Shenzhen QiBing Technology Co.,Ltd

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Antenna Specification for Approval

NO.QBAC20220210001

Customer Name: LangTong

Product Name: WIFI Antenna

Product descriptinon: PCB, D=1.13mm Black Cable Type, L=100mm, IPEX1

Part NO.: WF38B.C113.100B.1

Customer NO.:

Version number: V1.0

Issued Date: 2022-2-10

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	<-10
Efficiency	>50%
Peak Gain	2.37dbi
Impedance	50 Ω
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	PCB/CU
Cable Type	1.13mm Black
Connector Type	IPEX I
Dimension	At Attachment
C. Environmental Characteristic	
Storage Temperature	- 30 ℃ ~ + 85 ℃
Heat-durability	280±5℃, 10sec.
Weld Temperature	320±5℃ 2-3sec.

● Test Equipment & Conditions

1. Network Analyzers :

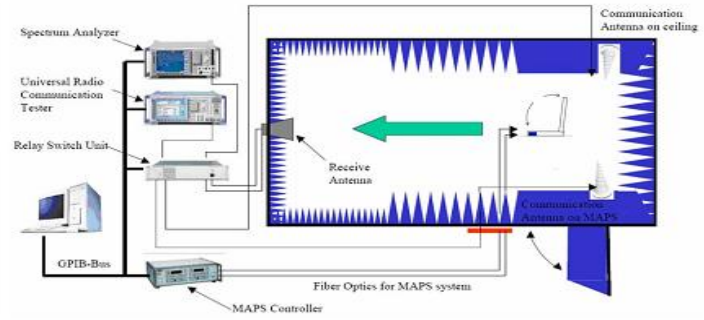
   Agilent 8753D

   5071B

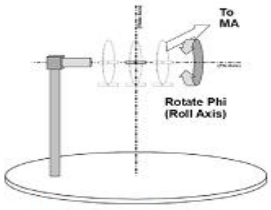
   Communications Test Set:

   Agilent E5515C CMW500

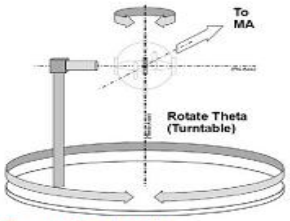
2. 3D Chamber Test System



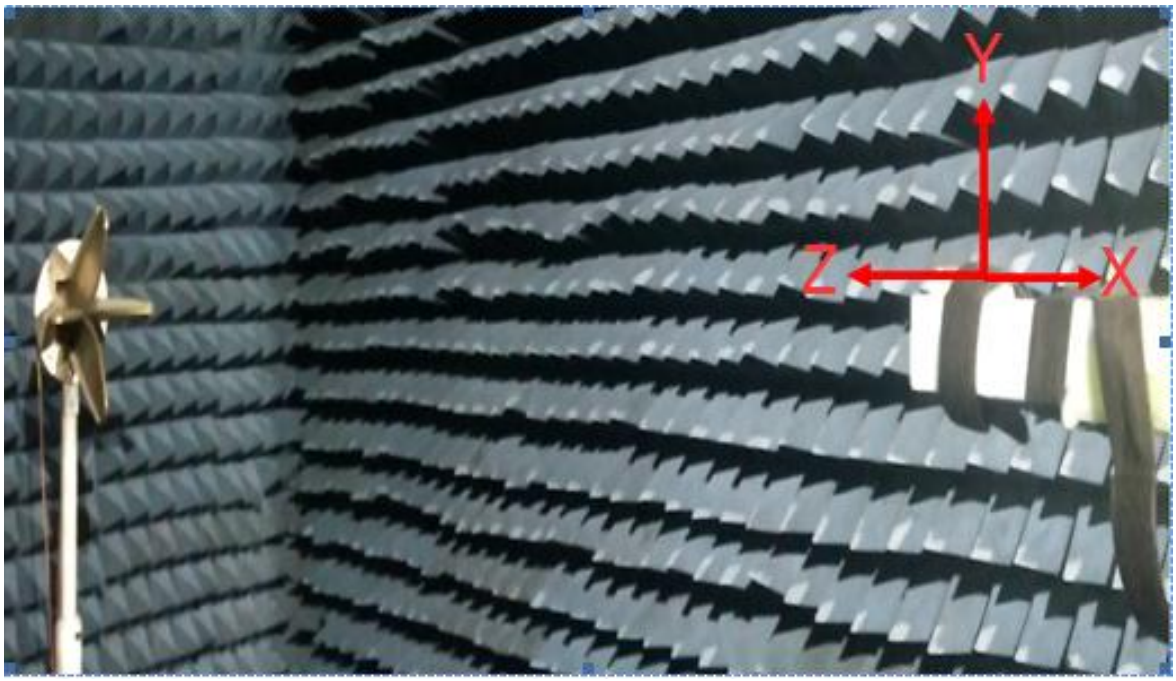
(Testing by 3D anechoic chamber)



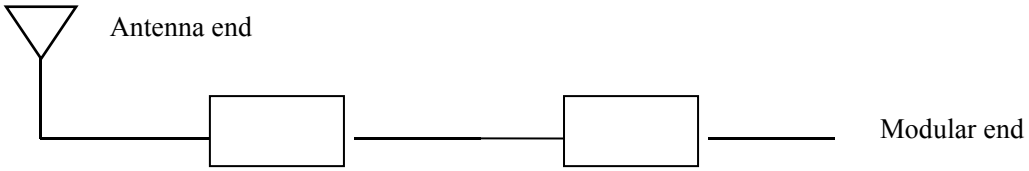
Phi axis test



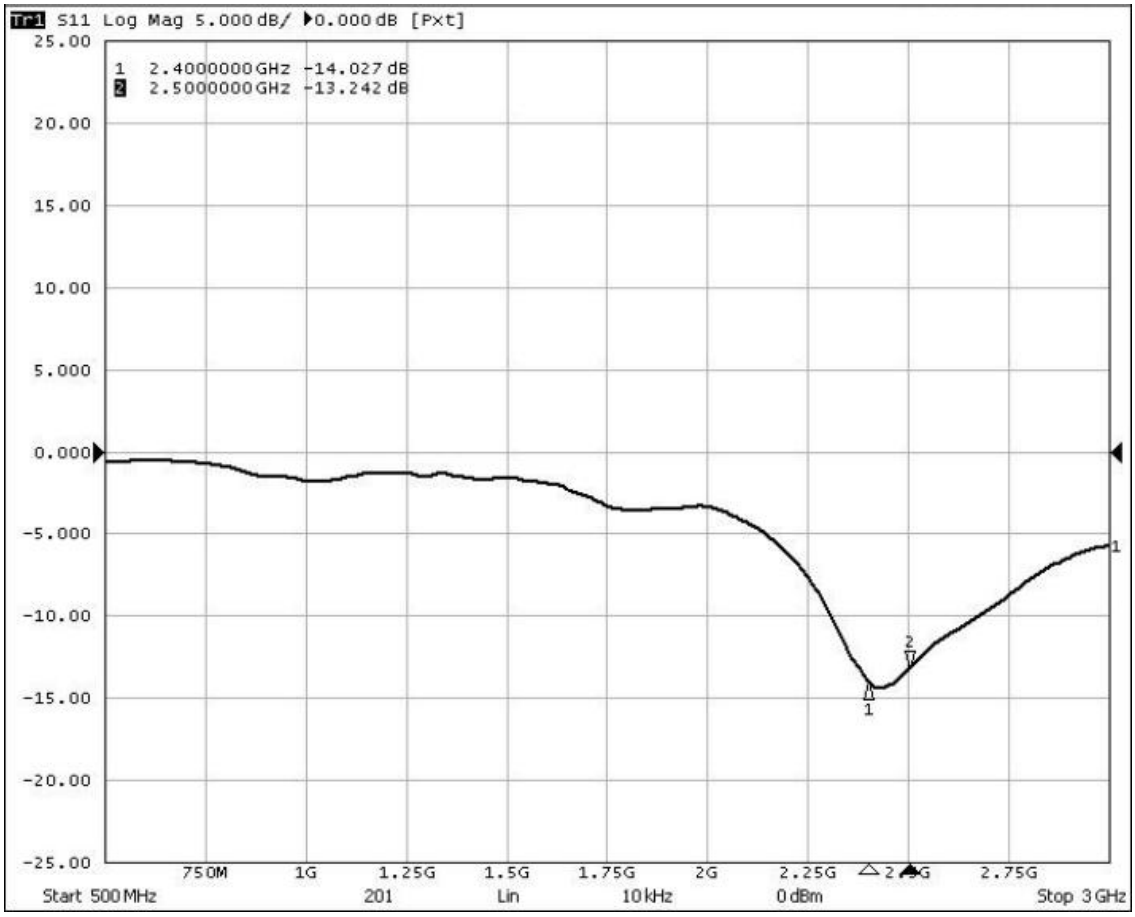
Theta axis test



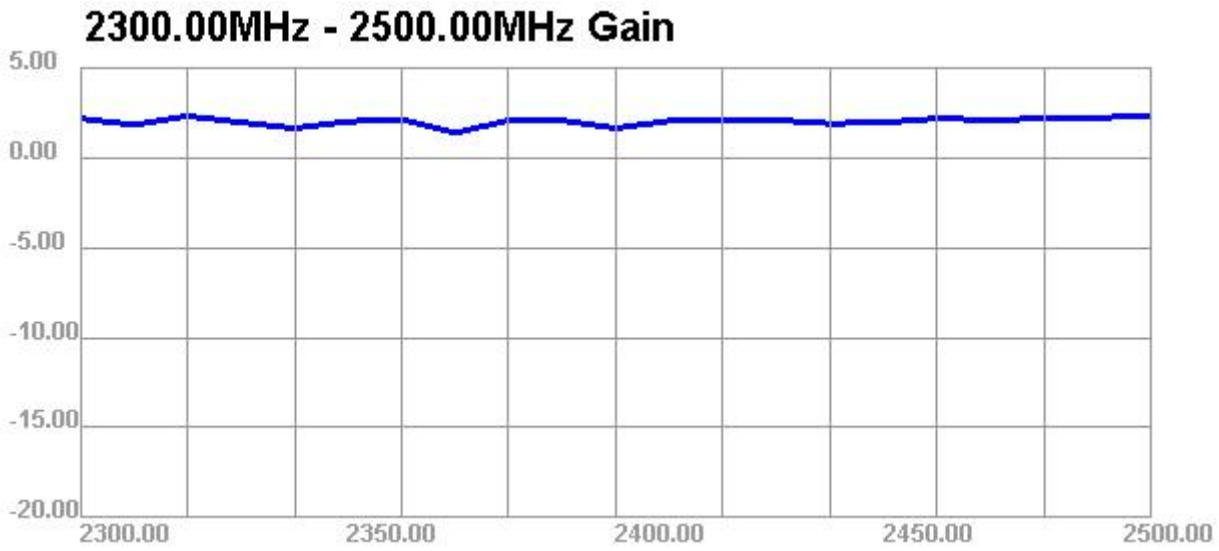
● Matching Cricuit



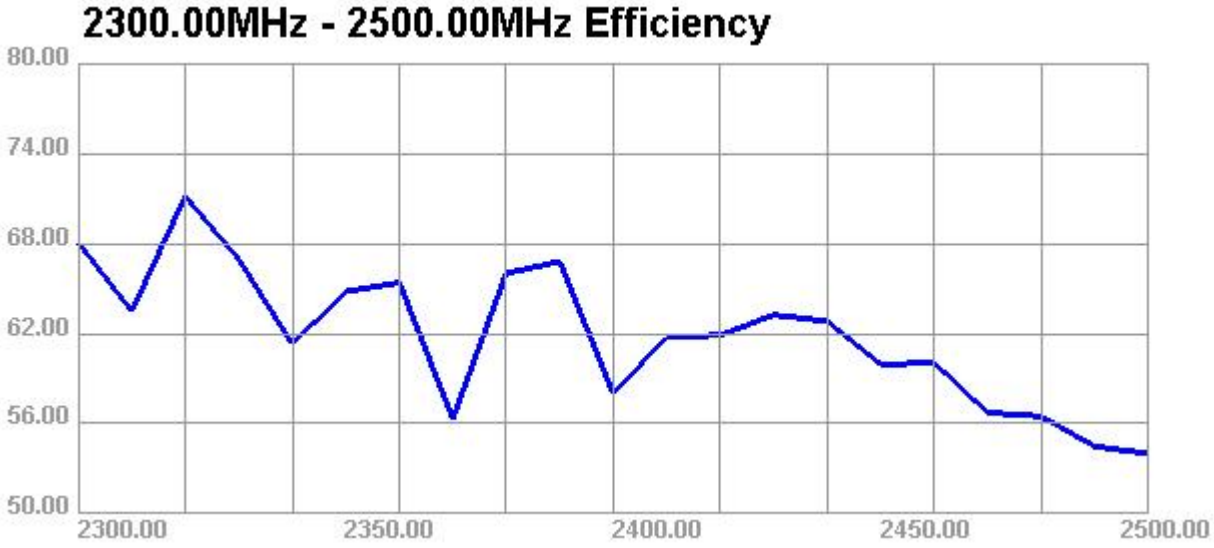
● Return Loss



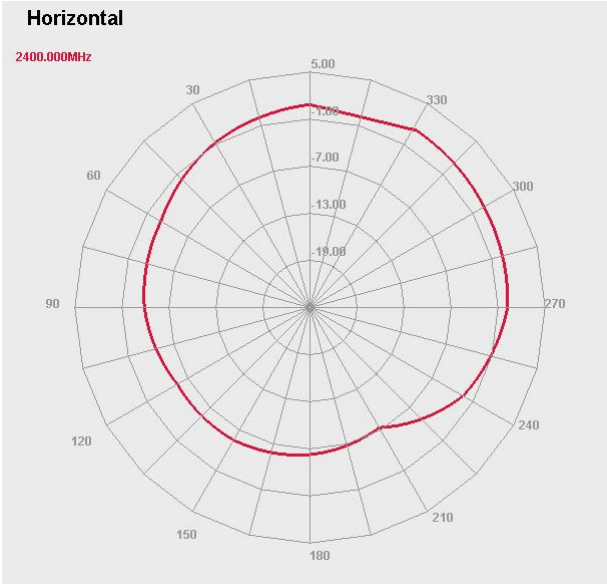
◆ 2.4G Gain

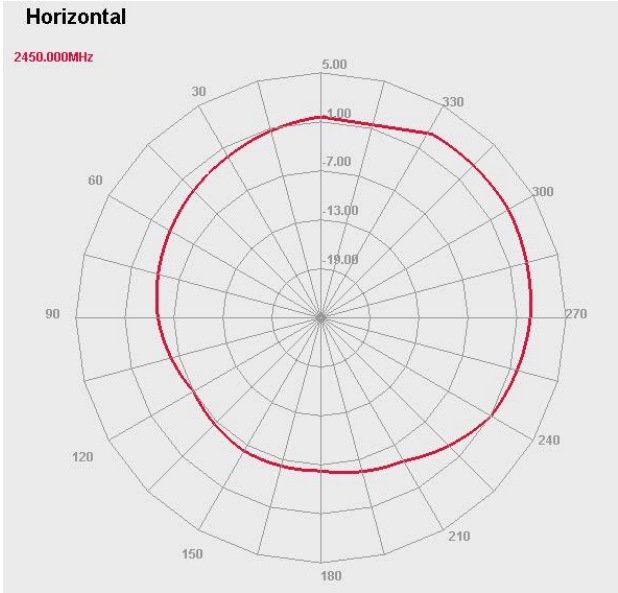


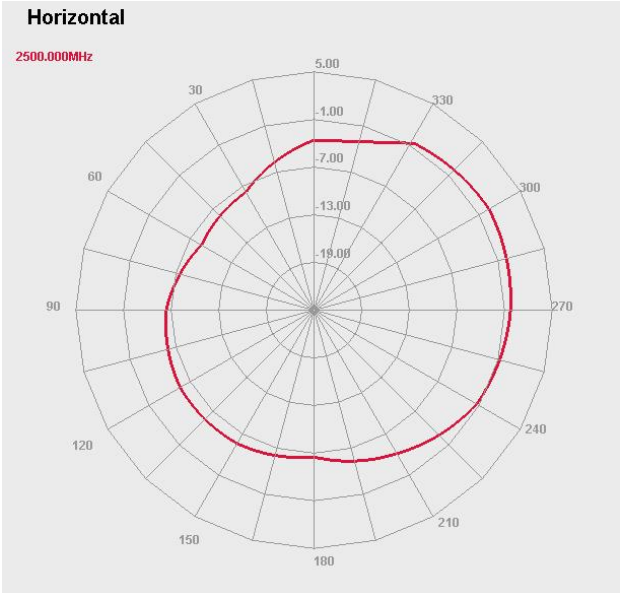
◆ 2.4G Efficiency



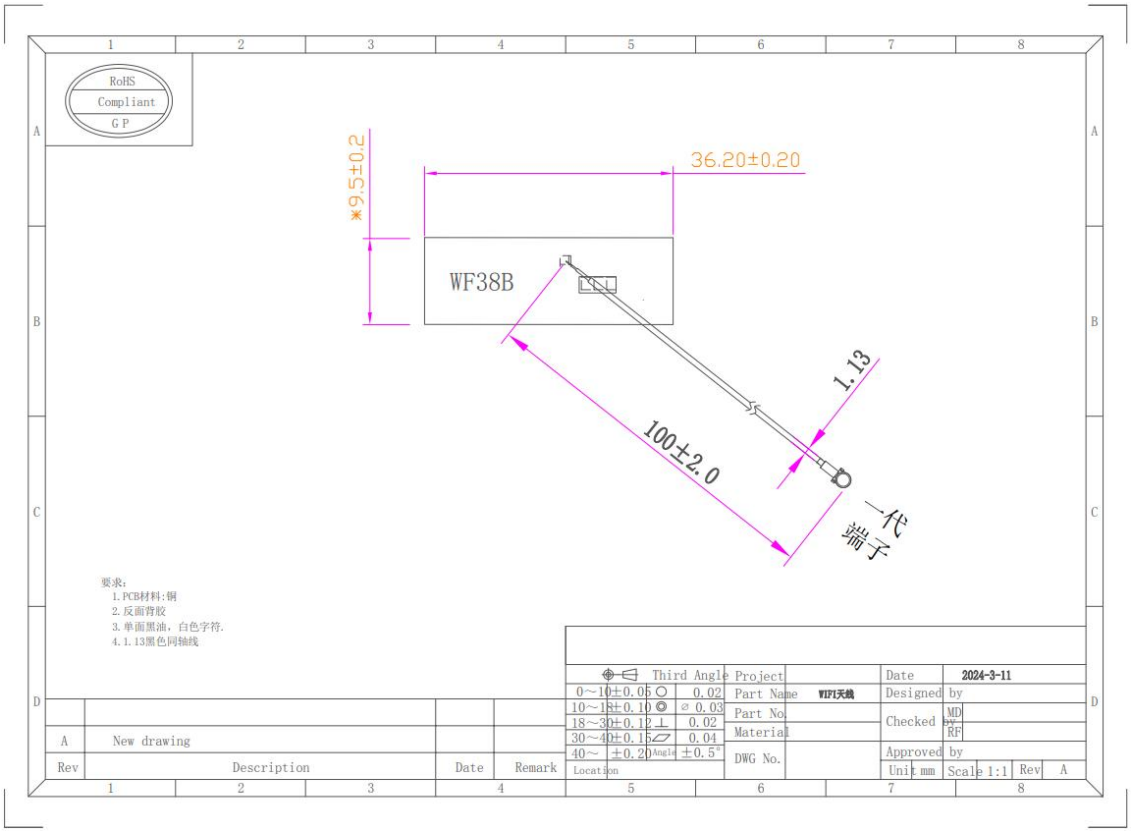
Passive Test For 2.4-2.5G											
Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain(dBi)	1.65	2.05	2.09	2.09	1.91	1.95	2.19	2.1	2.18	2.21	2.37
Effi(%)	58	61.8	61.9	63.26	62.84	59.96	60.06	56.73	56.5	54.49	54


Horizontal
2400.000MHz
5.00
-1.00
-7.00
-13.00
-19.00
30
330
60
300
90
270
120
240
150
210
180

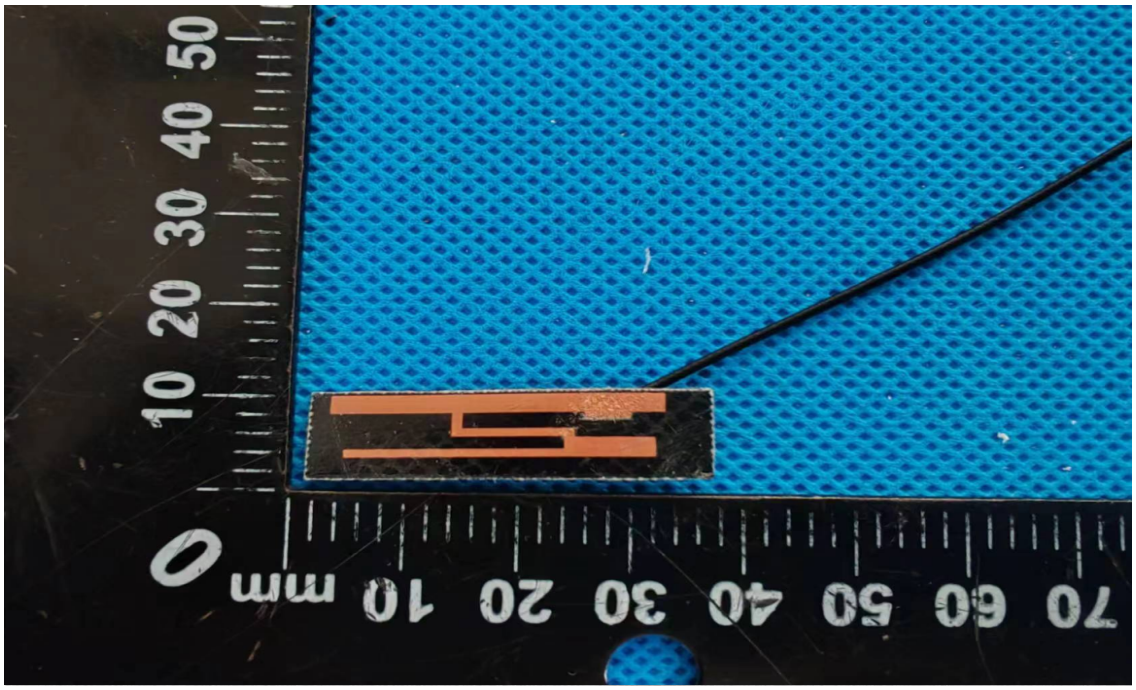

Horizontal
2450.000MHz
5.00
-1.00
-7.00
-13.00
-19.00
30
330
60
300
90
270
120
240
150
210
180


Horizontal
2500.000MHz
5.00
-1.00
-7.00
-13.00
-19.00
30
330
60
300
90
270
120
240
150
210
180

- Antenna Size:



- Antenna Picture:



● Reliability Test

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