

昊一源科技有限公司

编号: \_\_\_\_\_

版本: \_\_\_\_\_

# Component Approval Sheet

Product Name: \_\_\_\_\_

Part Number: 3002040262

Product Model: \_\_\_\_\_

Vendor: SPEED

P/N: F-KA-N2-0005-000-K0

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# ***SPEED TECHNOLOGY***

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## **Approval sheet of A6701-RX TYPC Internal Antenna**

Customer/Project		Frequency Band	BT		
3002040261	3002040262	Version	T7.2		
Date	12/12/2024				
Material Code	F-KA-N2-0005-000-K0				
SPEED					
Checked by	RF	ERICGUO	Design by	RF	LIZHENGQUAN
	ME	ERICGUO		ME	QIUHONG
	QC	JINGCHUNMEI	Remark	ERICGUO	
Customer					
Date					
Confirmed by	RF				
	ME				
Remark					

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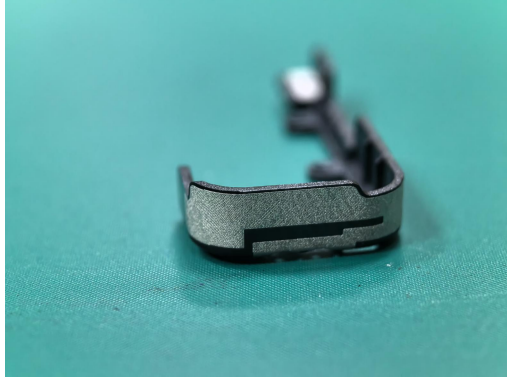
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## 1. Indication

This report summarizes the electrical performance structure diagram confirmed by the user of the lower antenna of the 6701 RX TYPC project. The antenna bracket is a component inside the microphone (see Figure 1).

Antenna 2 IFA antenna (by Typec male head)



Antenna 1 IFA antenna (by Typec female head)

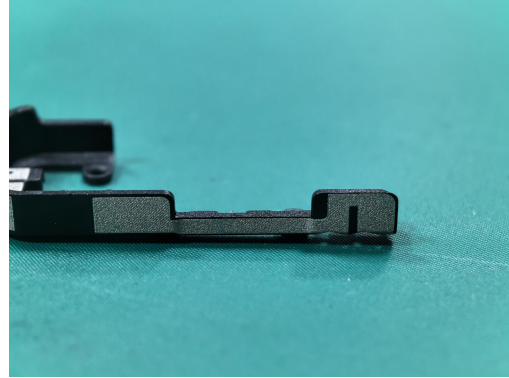
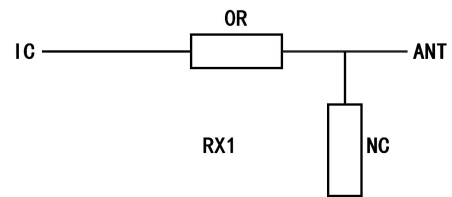
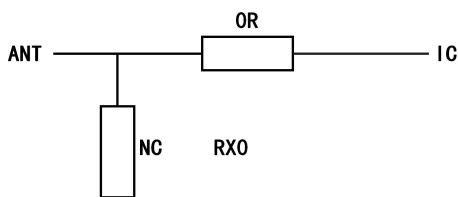


Figure 1: Proposed Antenn

## 2. Matching Circuit Description

Matching circuit provided by customers.

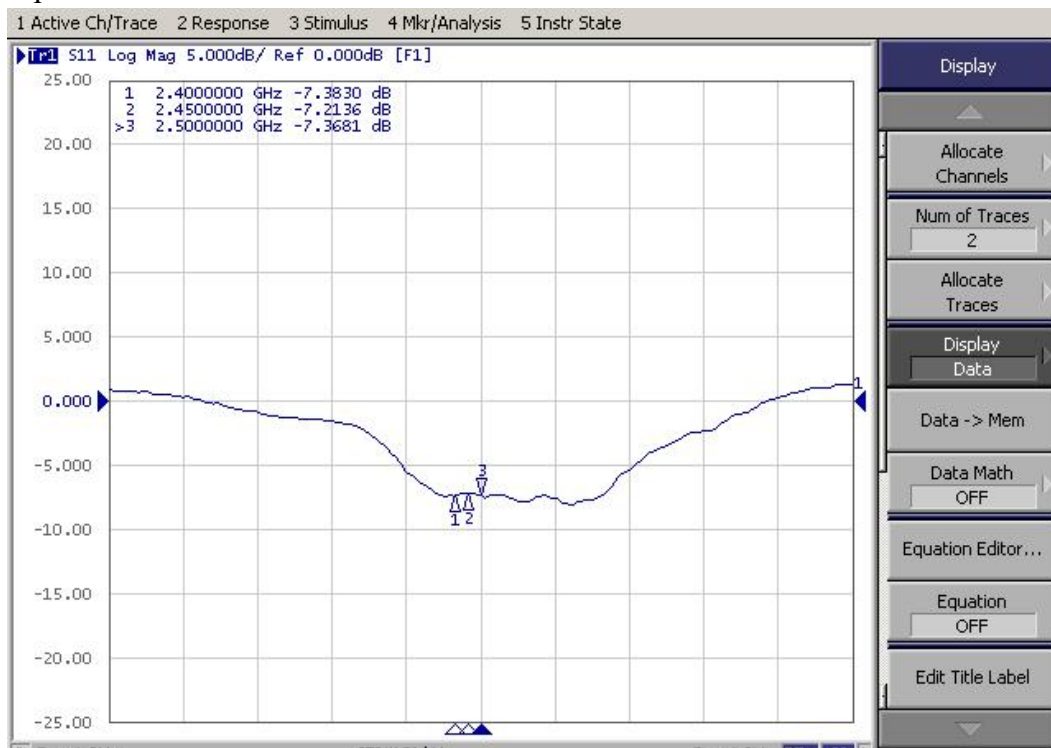


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## 2.2.1 VSWR

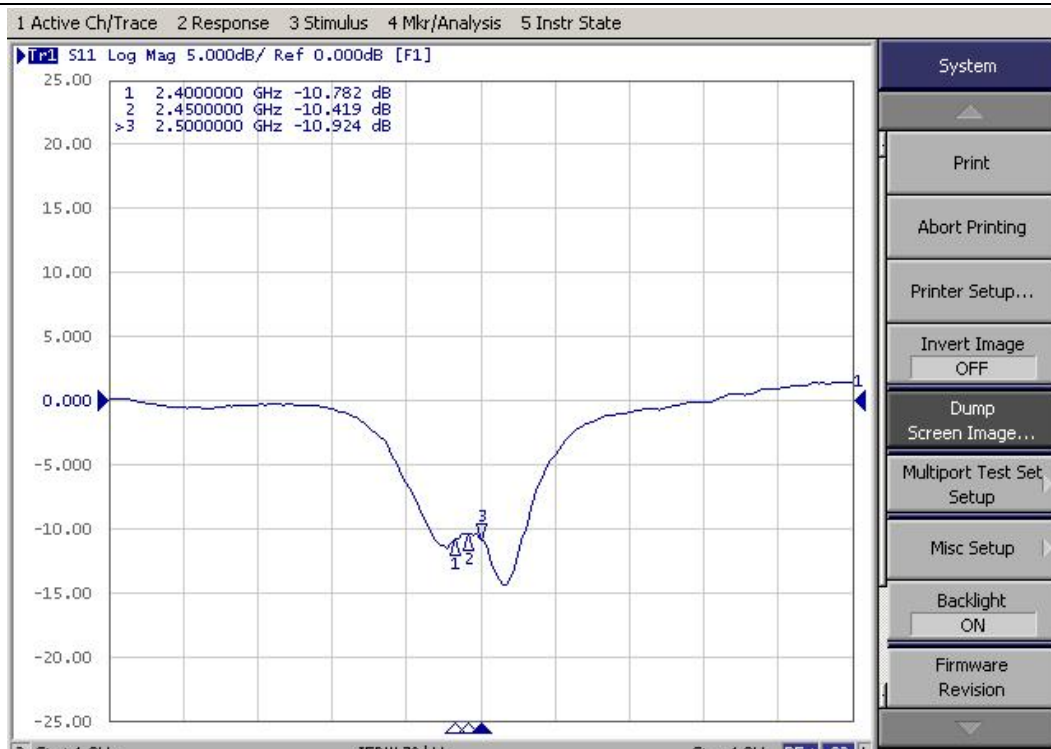
Use Agilent 5071C network analyzer and the described test fixture to measure VSWR (S11).  
Testing in frees pace.



S11 :RX0

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S11: RX1

### 2.2.2 Gain & Radiation Patterns

The gain and efficiency of the antenna are measured in a microwave anechoic room system. The measurement range from 600MHz to 6GHz can be provided. The measurement results are calibrated by dipole and horn standards.

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## Antenna 1 IFA antenna (by Typec female head)

Frequency(MHZ)	Efficiency(db)	Efficiency(%)	Peak Gain (dbi)
2400	-5.99	25.2	0.99
2410	-5.79	26.4	1.01
2420	-5.83	26.2	1.12
2430	-5.7	26.9	1.28
2440	-5.65	27.3	1.37
2450	-5.57	27.7	1.45
2460	-5.64	27.3	1.47
2470	-5.49	28.2	1.55
2480	-5.46	28.5	1.65
2490	-4.93	32.1	1.89
2500	-4.78	33.3	2.02

**TABLE: RX0**

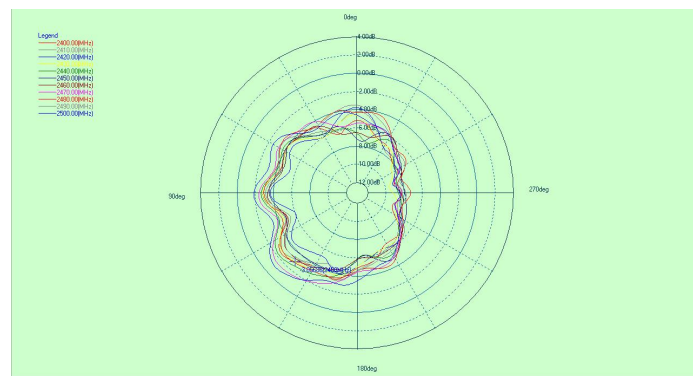
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Antenna 2 IFA antenna (by Typec male head)

Frequency(MHZ)	Efficiency(db)	Efficiency(%)	Peak Gain (dbi)
2400	-4.1	38.9	3.90
2410	-4.08	39.1	3.29
2420	-3.56	44.1	3.68
2430	-3.33	46.4	3.85
2440	-3.48	44.9	3.26
2450	-3.52	44.4	3.56
2460	-3.84	41.3	3.33
2470	-3.7	42.7	3.20
2480	-3.64	43.3	3.64
2490	-3.29	46.9	3.52
2500	-3.1	49	3.26

**TABLE: RX1**

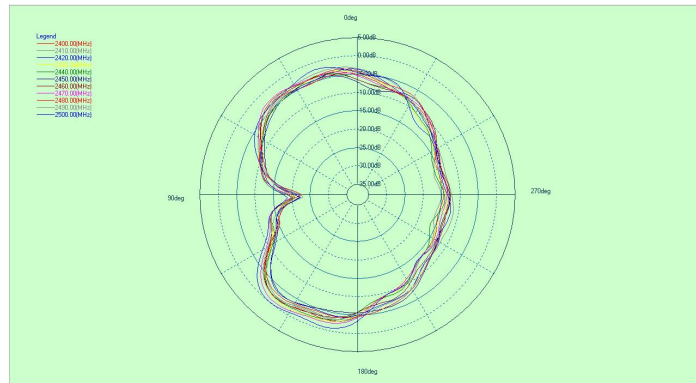


**RX0: Phi=0**

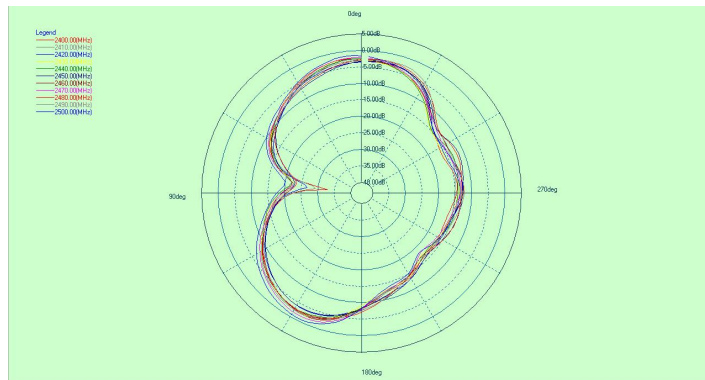
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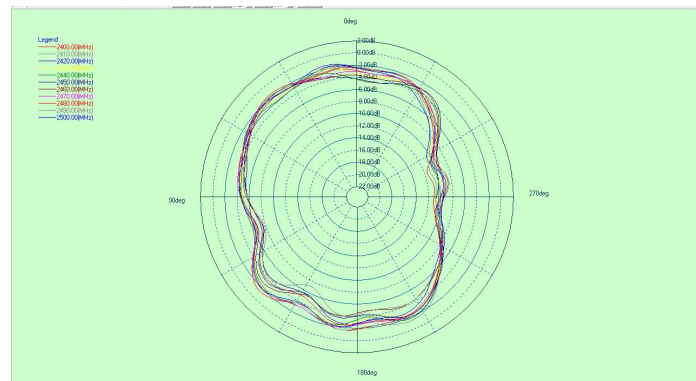




RX0:  $\Phi = 90^\circ$



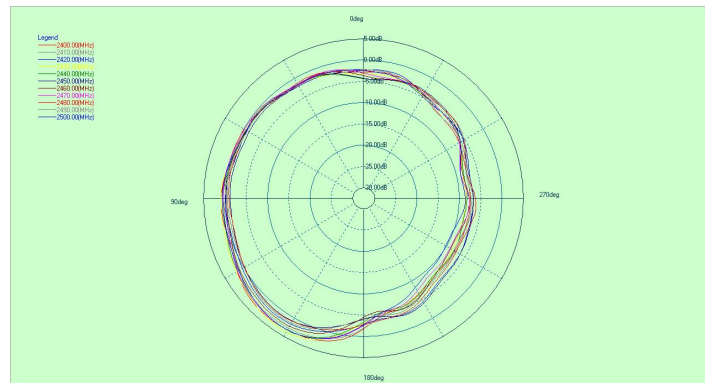
RX0:  $\Theta = 90^\circ$



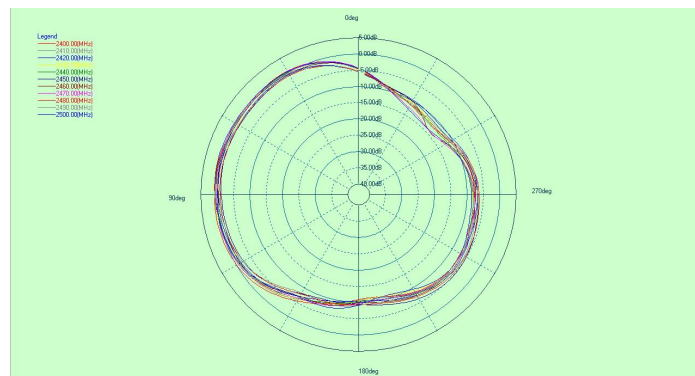
RX1:  $\Phi = 0^\circ$

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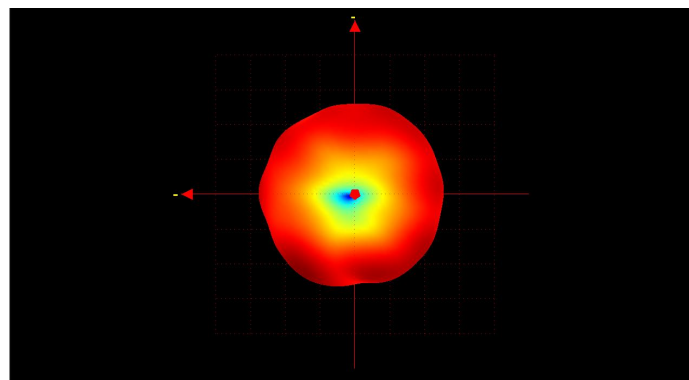
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RX1:  $\Phi=90^\circ$



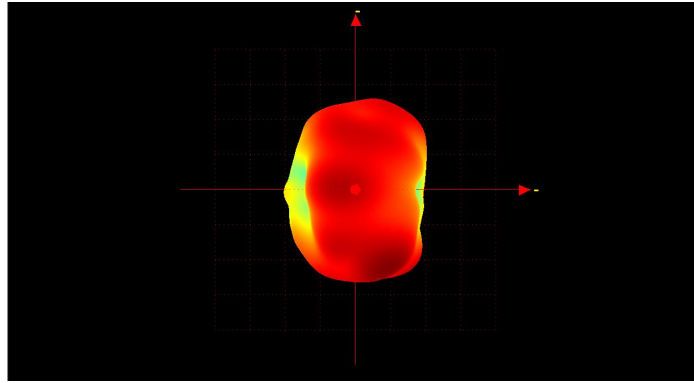
RX1:  $\Theta=90^\circ$



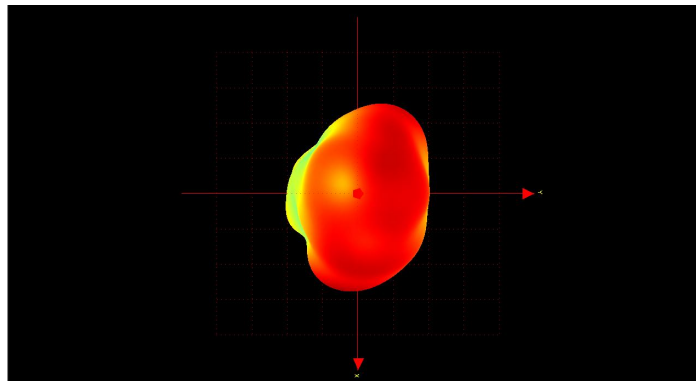
RX0 3D:XOZ

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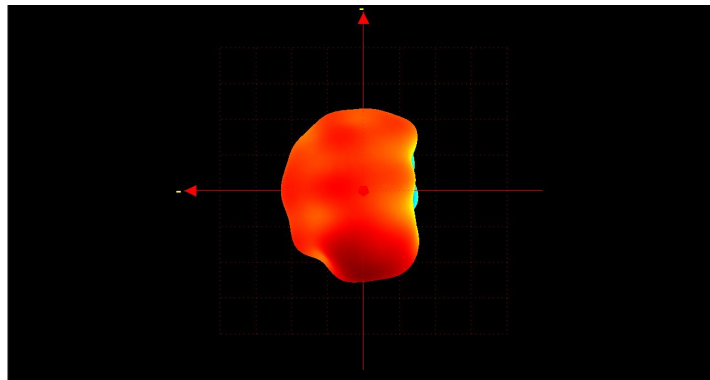
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RX0 3D:YOZ



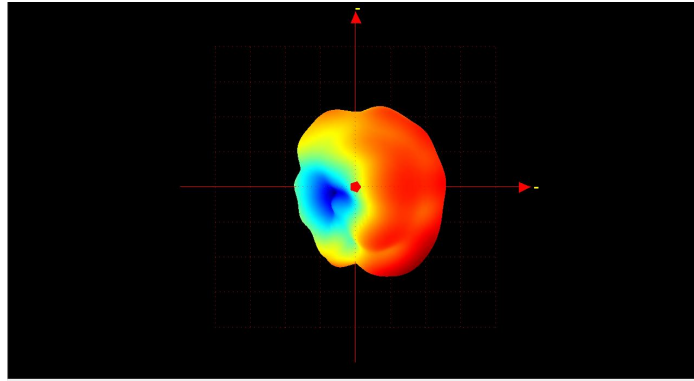
RX0 3D:XOY



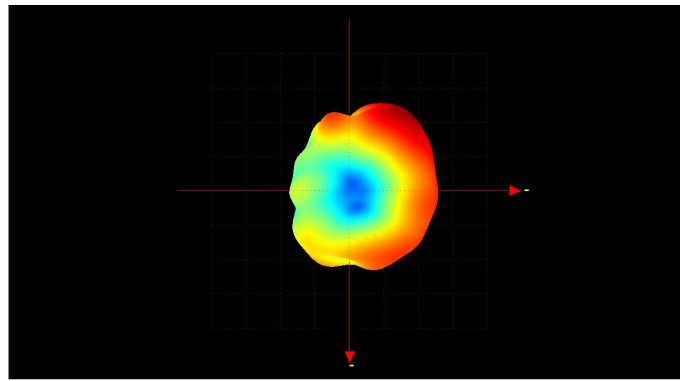
RX1 3D:XOZ

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RX1 3D:YOZ



RX1 3D:XOY

### 3. Suggestions and Conclusion

This paper summarizes the electrical performance and structure diagram of the antenna confirmed by the customer, and tests the antenna with the prototype microphone test fixture provided by the customer.

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## 4.Attachment

### 4.1Appearance drawing:

1	2	3	4	5	6	7	8

## 4.2 Appearance drawing(2D/3D)



A6701 RX TYPE F-KA-N2-0004-  
C ASM 1111.stp 000-K0 A6701 f

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