

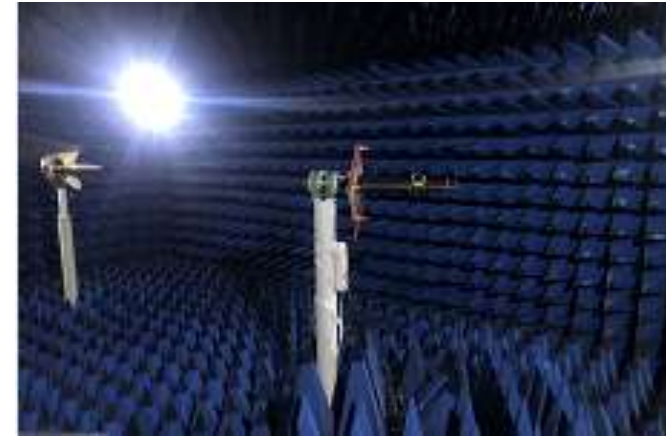


深圳市昱晟通讯设备有限公司
Yusheng Communications-equipment Co.,LTD

CG1 Antenna Specification

Project development environment

We are moving from the Internet era to the intelligent era, and the country is building a digital society and smart cities. In the next 5 to 10 years, both the consumer electronics market and the Internet of Things market hold huge potential for development. The field of wireless communication is highly diversified. In the future, Yusheng, relying on the customer platform advantages of its antenna main business and its own comprehensive strength, will strive to provide customers with professional-level product solutions that are competitive in the market.



Yusheng Communication's products almost cover all antenna applications for wireless terminal devices, including automotive antennas, high-precision measurement and mapping antennas, ground and satellite data navigation for unmanned aerial vehicles, high-precision positioning antennas, wireless transmission for medical equipment, consumer antennas (mobile phone antennas, PAD antennas, laptop antennas), base station/indoor distributed antennas Smart wearable antennas (smartwatches, TWS headphones), security home antennas, and various smart device antennas for wireless data transmission and wireless control, etc.

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Project Commissioning Introduction

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Outline of the report version

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Antenna passive efficiency

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Antenna active data

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Environmental treatment

5

Match changes

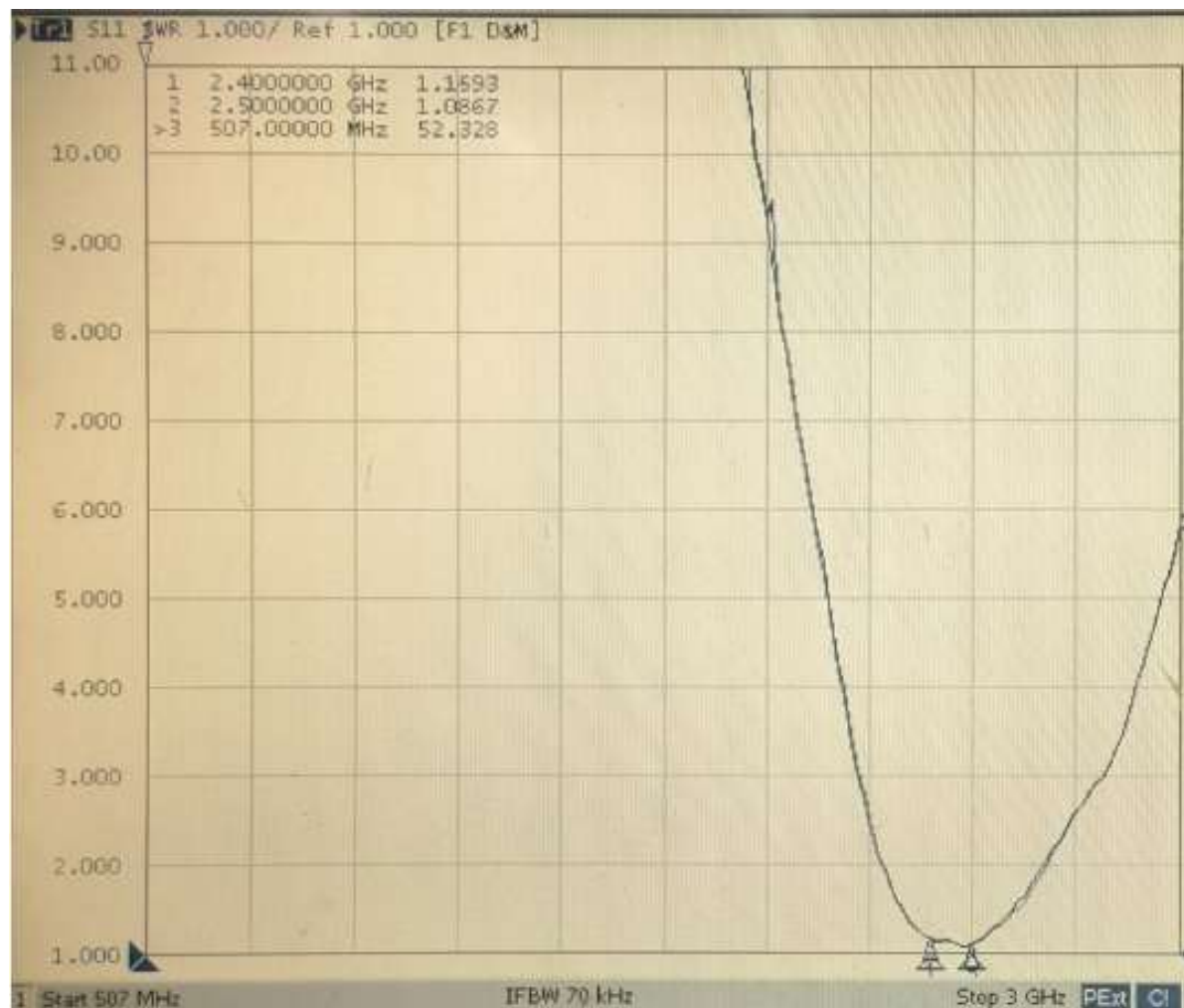
Project Commissioning Introduction

Machine type	Watch		
Frequency band and antenna material	BT	Frequency band	Material quality
		2. 4G-2. 5G	On-board antenna
Performance requirements	Execute as per the customer's requirements		

Outline of the report version

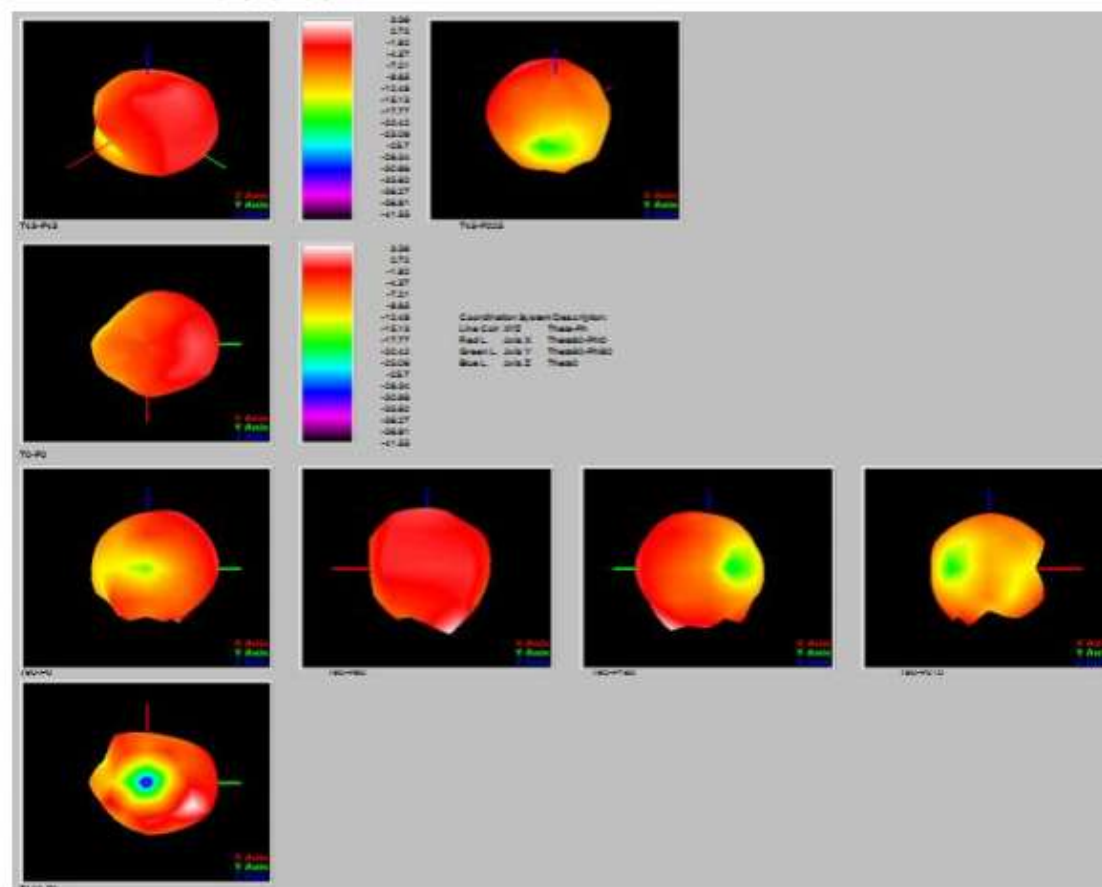
Report version	Report time	The problems solved in this antenna development
V0.1	2025-4-17	Preliminary Antenna debugging report
V0.2	2025-4-22	Antenna Optimization Report
V0.3	2025-4-28	Antenna optimization data and active data
V0.4	2025-7-7	Antenna Optimization Report

Passive parameters of Bluetooth antenna



Passive parameters of Bluetooth antenna

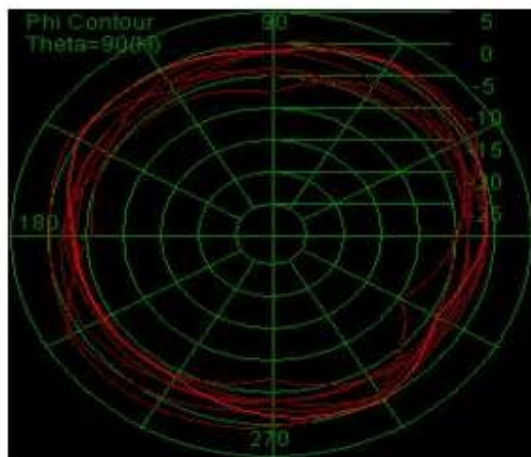
2. 4GHz方向图



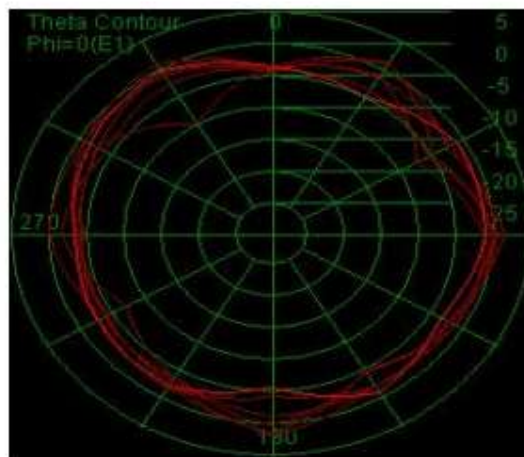
Passive parameters of Bluetooth antenna

2. 4GHz方向图

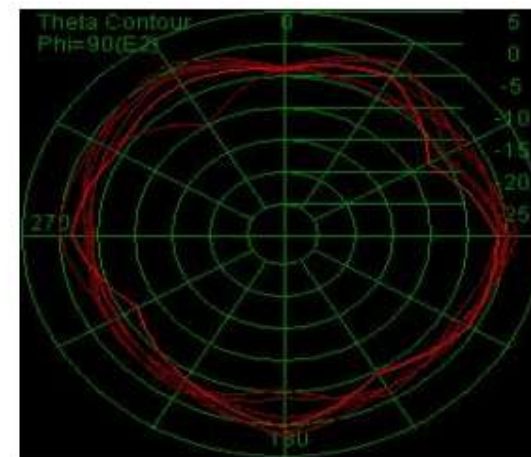
水平面
XY轴



垂直面
XZ轴



垂直面
YZ轴



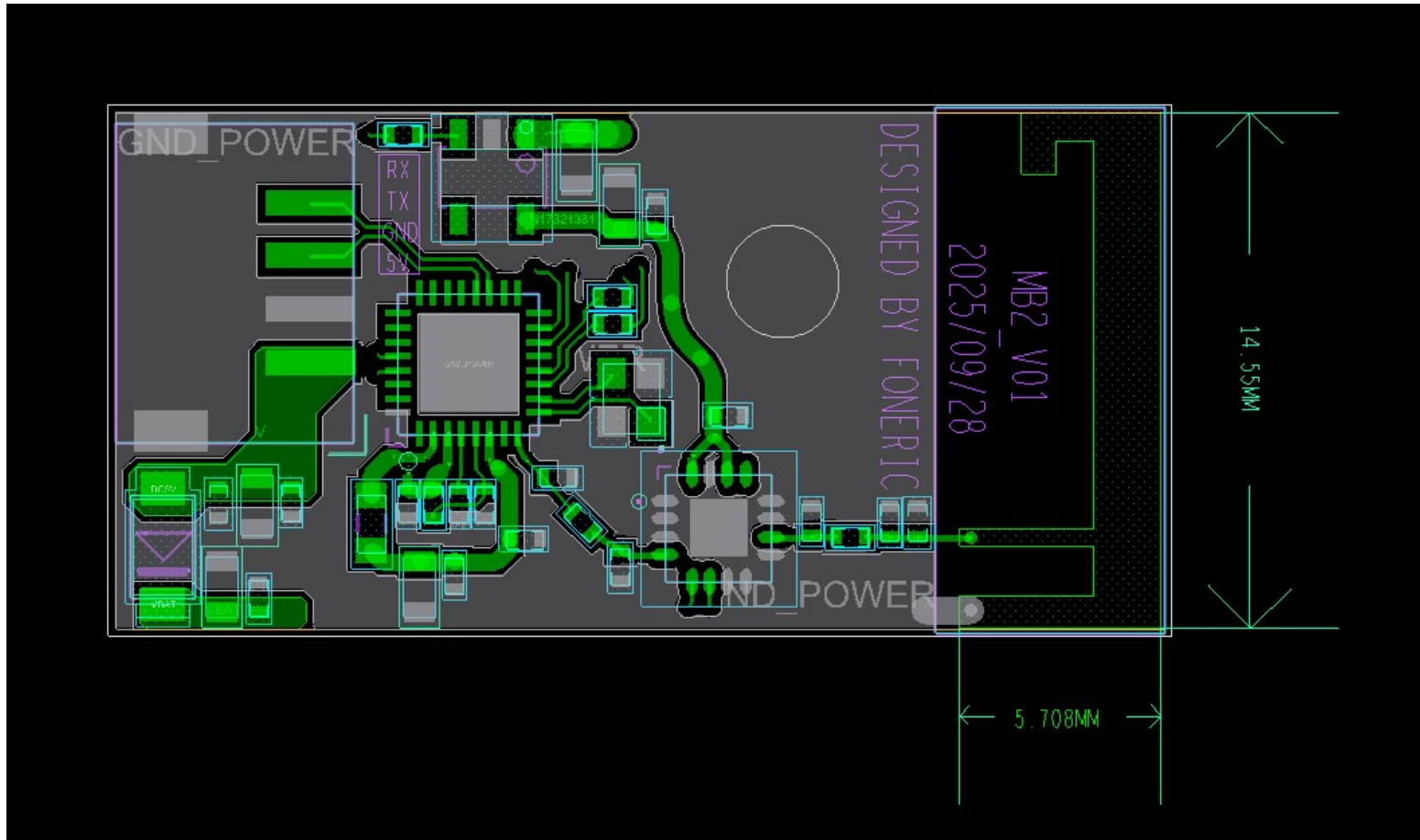
Antenna efficiency

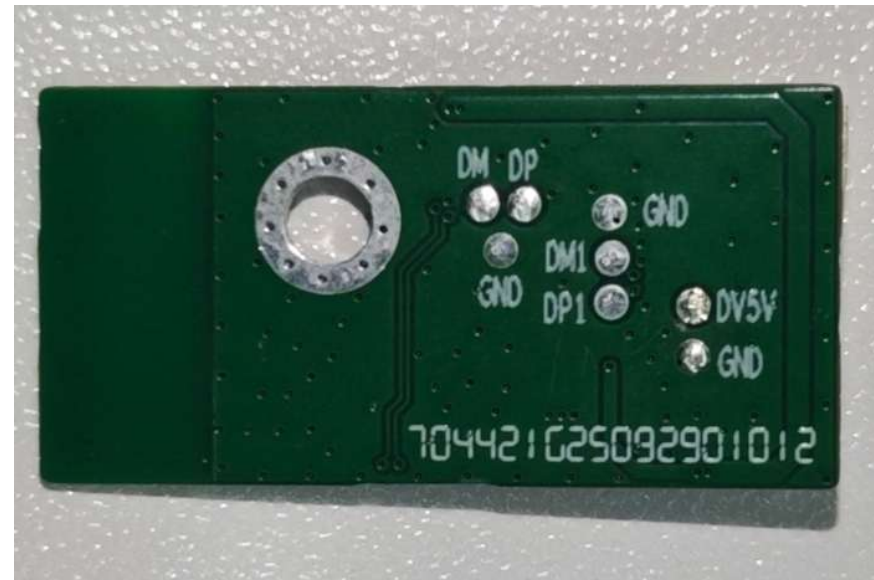
Test Point ID	1	2	3	4	5	6	7	8	9	10	11
Freq. (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	0.67	0.84	1.27	1.52	1.64	1.77	1.61	1.47	1.28	1.33	1.17
Efficiency (%)	41.9%	43.1%	43.7%	44.8%	44.5%	44.1%	44.6%	43.8%	42.3%	41.9%	40.6%

Antenna active data

Channel No.	Free space test data/L	
	TRP (dBm)	TIS (dBm)
0	15.8	-87.6
39	16.6	-88.7
78	16.2	-88.4

Antenna size





Thank you!



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