

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: Shenzhen CANNICE Technology Co. , Ltd

Entry name: A1109-07 (L)

Product Name: BT Antenna

Part NO. : A1109. 07. L. V2

Write By: yan pei hai

Issued Date: 2023-06-29

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz~2500MHz
Return Loss	<-12
Efficiency	>30%
Peak Gain	-0.32DBi
Impedance	50 Ω
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	FPC
Cable Type	N/A
Connector Type	N/A
Dimension	At Attachment
Heat-durability	280 $\pm$ 5 $^{\circ}$ C, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 $^{\circ}$ C ~ + 80 $^{\circ}$ C
Storage Temperature	- 30 $^{\circ}$ C ~ + 85 $^{\circ}$ C

● Test Equipment & Conditions

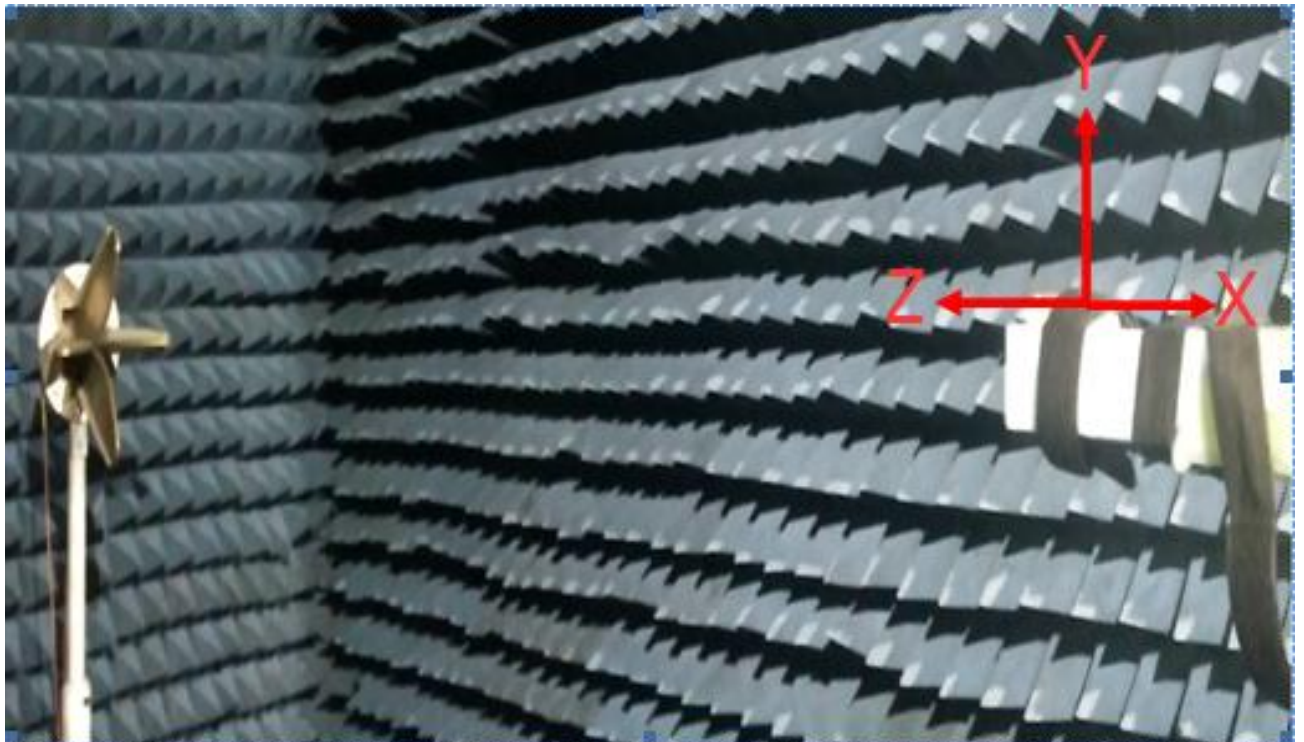
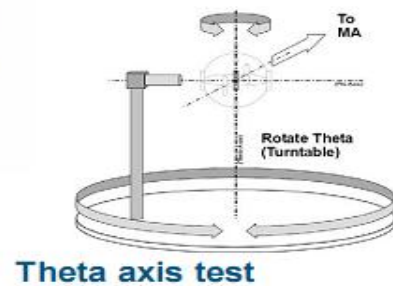
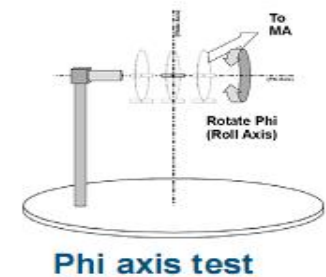
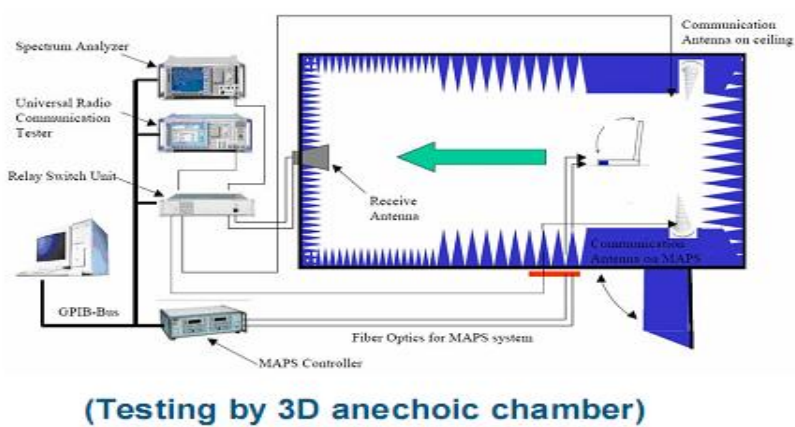
1. Network Analyzers :

Agilent 8753D 5071B

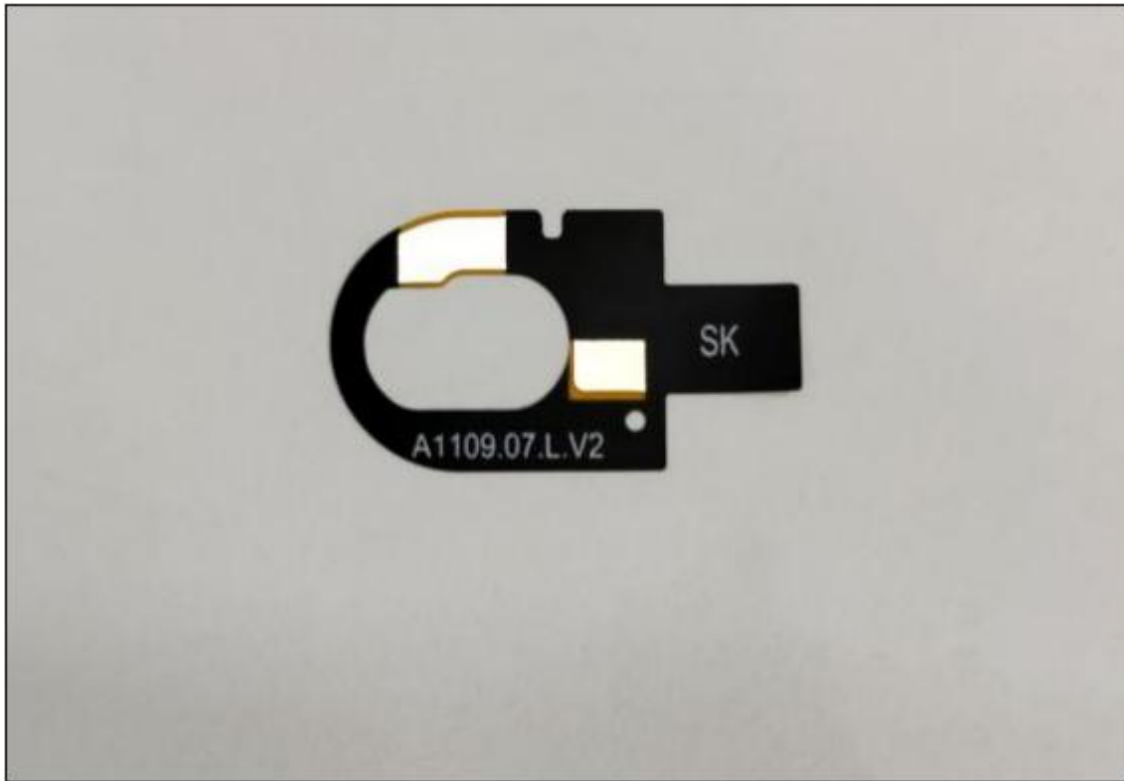
Communications Test Set:

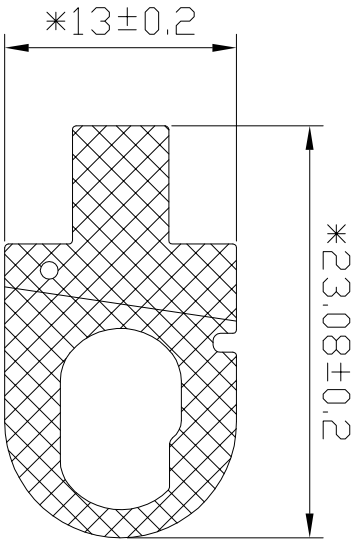
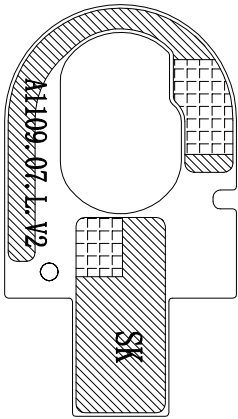
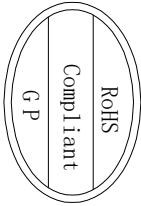
Agilent E5515C CMW500

2. 3D Chamber Test System



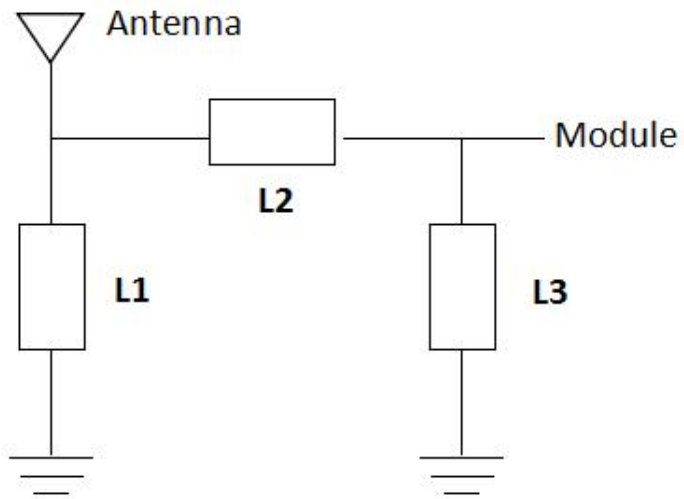
- Antenna picture





1		2		3		4		5		6		7		8	
A		B		C		D		A		B		C		D	
RoHS Compliant G P															

● Matching circuit



Electronics	Value
L1	/
L2	0 Ω
L3	/

● Return Loss (L ear)

BT VSWR+ Return loss

	Frequency(MHz)	Frequency (MHz)/ return loss(dB)		
	2400-2500		2400	2480
		VSWR	2.05	1.7
		Return loss	-9.45	-13.52

● 3D Test Report (L ear)

Test	Bluetooth TRP		
Channel	0	39	78
Frequency (MHz)	2402	2441	2480
TRP (dBm)	3.23	3.45	2.81

Test	Bluetooth TIS		
Channel	0	39	78
Frequency (MHz)	2402	2441	2480
TIS (dBm)	-89.23	-90.24	-90.12

3D Passive Test Report

Efficiency (L ear)

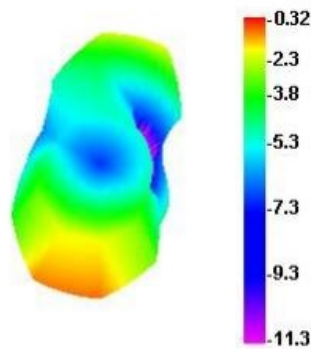
Freq	Effi
(MHz)	(%)
2400	29.85
2410	28.89
2420	30.24
2430	30.12
2440	31.25
2450	31.55
2460	31.23
2470	29.86
2480	29.63
2490	28.86
2500	28.61

Gain (L ear)

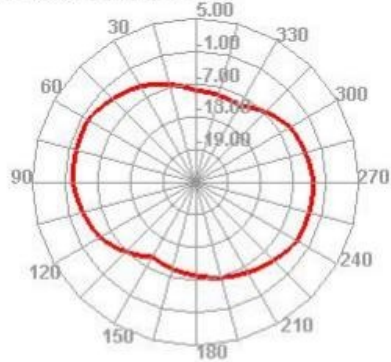
Freq	Gain
(MHz)	(dBi)
2400	-0.34
2410	-0.35
2420	-0.41
2430	-0.48
2440	-0.46
2450	-0.32
2460	-0.39
2470	-0.36
2480	-0.38
2490	-0.42
2500	-0.52

Directional pattern

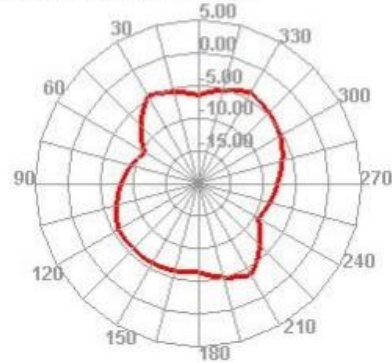
2450.000MHz



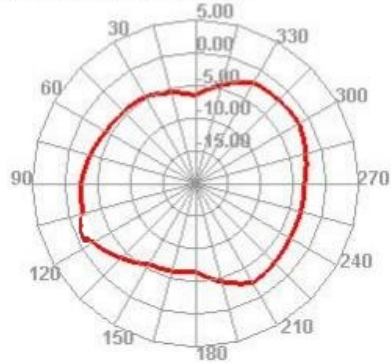
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



● Dimension Inspection

	Customer	CANNICE	Project name	A1109-07		Date	2023-06-29	
	Supplier	Skylink	Measuring tool	Caliper		Unit	mm	
NO	Dimension	Tolerance	Measured1	Measured2	Measured3	Measured4	Measured5	determine
1	23.08	±0.2	23.10	23.06	23.02	23.06	23.01	OK
2	13	±0.2	13.05	13.02	13.05	13.03	13.07	OK
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

● 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:48hours	Salt-Spray Tester	No color change No appear rusting	PASS