昊一源科技有限公司

编号：

版本：

Component Approval Sheet

Product Name:

Part Number: 3002040263

Product Model:

Vendor: SPEED

P/N: F-KA-N2-0004-000-K0

SPEED TECHNOLOGY

Manufacturer: SPEED Communication Technology Limited
Address: Room 202, 1F, Building A, Guoren Building,
No. 5 Keji Middle Third Road, Science Park, Yuehai Street, Nanshan District, Shenzhen.

Approval sheet of A6701-RX CAM Internal Antenna

Customer/Project		A6701-RX CAM	Frequency Band		BT
3002040261		3002040263	Version		T6.2
Date		12/12/2024			
Material Code		F-KA-N2-0004-000-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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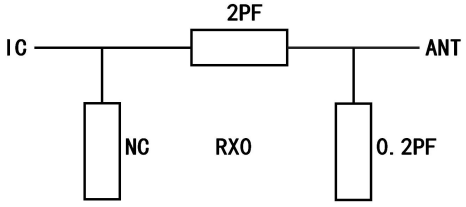
1. Indication

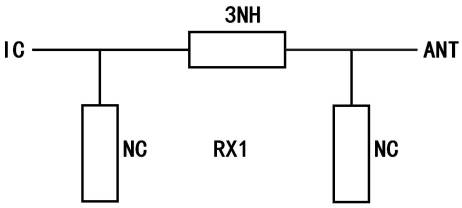
This report summarizes the electrical performance structure diagram confirmed by the user of the lower antenna of the M71R2 CAM project. The antenna bracket is a component inside the microphone (see Figure 1).

Figure 1: Proposed Antenn

2. Matching Circuit Description

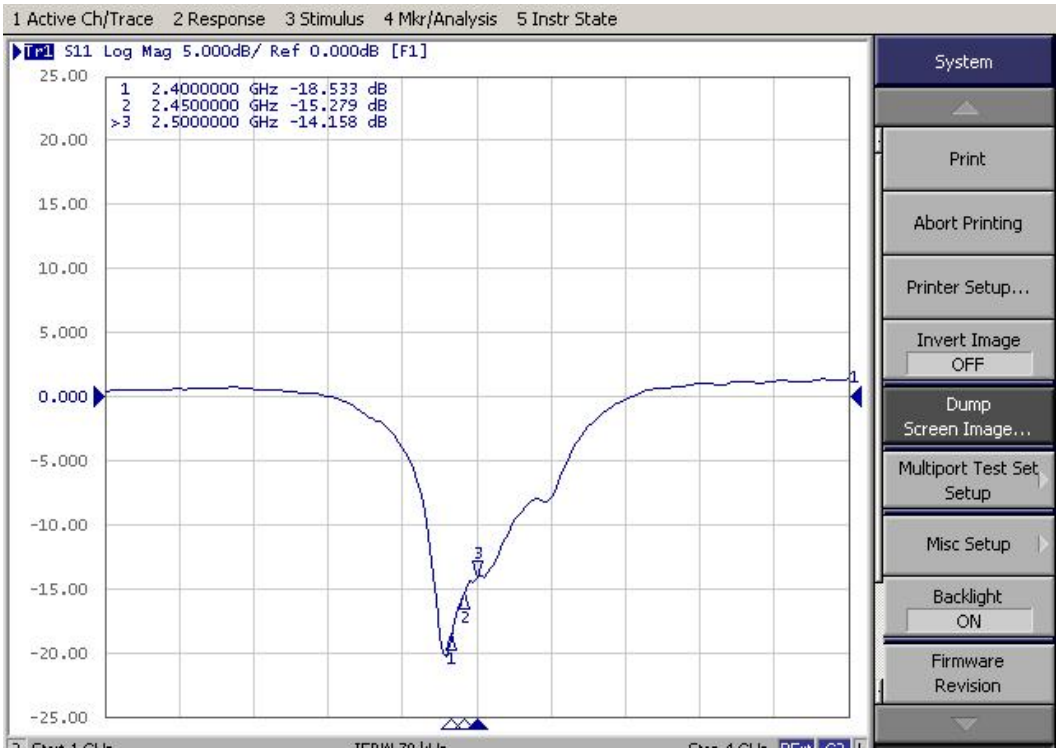
Matching circuit provided by customers.



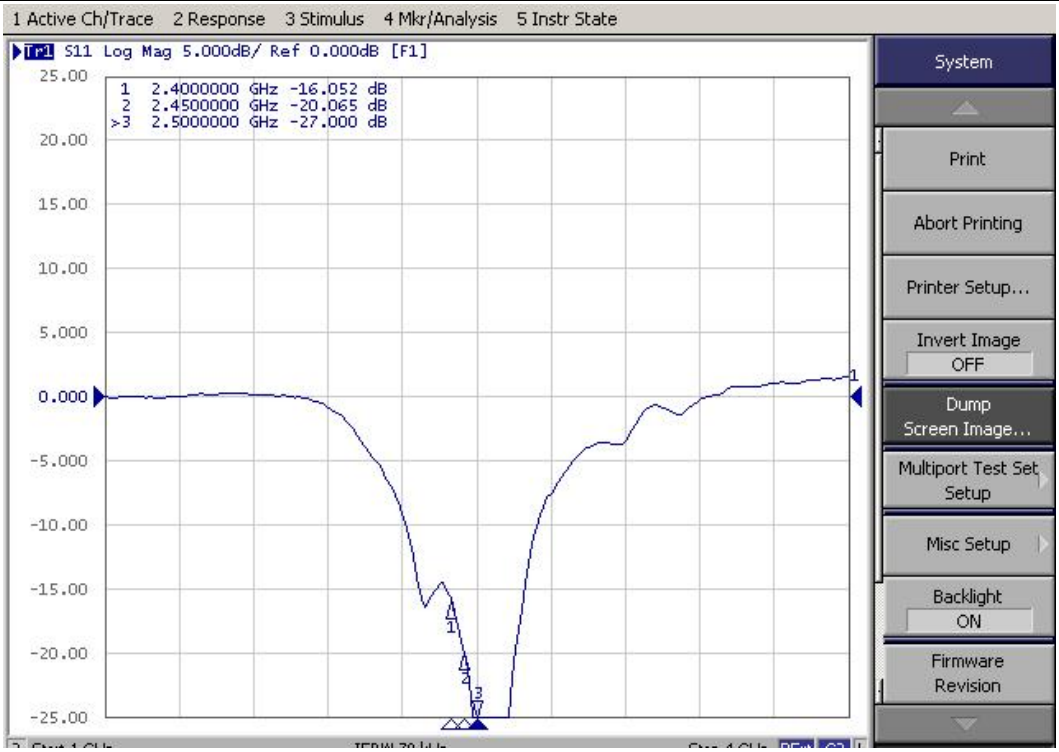


2.2.1 VSWR

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



S11 :RX0



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.

Antenn 1

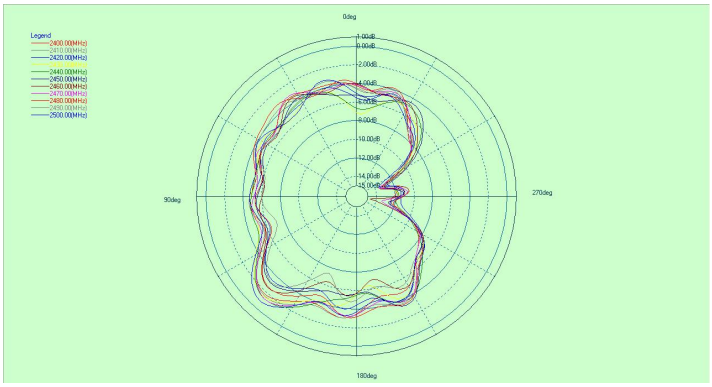
Frequency(MHZ)	Efficiency(db)	Efficiency(%)	Peak Gain（dbi）
2400	-4.82	33	2.32
2410	-4.77	33.4	2.02
2420	-4.78	33.3	1.78
2430	-4.84	32.8	2.95
2440	-5.09	31	2.10
2450	-5.01	31.5	2.23
2460	-4.92	32.2	1.89
2470	-4.69	33.9	2.57
2480	-4.51	35.4	2.25
2490	-4.82	33	1.98
2500	-4.77	33.4	2.46

TABLE: RX0

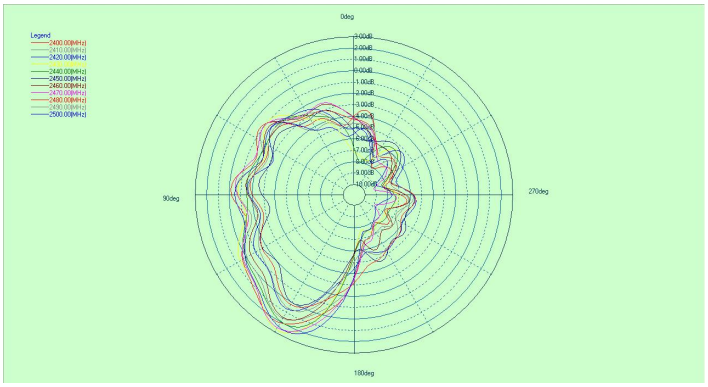
Antenna 2

Frequency(MHZ)	Efficiency(db)	Efficiency(%)	Peak Gain（dbi）
2400	-3.99	39.9	3.68
2410	-3.94	40.4	3.02
2420	-3.75	42.1	3.33
2430	-3.73	42.4	3.54
2440	-3.88	40.9	3.38
2450	-3.81	41.6	3.36
2460	-3.71	42.6	3.76
2470	-3.74	42.2	3.56
2480	-3.71	42.6	3.26
2490	-3.99	39.9	3.42
2500	-3.94	40.4	3.33

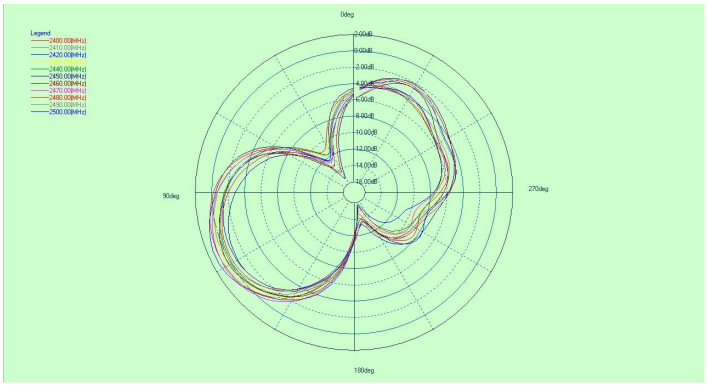
TABLE: RX1



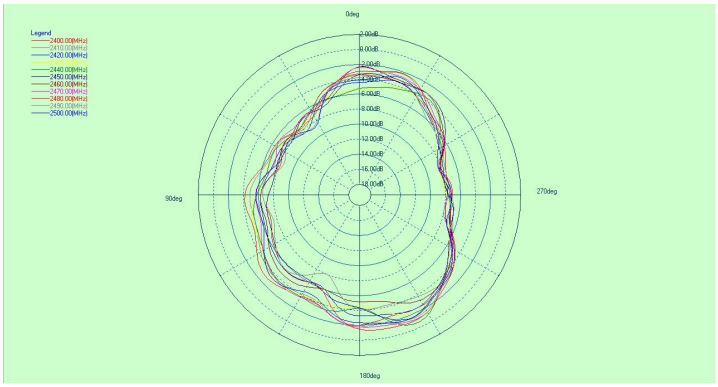
RX0: Phi=0



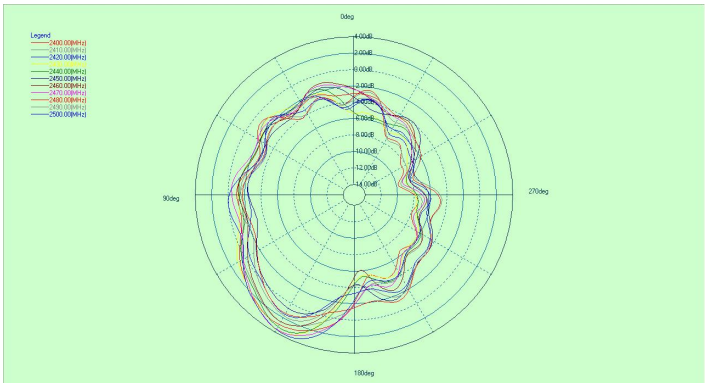
RX0: Phi=90°



RX0: Theta=90°



RX1: Phi=0



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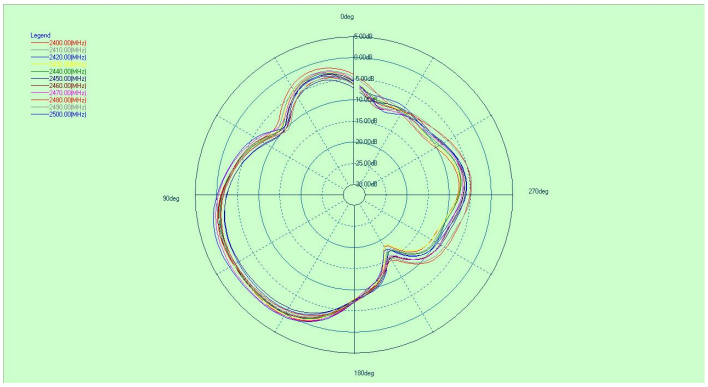

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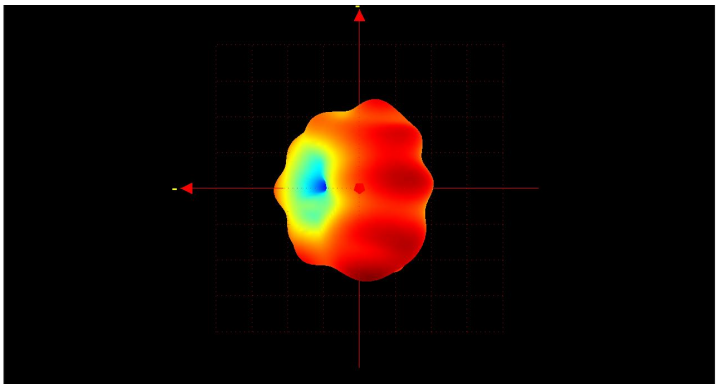
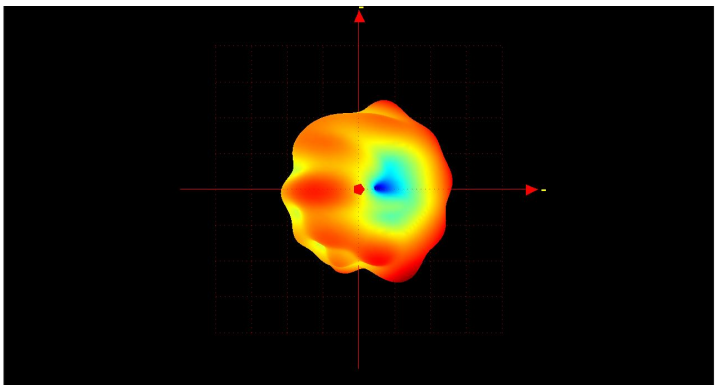
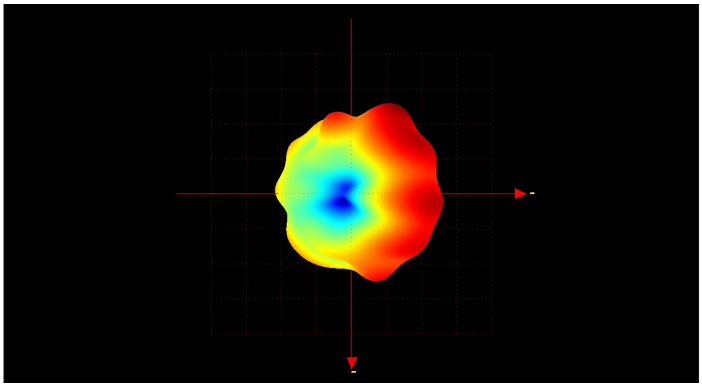


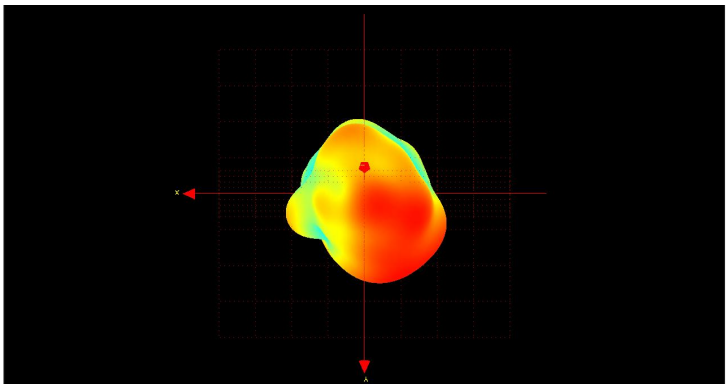
RX0 3D:XOZ



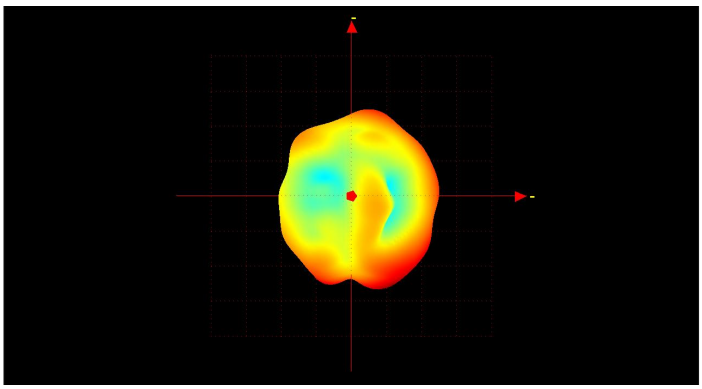
RX0 3D:YOZ



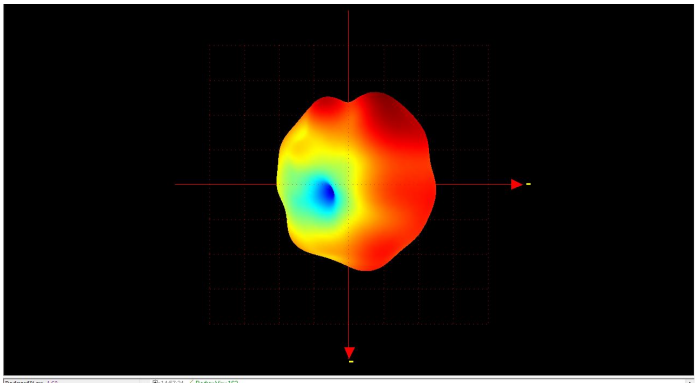
RX0 3D:XOY



RX1 3D:XOZ



RX1 3D:YOZ



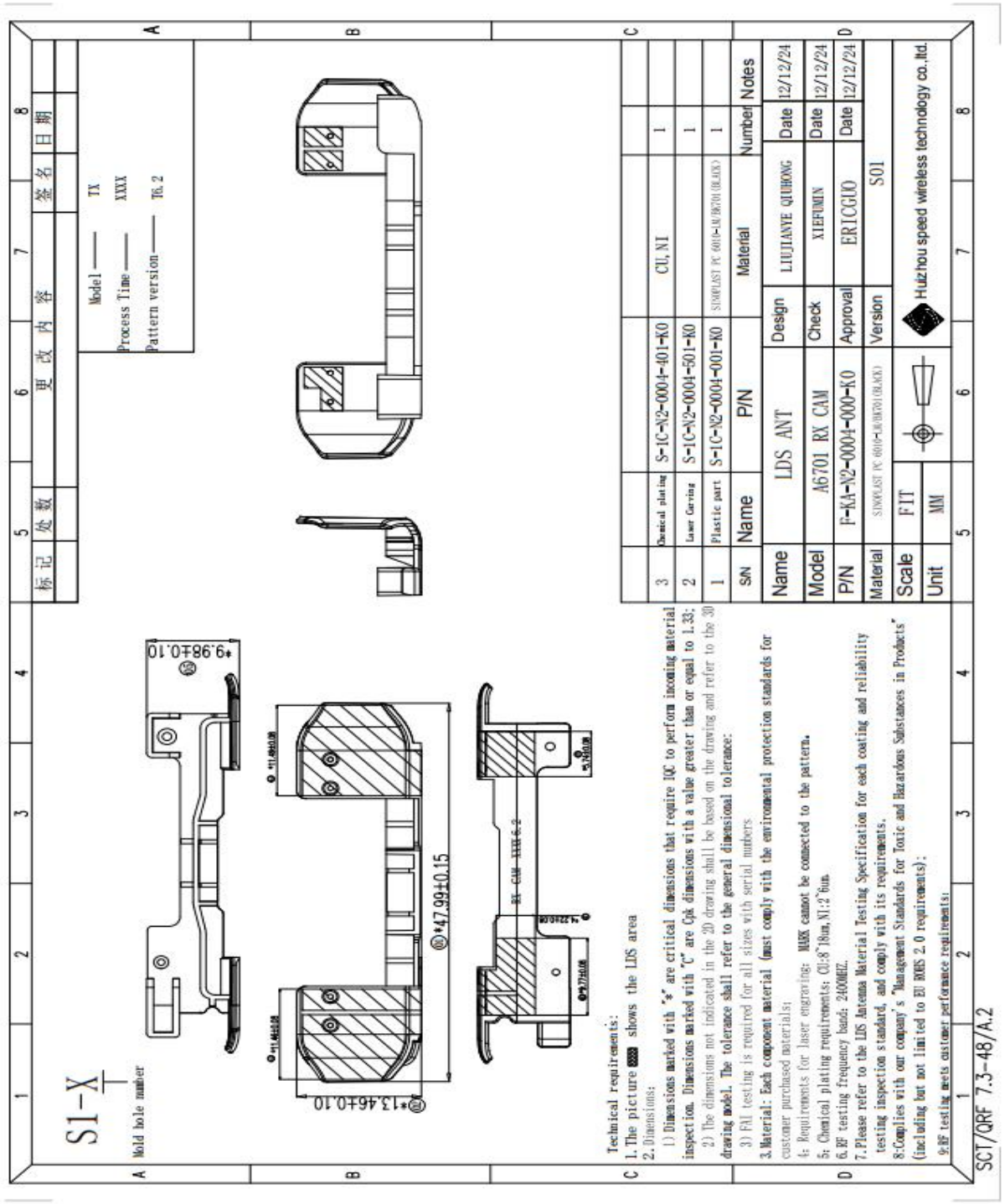
RX1 3D:XOY

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.

4.Attachment

4.1Appearance drawing:



4.2 Appearance drawing(2D/3D)


A6701 RX CAM ASM 1010.stp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