

Antenna SPEC

Model name: H3-BD

Testing Date: 2025-2-13

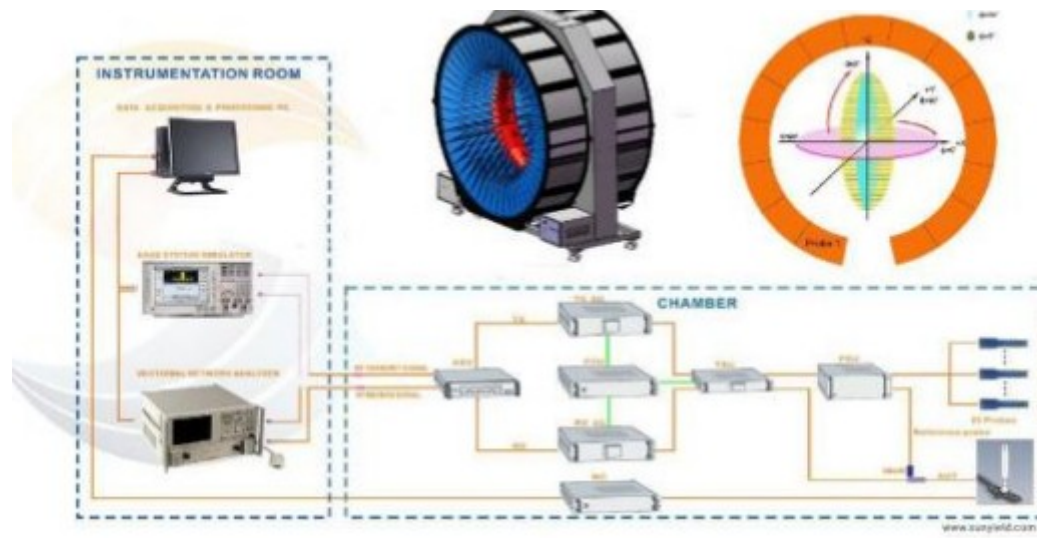
Testing Equipment: 3D Darkroom, AgilentE5062A

Testing sample: 2.4G Bluetooth Antenna

Manufacturer: Shenzhen Dellking Co.,Ltd.

Address: Room 401, Building 8, Lianchuang Technology Park, No.
21 Bulan Road, Xialilang Community, Nanwan Street, Longgang
District, Shenzhen City, Guangdong, China

1. Schematic diagram of microwave darkroom test.

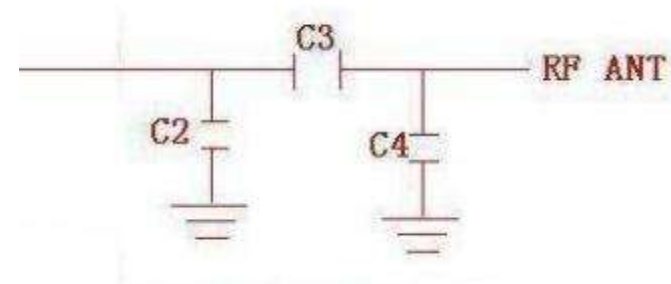


2. Project Description

This report summarizes the electrical performance test results of the H 3 - B D project's 2.4-2.5GHz W Bluetooth antenna, including the antenna's S11 parameter, gain, efficiency, and 2D directional pattern

3. Antenna structure dimension diagram and precautions for mass production assembly.

4. Matching Instructions (N/A)

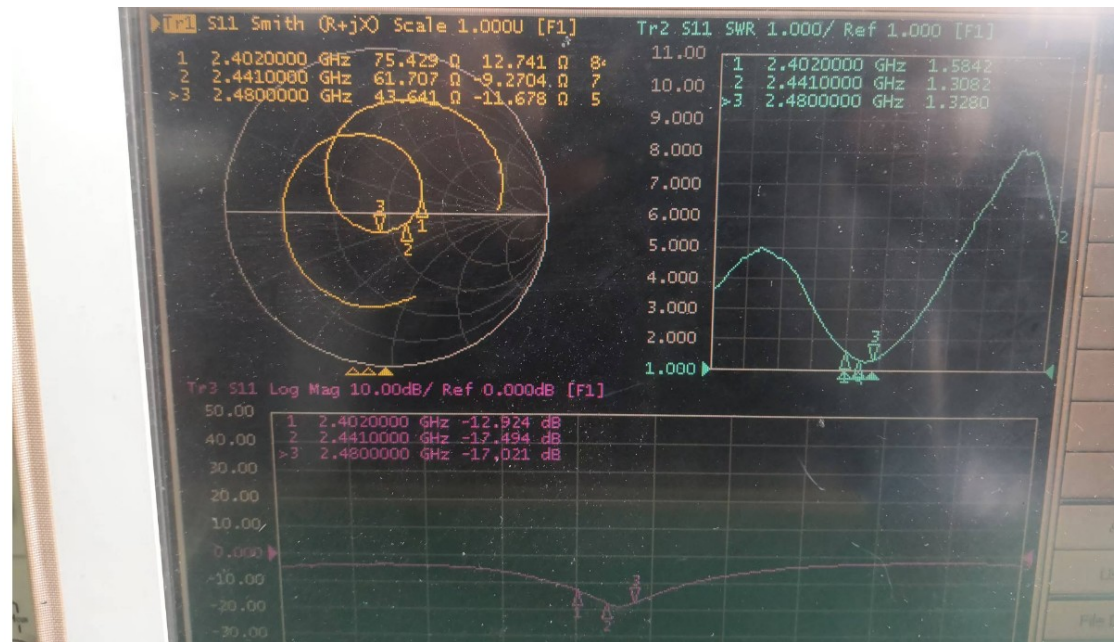


5. Passive Antenna Test Data:

5.1 Antenna network analyzer test

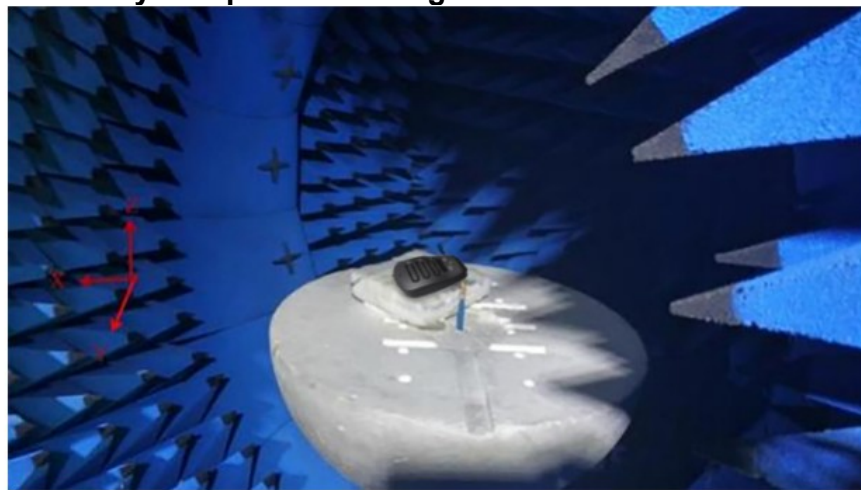


5.2 S11 Parameter data:



5.3 Antenna Anechoic Chamber Test

5.3.1 Physical placement diagram

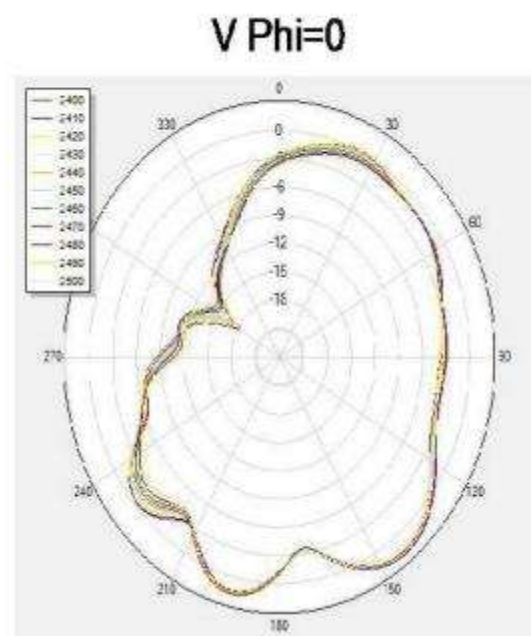


5.3.2 Gain and Efficiency

| 频率 Frequency/MHz | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|
| 增益 Gain/dBi | 2.54 | 2.49 | 2.29 | 2.24 | 2.11 | 2.17 | 2.09 | 2.05 | 1.79 | 1.82 | 1.45 |
| 效率 efficiency/% | 51% | 52% | 52% | 52% | 52% | 53% | 51% | 50% | 51% | 50% | 51% |

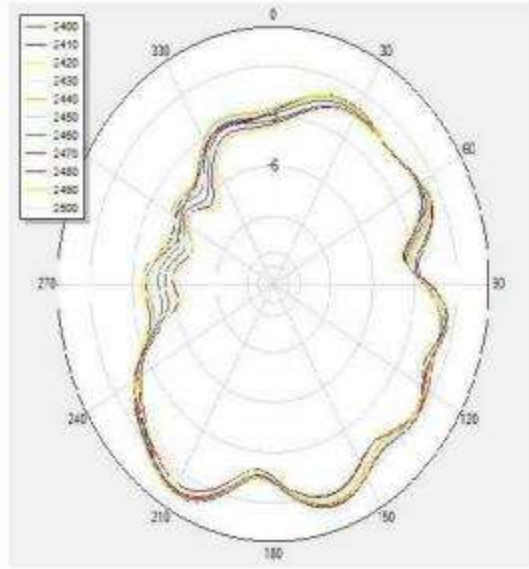
5.3.3 Directional diagram (2.4GHz)

(1) X-Z:



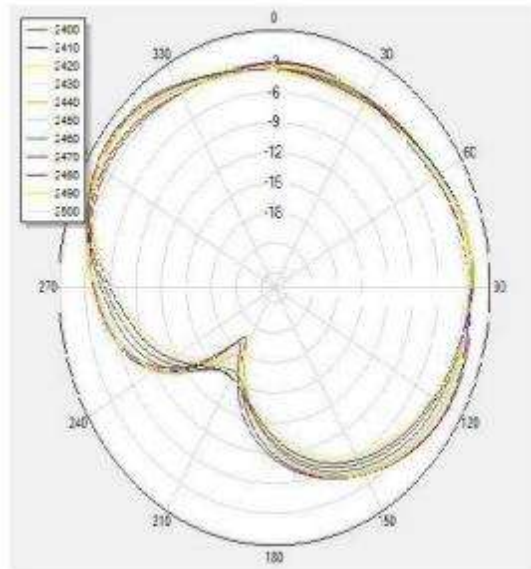
(2) Y-Z

V Phi=90

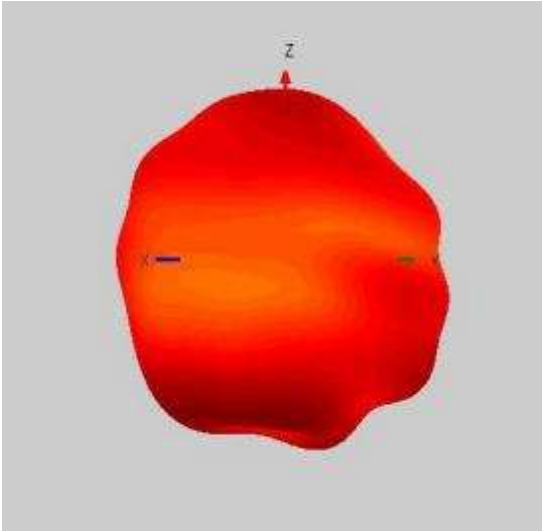


(3) X-Z

H Theta=90



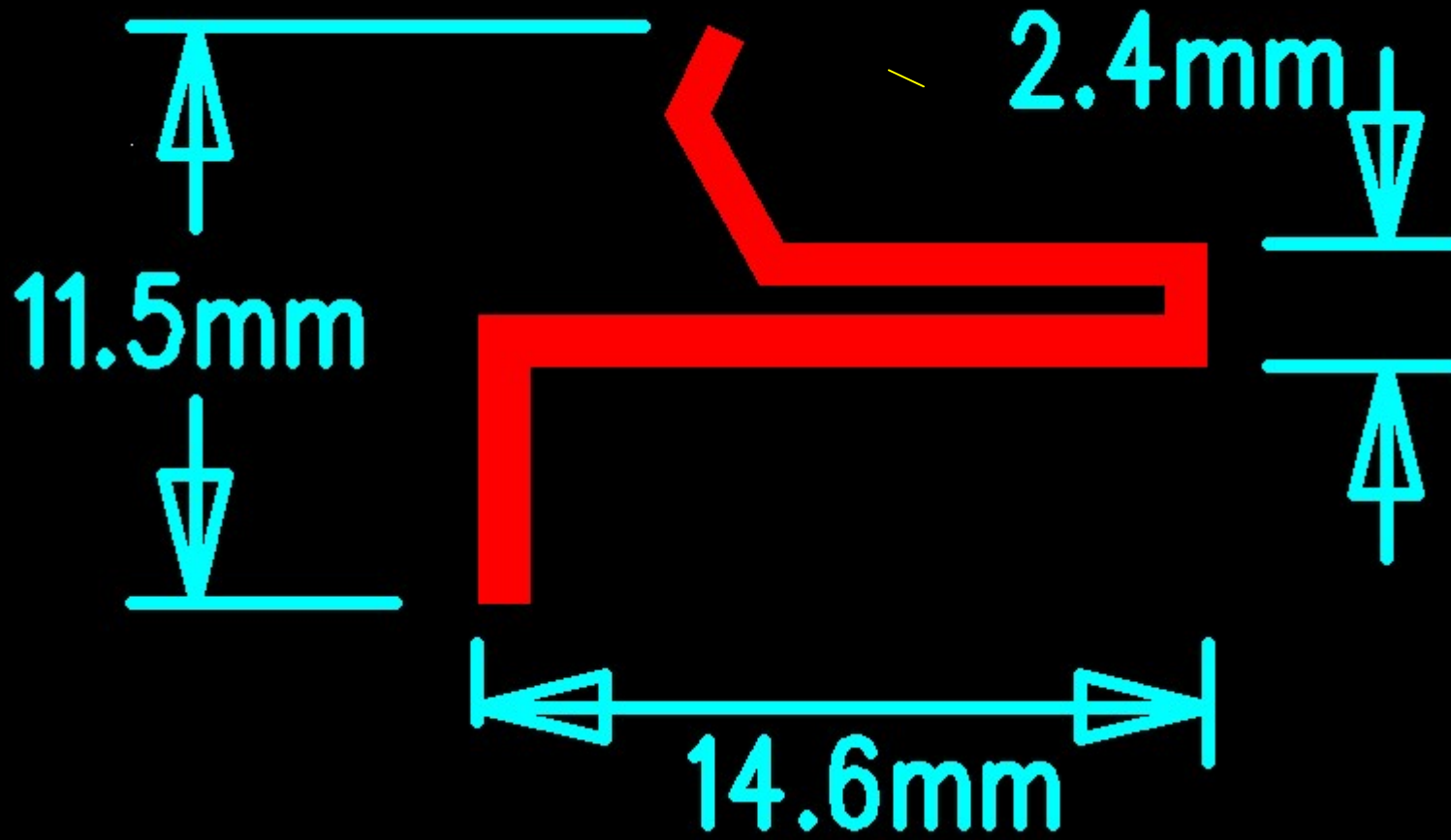
2.45GHz 3D Directional diagram:



6. Project Summary:

In summary, this is the complete passive testing of the H3-BD. Due to the good clearance around the antenna and only one button, the antenna effect is quite ideal. As can be seen from the above test data, the VSWR and return loss are good, the directional pattern is relatively balanced, the efficiency is high, and the gain is excellent. It belongs to an excellent level.

Unit: 



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|---|---|---|---|---|---|---|---|--|--|
| | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |