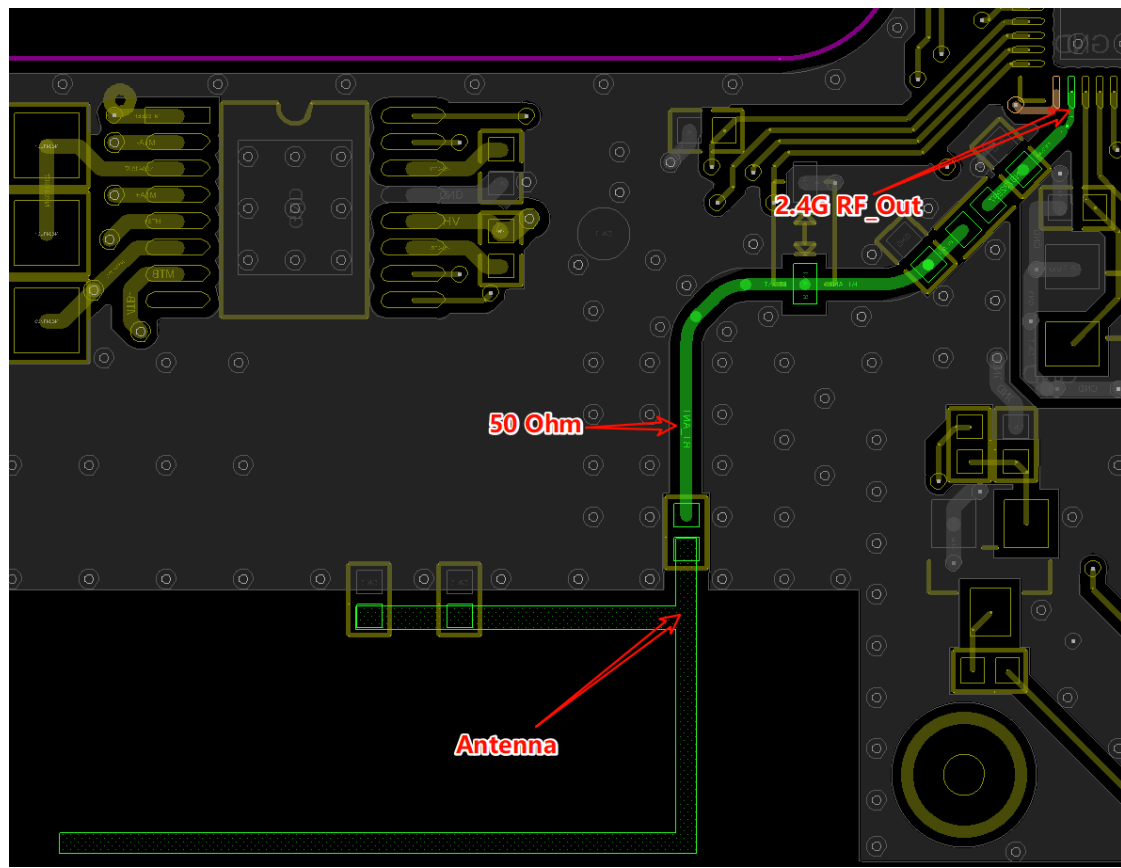
C. Environmental

Operation Temperature	- 40°C ~ + 85°C
Storage Temperature	- 40°C ~ + 105°C

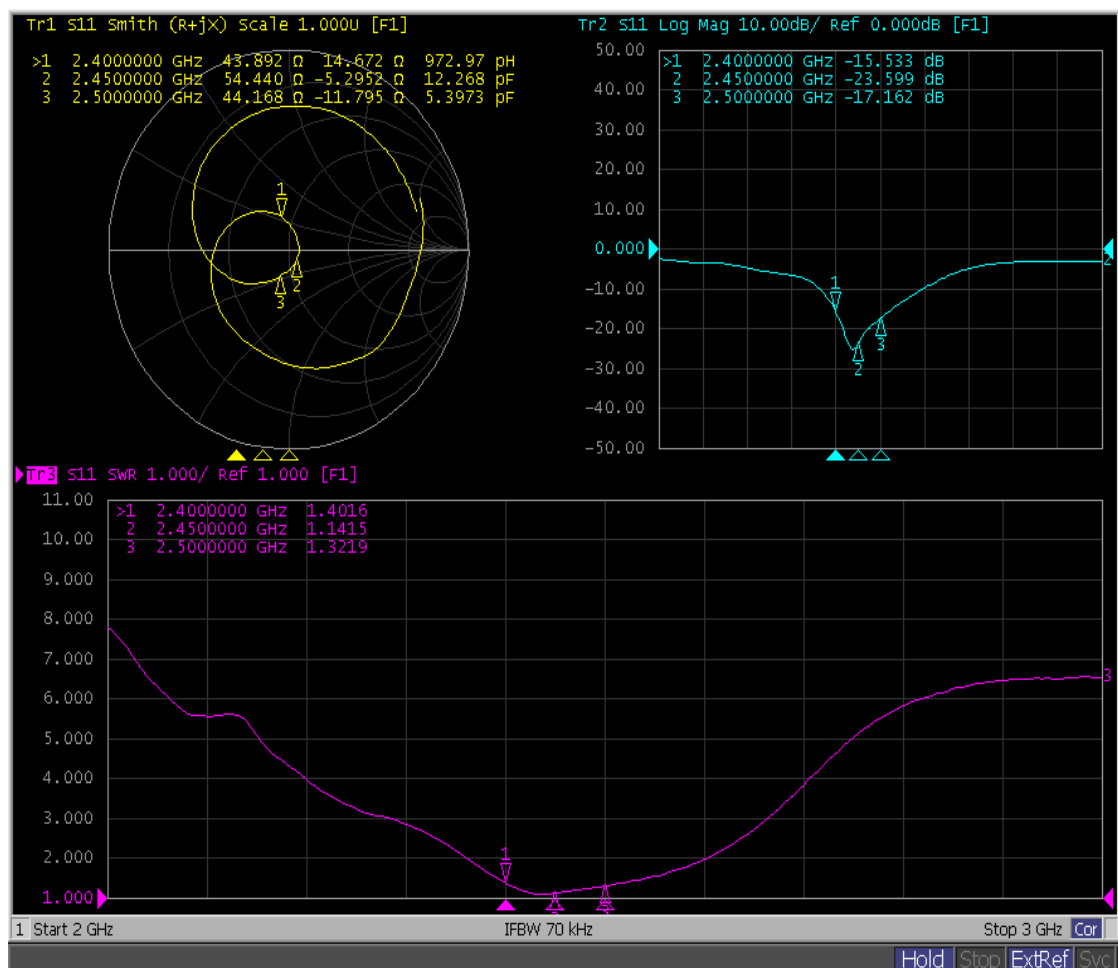
D.Manufacturer Information

Address:No. 20, Xincheng eighteen Road, Changqing Street, Dongxihu District, Wuhan, Hubei Province,China

4, Antenna On Test Board



5, Antenna data



➤ S-Parameters

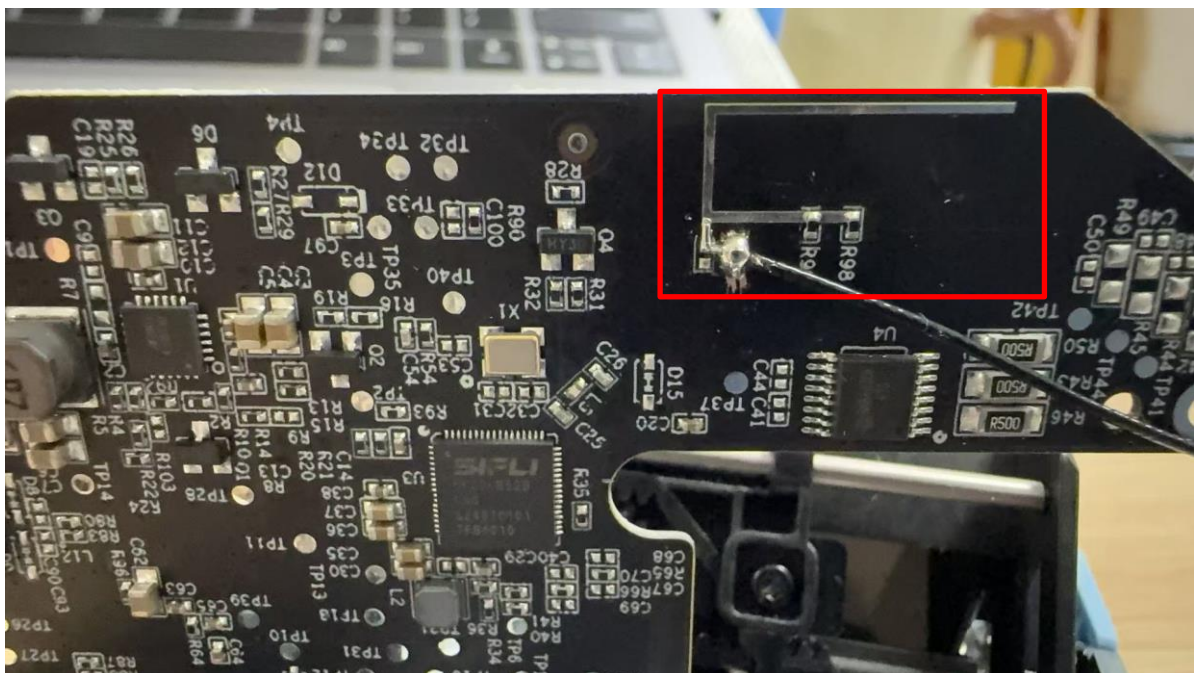
Freq/MHz	2400	2450	2500
VSWR	1.40	1.14	1.32
Return Loss	-15	-23	-17

➤ Gain & Radiation Efficiency

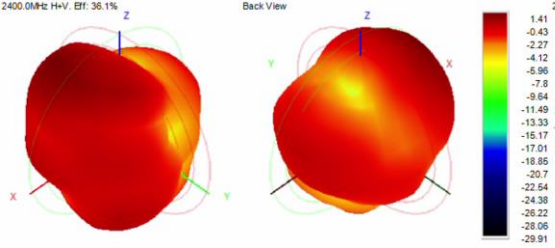
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-4.43	-4.15	-3.99	-3.85	-3.69	-3.49	-3.27	-3.23	-3.15	-3.09	-3.03
Gain (dBi)	1.41	1.77	1.72	1.56	1.60	1.69	1.62	1.62	2.08	1.90	1.88
Efficiency (%)	36.08	38.45	39.92	41.18	42.75	44.77	47.06	47.53	48.43	49.10	49.74

6, Radiation Pattern

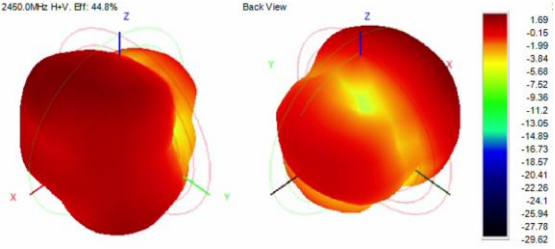
Radiation Pattern and Gain were dependent on measurement board design. The specification of coil antenna was measured based on the PCB size and installation position as shown in the below figure Test Board.



➤ 2400MHz



➤ 2450MHz



➤ 2500MHz

