

# Yuande Electronics (Shenzhen) Co., LTD

## SAMPLE APPROVAL SHEET

( Customer )	Guangzhou Panyu huge car audio equipment Co., LTD
( Material Description )	VX968 BT antenna
( Customer's Part number )	
( Specifications )	FPC(L40*W18mm) + black coaxial line ( $\phi$ 1.13*180mm) + welded
( Supplier's Part number )	136-VX968-10A
( Date )	2024-1-11

This report mainly provides the test status of various electrical and structural performance parameters of antenna VX968 BT antenna

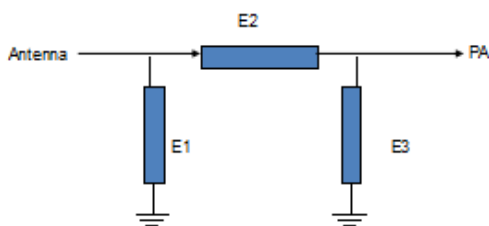


Figure 1 Sky line

The antenna operates on a frequency band 2400-2480MHz . The following table is the electrical performance index of our antenna design.

antenna	VX968 BT antenna
Frequency band	2400-2480MHz
Standing-wave ratio	< 2
efficiency	> 50%
impedance	50 ohm
Polarization mode	Linear polarization

### 1.1.2 Match the circuit diagram

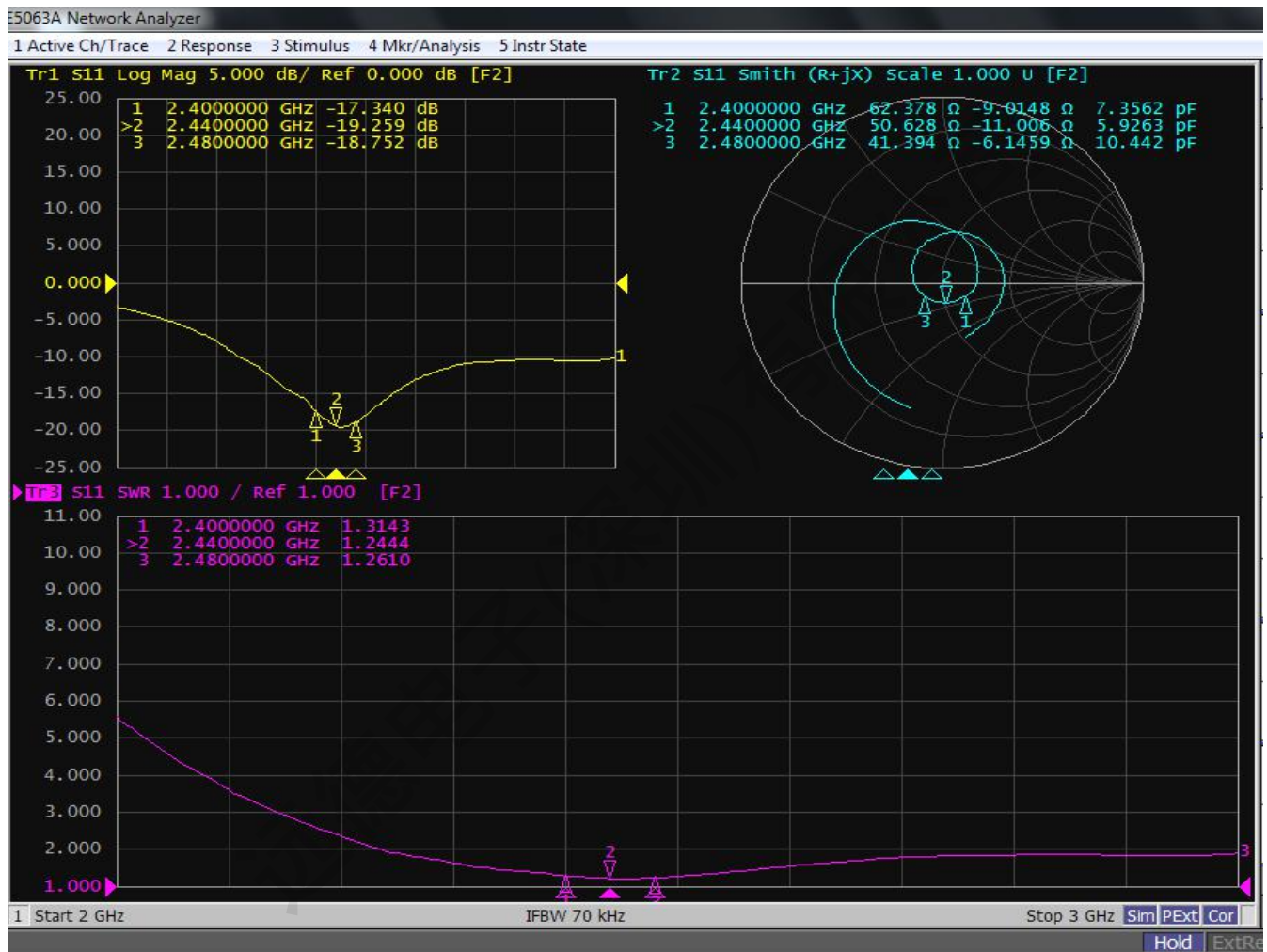


Element	Value
E1(0402)	N/A
E2(0402)	OR
E3(0402)	N/A

## 2.1.2 S11

The following table shows the value of standing wave ratio at the edge frequency of the antenna operating band. The Return Loss and VSWR related waveforms obtained from the test are shown in the figure below. .

(MHz)	2400	2440	2480
VSWR	1.31	1.24	1.26
Return Loss	-17.34	-19.25	-18.75



## 2.2 Gain and efficiency test

### 2.2.1 Test site

Yuande microwave darkroom: Test frequency range of

400MHz - 6GHz 2.2.2 test instrument

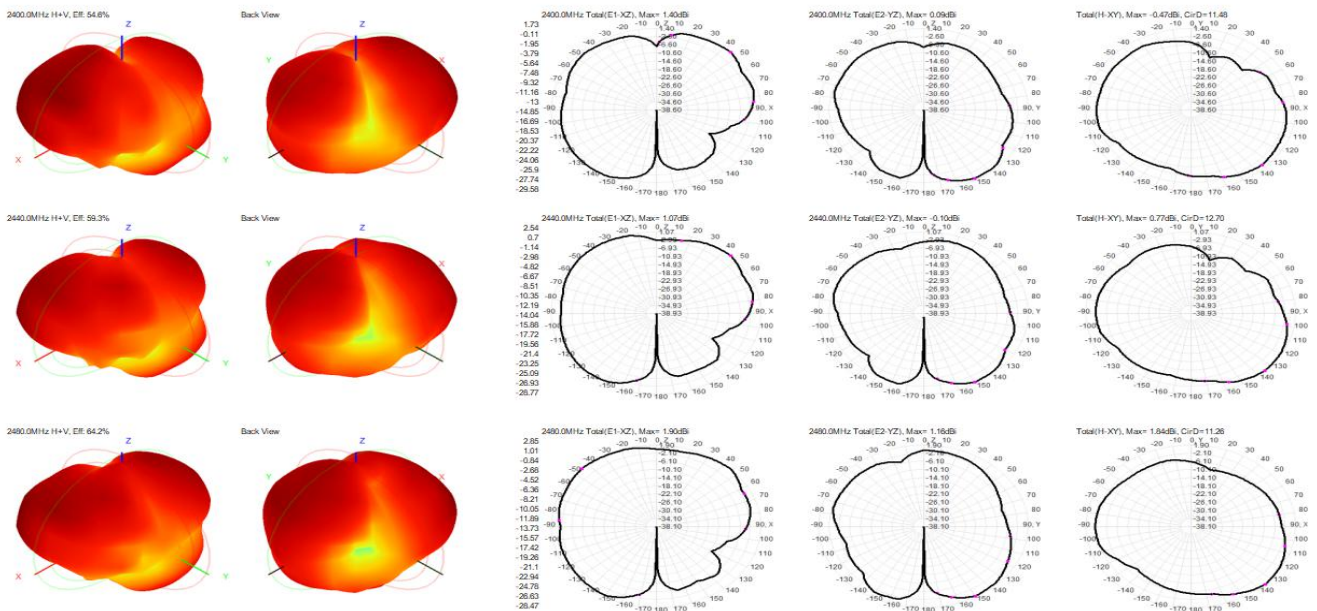
Network analyzer, standard horn antenna, multi-probe near-field antenna test system, test computer, etc.

### 2.2.3 Test result

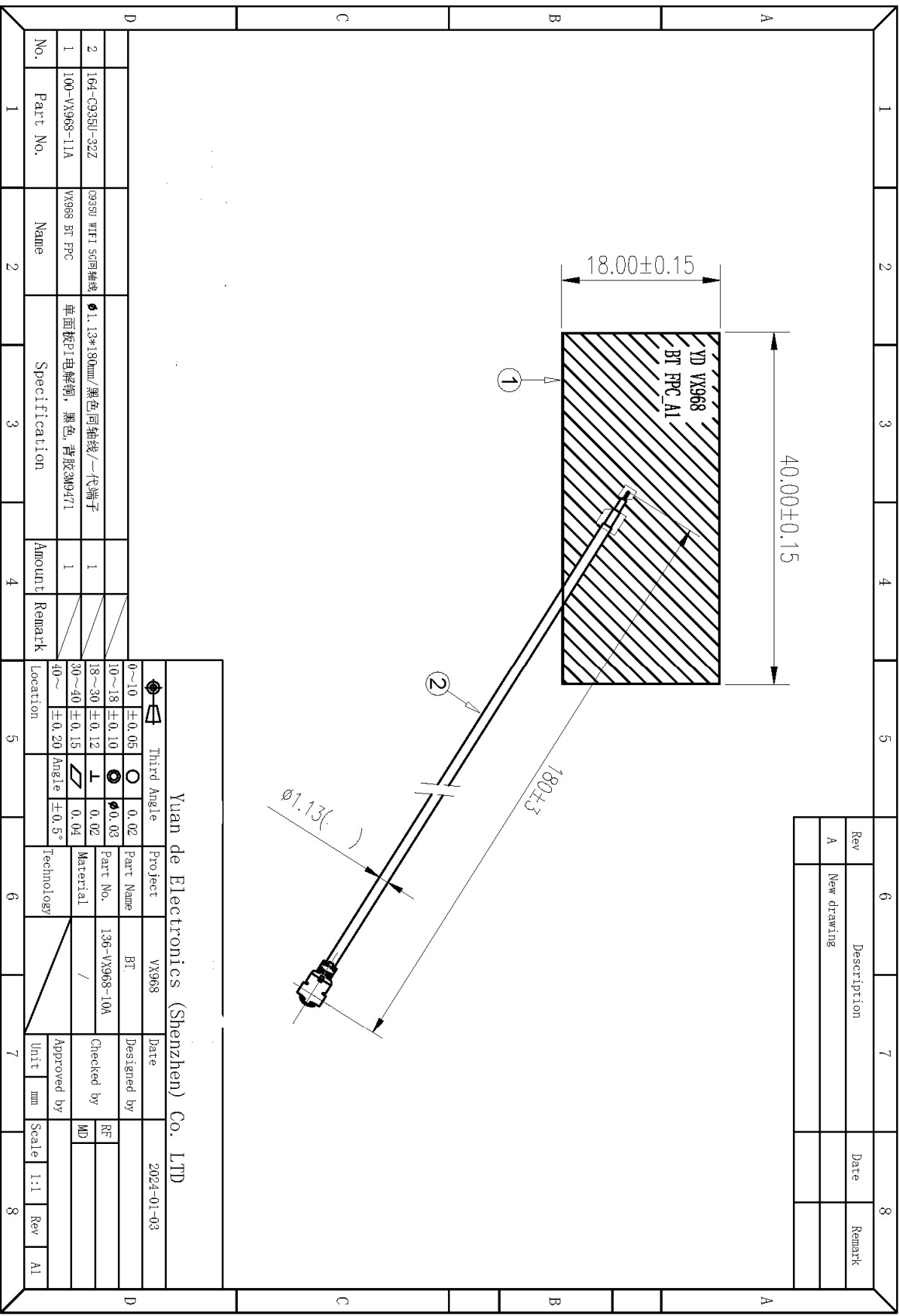
In the microwave darkroom, the values related to efficiency and gain tested are shown in the table below

Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	1.73	54.56
2410	2.03	55.40
2420	2.32	56.22
2430	2.48	57.84
2440	2.54	59.33
2450	2.56	61.26
2460	2.63	63.42
2470	2.68	65.84
2480	2.85	64.22
2490	2.91	61.78
2500	2.27	55.52

### 2.2.4 Passive radiation pattern



4、



Rev	Description	Date	Remark
A	New drawing		

No.	Part No.	Name	Specification	Amount	Remark
1	100-VX968-11A	VX968 BT FPC	单面板P1电解铜, 黑色, 背胶3M9471	1	
2	104-C935U-32Z	C935U 焊1 50同轴线	Ø1.13*130mm/黑色同轴线/-一代端子	1	

Yuan de Electronics (Shenzhen) Co. LTD			
Project	VX968	Date	2024-01-03
Part Name	BT	Designed by	
Part No.	136-VX968-10A	Checked by	RT
Material	/	Approved by	MD
Technology		Unit	mm
Scale	1:1	Rev	A1

Third Angle	0~10	±0.05	10~18	±0.10	18~30	±0.12	30~40	±0.15	40~	±0.20	Angle	±0.5°
Third Angle	0	0.02	0	0.03	0	0.02	0	0.04	0	0.04	±0.5°	