

Shenzhen QiBing Technology Co.,Ltd

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Antenna Specification for Approval

NO. QBAC20250521001

Customer Name: JingHua Precision Instrument

Product Name: WIFI Antenna

Product description: FPC, D=1.13mm Black Cable Type, L=75mm, IPEX1

Part NO.: GSJV01.75B.1

Customer NO.:

Version number: V1.0

Issued Date: 2025-5-21

QIBING	
R&D Dept	
Business Dept	
Approved By	

CUSTOMER	
R&D Dept	
Business Dept	
Approved By	

● Specification Summary

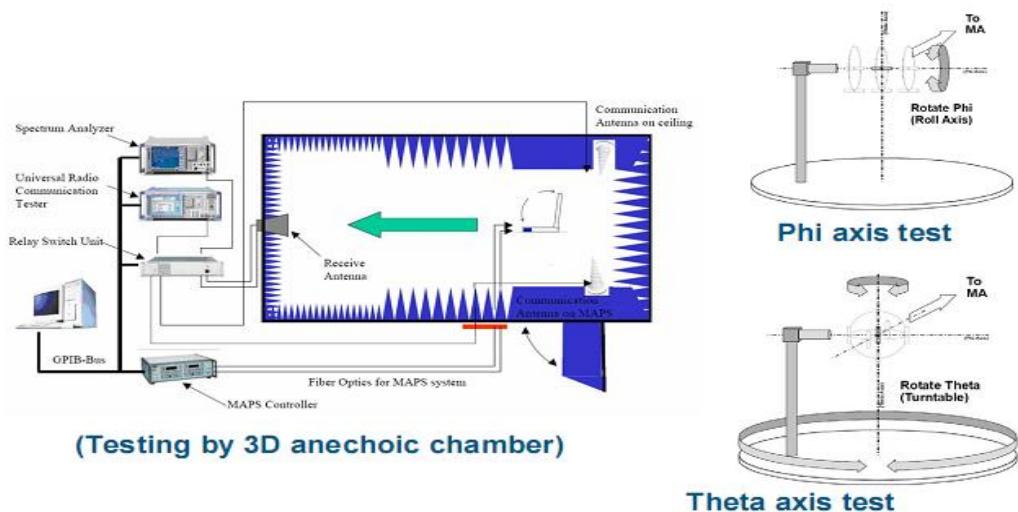
A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
LogMag	<-5.0
Efficiency	>30%
Peak Gain	2dbi
Impedance	50 Ω
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	FPC/CU
Cable Type	1.13mm Black
Connector Type	IPEX I
Dimension	At Attachment
Silk-print	Black Bottom-White Font
C. Environmental Characteristic	
Storage Temperature	- 30 ° C ~ + 85 ° C
Heat-durability	280±5° C, 10sec.
Weld Temperature	320±5°C 2-3sec.

● Test Equipment & Conditions

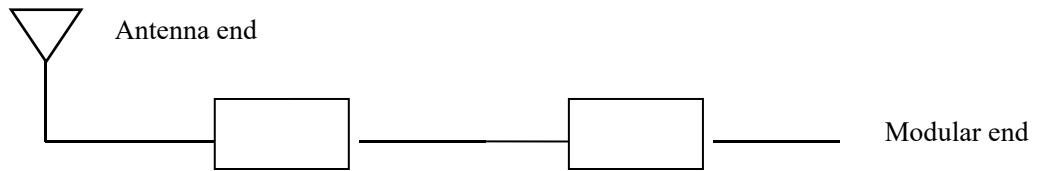
1. Network Analyzers :

1	Agilent E5071B / KEYSIGHT E5071C: Frequency 100KHz~8.5GHz, Test VSWR/Return Loss/Smith
2	CMW500: Test:BT /WIFI(802.11b/g/n/a/ac/ax, 2.4G/5.8G) / 2G (CDMA/GSM) /3G (EVDO/WCDMA/TD) 4G LTE TRP/TIS
3	GPS-101: Test GPS EMI Conduction
4	XH ATS260 24 Sondes OTA 3D Microwave Chamber
5	XH-ACTIVE V3.0/XH-PASSIVE V2.0/XH-Data Processing V2.0 Test System

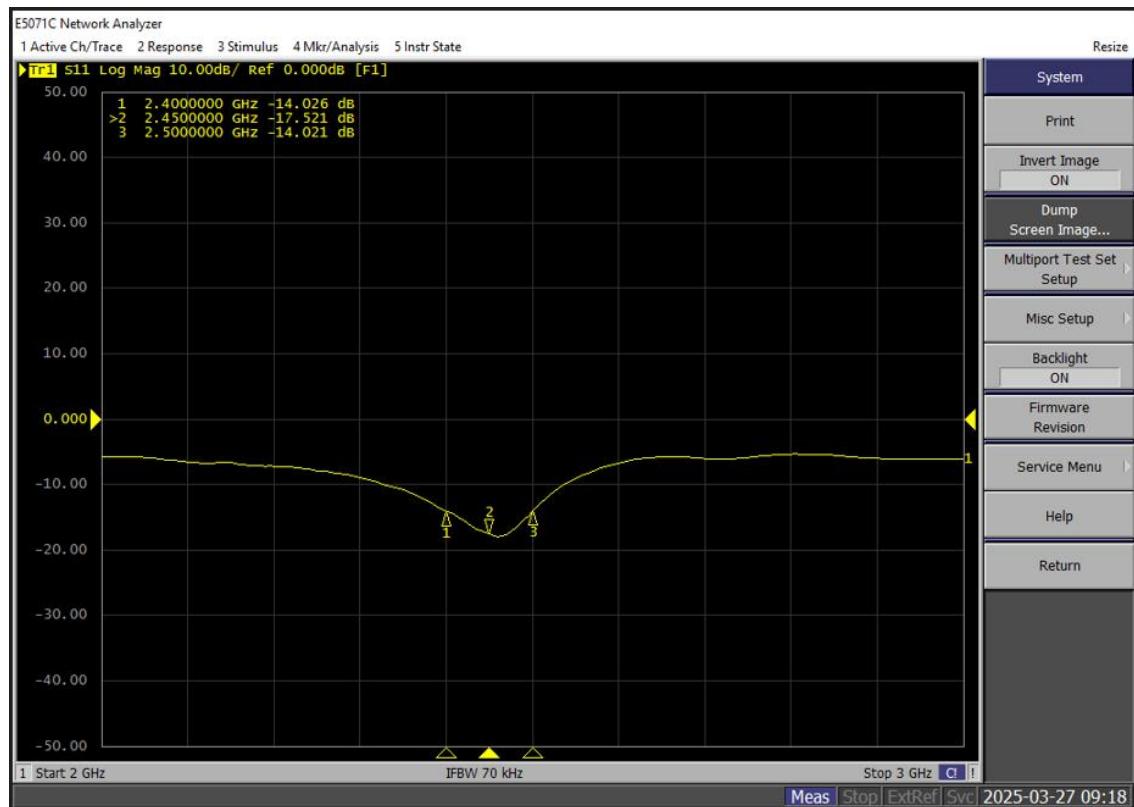
2. 3D Chamber Test System



● Matching Circuit



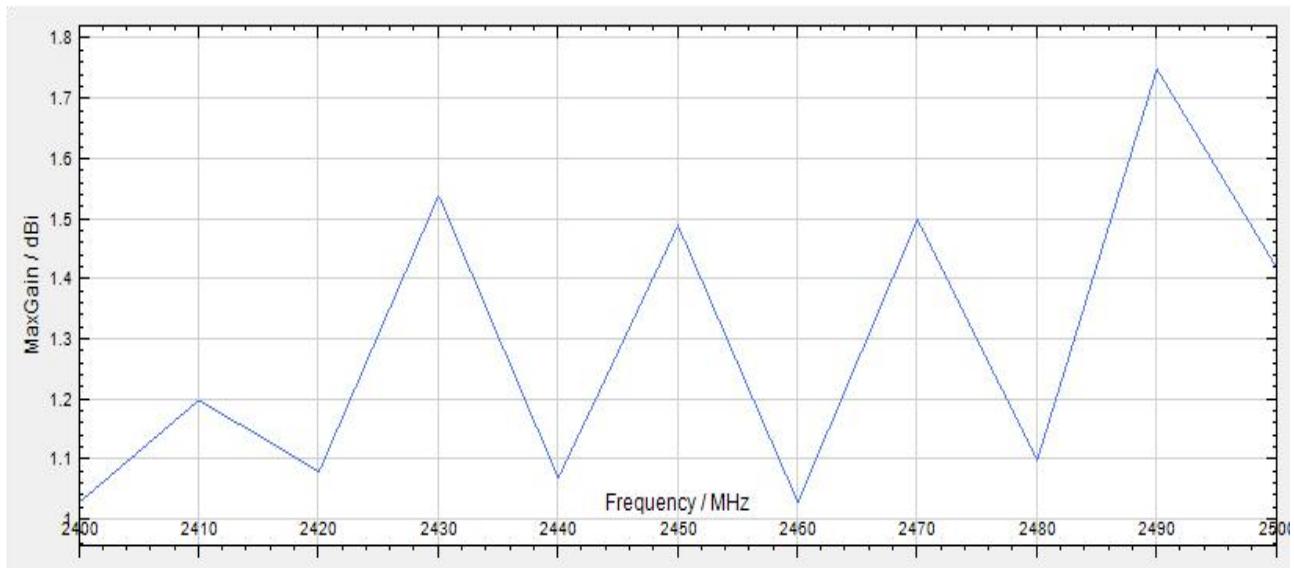
● Return Loss



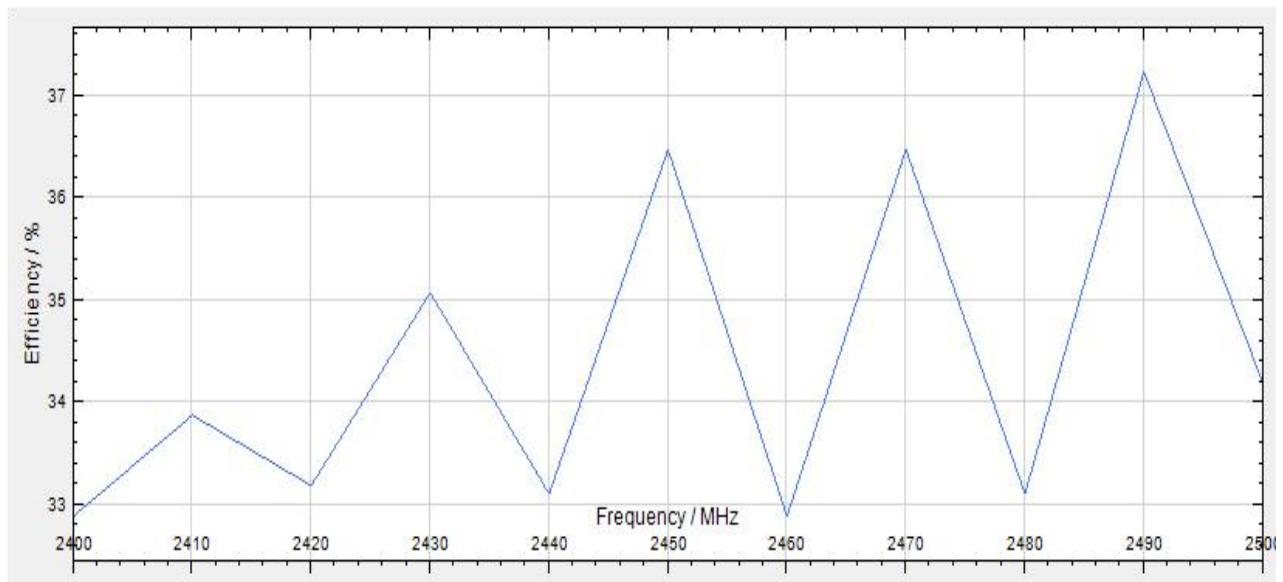
◆ 2. 4G Gain & Efficiency

Frequency/Mhz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency / %	32.89	33.88	33.19	35.08	33.11	36.48	32.89	36.48	33.11	37.24	34.2
Efficiency / dB	-4.83	-4.7	-4.79	-4.55	-4.8	-4.38	-4.83	-4.38	-4.8	-4.29	-4.66
Gain/dBi	1.03	1.2	1.08	1.54	1.07	1.49	1.03	1.5	1.1	1.75	1.42

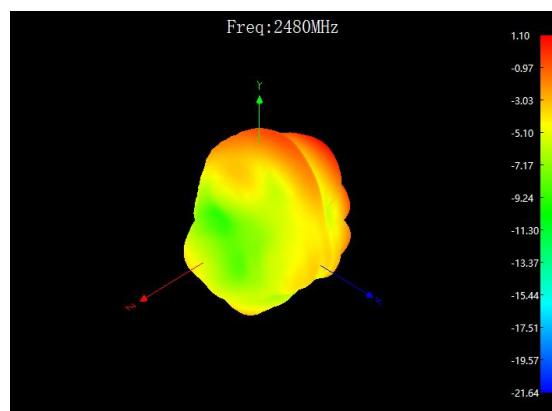
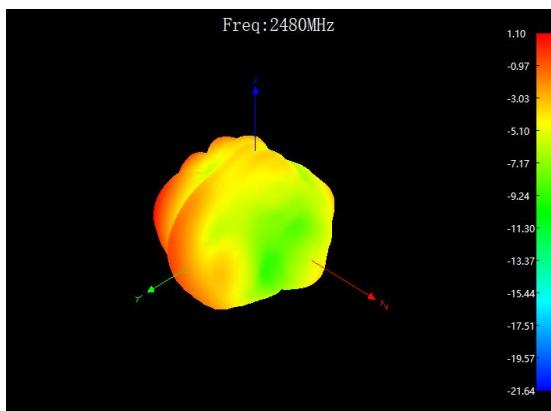
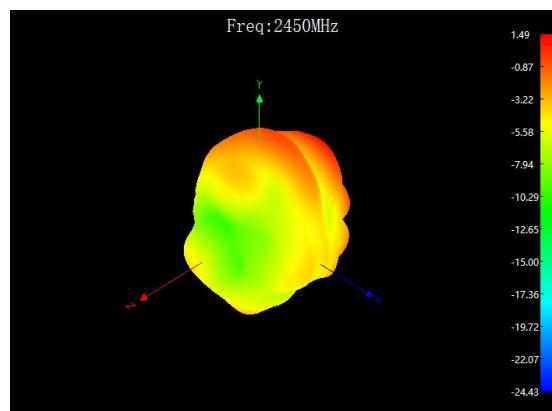
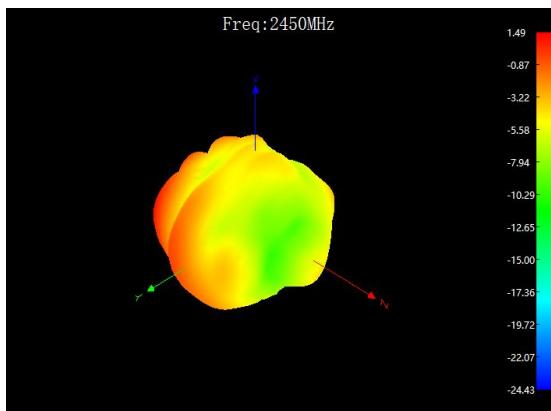
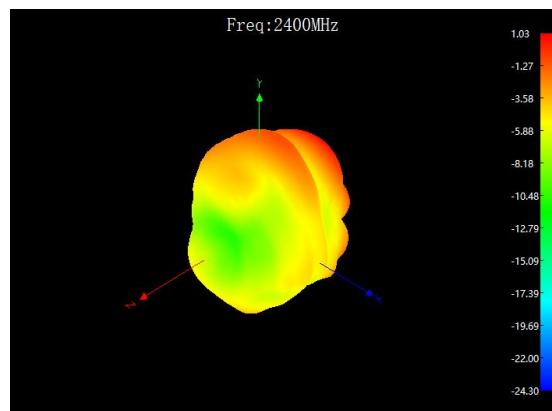
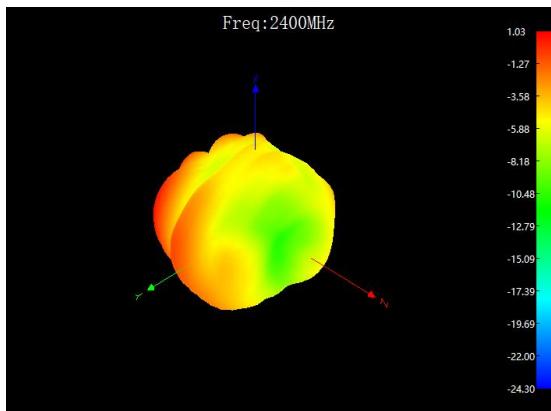
Gain:



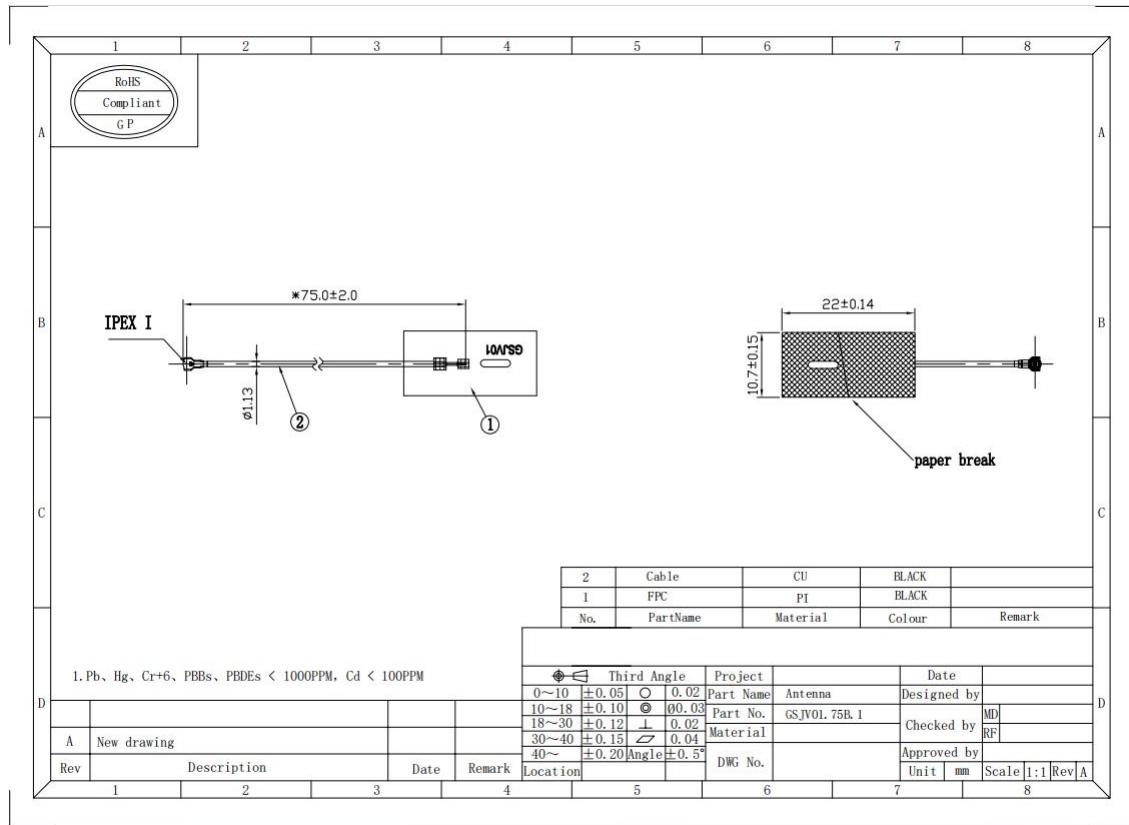
Efficiency:



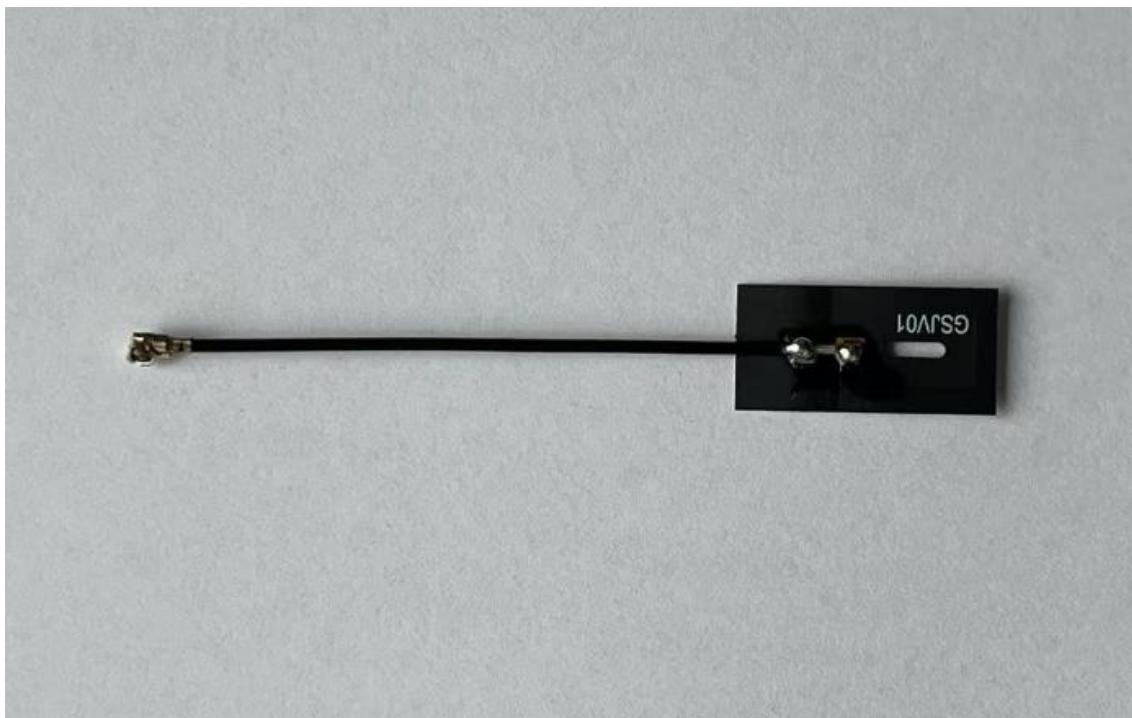
● 3D Graphic:



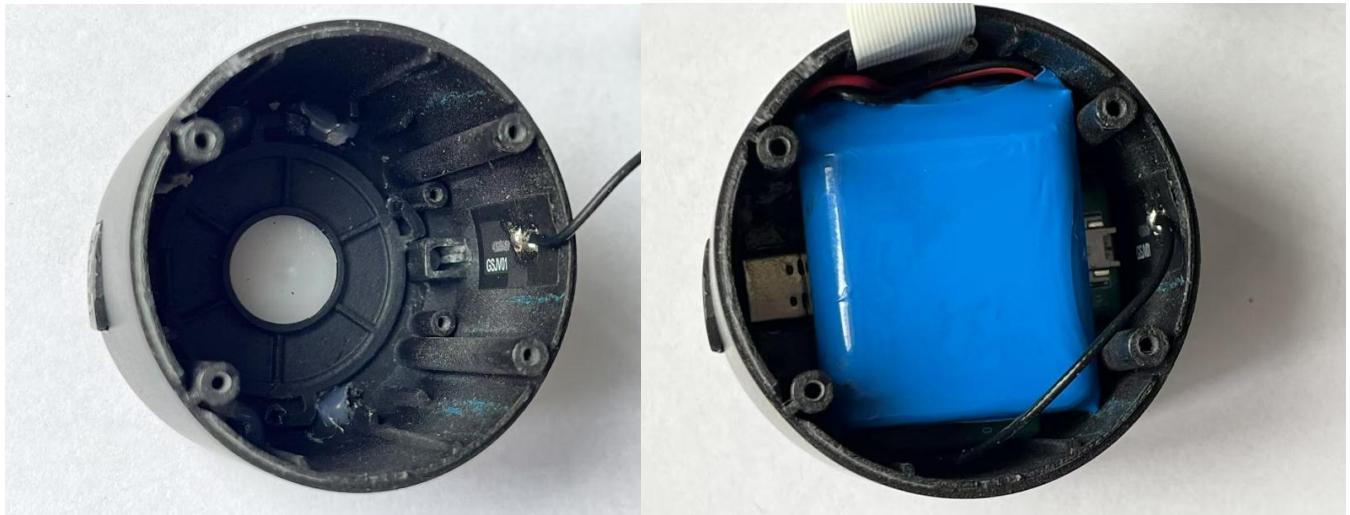
● Antenna Size:



● Antenna Picture:



- Installation Drawing:



● Reliability Test

Test Item	Test condition	Equipment	Specification	Result
1	<p>Low Temp. Storage Test</p> <p>Temperature: -30°C, Time:48hrs</p> <p>Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25°C and humidity is 65% for one hour, then step-down the temp. to -30°C in one hour, store antenna for 44 hours; step-up temp to 25°C, test antenna after 2 hours.</p>	Temp. &Humi. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
2	<p>High Temp. /High Humid Storage Test</p> <p>Temperature: 85°C Humidity: 85% RH Time:48hrs</p> <p>Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25°C and humidity is 65% for one hour, then step-up the temp. to 80°C and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25°C, test antenna after 2 hours.</p>	Temp. &Humi. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
3	<p>Salt-Spray 6 spray Test</p> <p>Placing antenna in the Salt-Spray Tester , set the test condition , Temp: $35 \pm 2^\circ\text{C}$ Humidity: 85% NaCl salt spray :$5 \pm 1\%$ PH value :$6.5 \sim 7.2$ Test time:24hours</p>	Salt-Spray Tester	<p>No color change</p> <p>No appear rusting</p>	PASS