

# Shenzhen Yunding Communication Electronics Co., LTD

TEL: +86 0755-23073599

FAX: +86 0755-23097189

E-mail:wht0809@163.com

## APPROVAL SHEET

**Shenzhen Kangjian Intelligent Pet Co., Ltd**

CUSTOMER:

DESCRIPTION: **2.4G-2DB black outlet-L105MM-1.13 black-leakage L60MM-0pen**

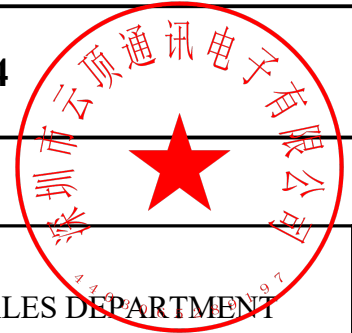
PART NO.:

CUS PART NO.:

**November 1, 2024**

D A T E:

Yunding signature



ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT
Zhang Shengbing	Cai Zhanglin	Silver Shuai

Customer signature

ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

**TEL: 0755 23073599**

**✂ Approval in duplicate, please signed by your company.**

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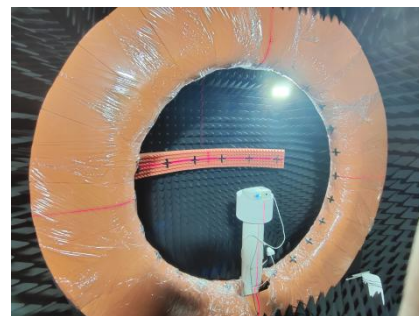
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## 1. Test items and equipment

	Test items	Equipment
1. S11-parameter	1. Return Loss 2. VSWR	network analyzer: Agilent E5071B HP 8753D
2.Active test	1. Transmitting power 2. Receiving sensitivity	1. Darkroom: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.general-purpose tester : Agilent 8960 E5515B ×2 StarPoint SP6011 Cmw500
3.Passive test	1.Gain 2.Efficiency	1. Darkroom: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. network analyzer: Agilent E5071B HP 8753D



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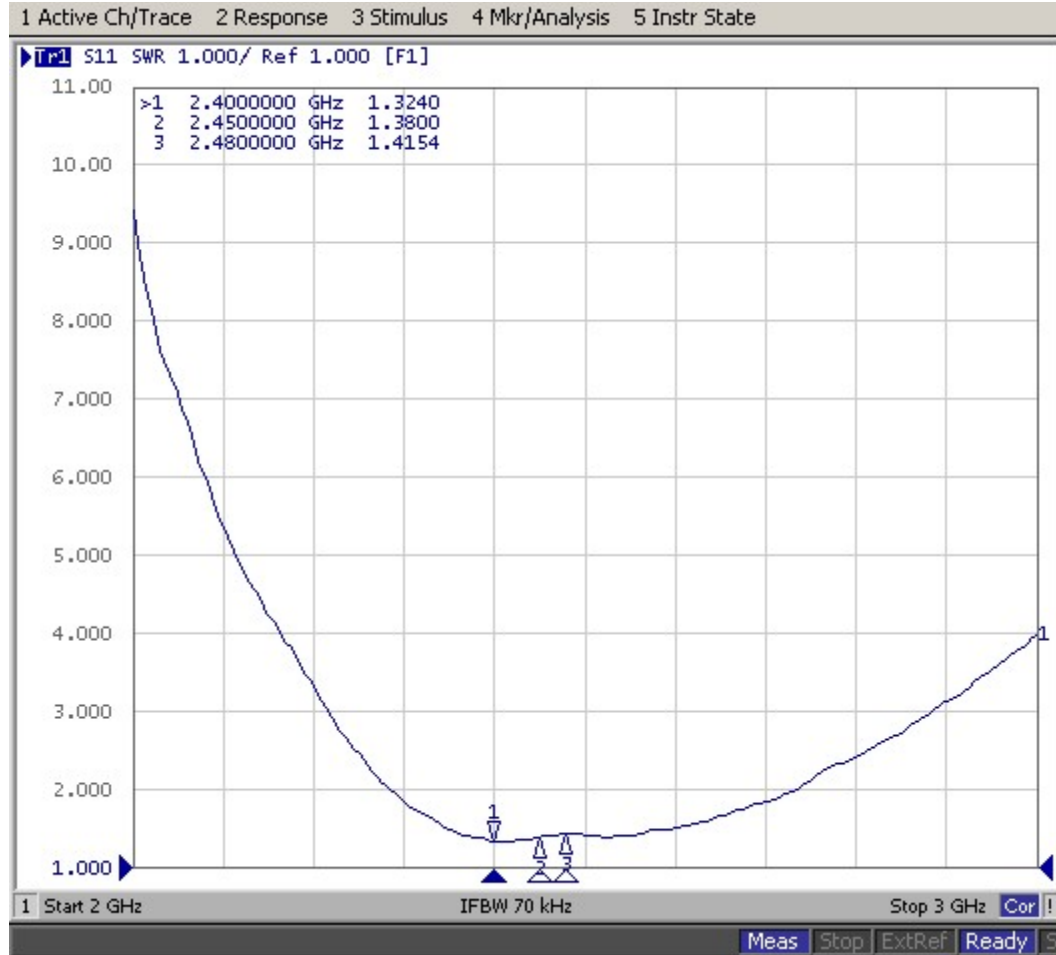
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## 2. Antenna performance

### SWR



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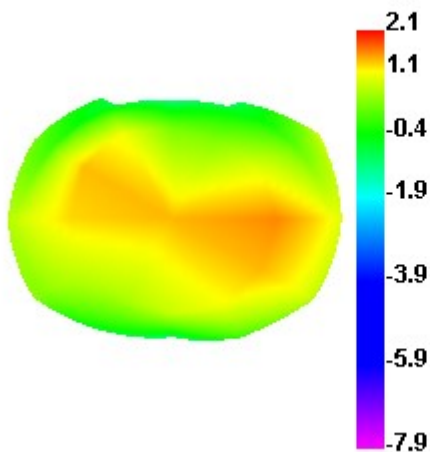
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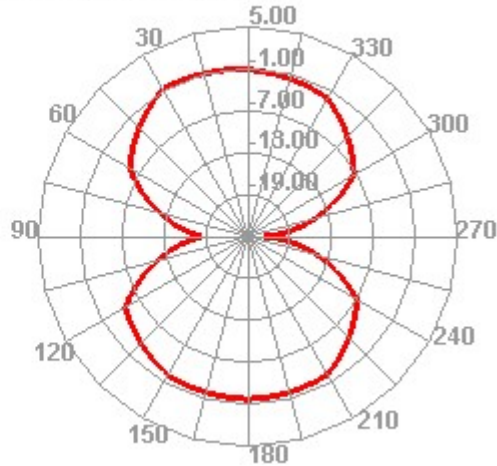
## 3. Antenna efficiency and gain

Passive Test For WIFI2.4		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	65.61	2.17
2410	62.34	1.99
2420	55.66	1.55
2430	53.63	1.32
2440	55.67	1.55
2450	58.85	2.1
2460	55.76	2.02
2470	59.31	2.45
2480	59.02	2.43
2490	61.59	2.73
2500	63.31	2.95

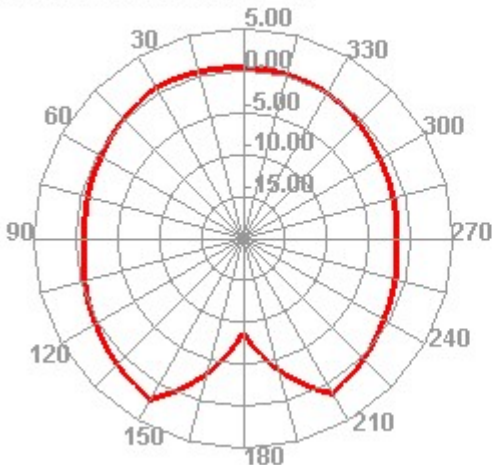
2450.000MHz



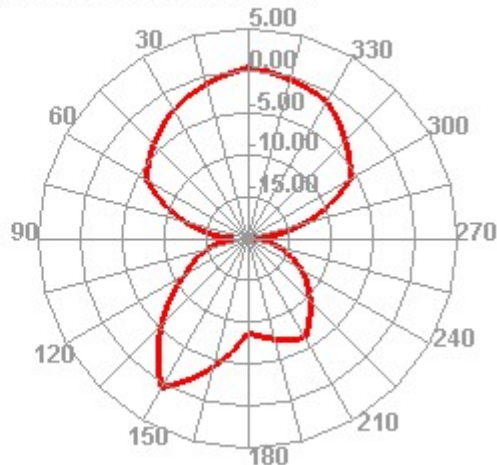
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



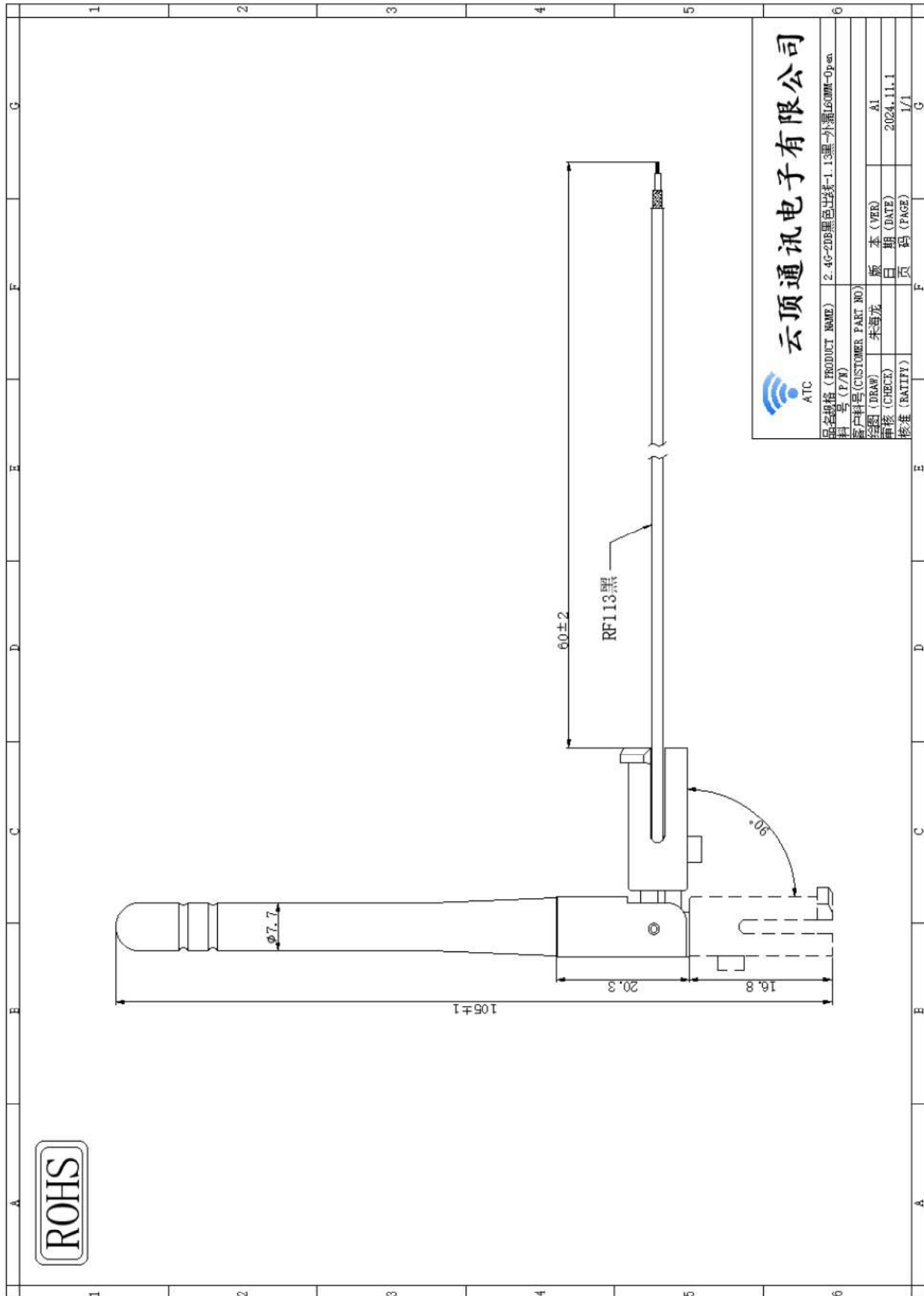
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## 4. Antenna structure diagram:



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## Technical parameters of electrical appliances

### Electrical Specifications

Frequency Range	2400~2500MHz
VSWR	$\leq 1.5$
Input Impedance	50 $\Omega$
Gain	2.95 DBI

### Mechanical Specifications

Antenna color	Black
Input connector	Open
Antenna length	60mm
Working Temperature	-40°C~+85°C
Working Humidity	20~80%

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## Environment performance test:

Project	Test condition	Test results
<b>Storage environment</b>	Test temperature, humidity, pressure without stated condition as followings :1.Temperature: -30 °C ~ +80 °C ;2.Relative humidity: 45%-85%;3,Pressure: 86kpa-106kpa	Electrical and mechanical performance normal
<b>High and low temperature test</b>	Having 5 times cycle between -40°C to 70°C,Then in common condition 1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
<b>Resistance constant hot and humid test</b>	Relative humidity:95±3%,Test temperature: 40°C,last 2 hours , put it after 5 min test the electrical function . Test products during common condition 1-2 hours ,Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
<b>Vibration test</b>	Vibrate Frequency:10-55HZ; Distance :0.35mm;Acceleration :50.0m/s;Sweep frequency cycle:30 times	Electrical and mechanical performance normal
<b>Fall test</b>	From 1 mheight fall down 3 times freely (vertical direction)	Electrical and mechanical performance normal