



深圳市鑫恒阳科技有限公司

<https://www.xhy-2008.com>

# 承 认 书

## SPECIFICATION FOR APPROVAL

客户名称 Customer Name: 东声

产品型号 Product Model: SUZI-Antenna 3

客户料号 Customer P/N : SCA050000-0101

鑫恒阳料号 X INHENG YANG P/N: WJ. 05. 0000009

产品规格 SPEC IFFCATIONS: 2400MHZ-2500MHZ

制作日期 Production date: 2024-8-30

封样版本 Samp le Version: V2

鑫恒阳 (XINHENG YANG)		
编制 (FICTION)	结构 (Structure)	研发 (R&D)
肖谭平	何亮	唐师荣
客户 (Customer)		
采 购 (PUR)	品质 (QC)	研发 (R&D)

生产厂商: 深圳市鑫恒阳科技有限公司

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Number	Effective date	Change record
V1.0	2024-8-27	Initial release
V2.0	2024-8-30	Change the antenna pin



## 一、The basic parameters:

A. Electrical Characteristics	
Frequency	2400MHZ~2500MHZ
VSWR	< 2.0
Avg Efficiency	>50%
Impedance	50 $\pm$ 25 Ohm
Polarization	Linear
Peak Gain	2.4G:2.96dBi
B. Material & Mechanical Characteristics	
Material of Radiator	Internal Antenna      Silver gray
Cable Type	/
Connector Type	/
Dimension	/
C. Environmental	
Operation Temperature	- 40 °C ~ + 85 °C
Storage Temperature	- 40 °C ~ + 85 °C

## 二、Electrical Specification :

Those specifications were specially defined for SUZ1-Antenna 3 model.

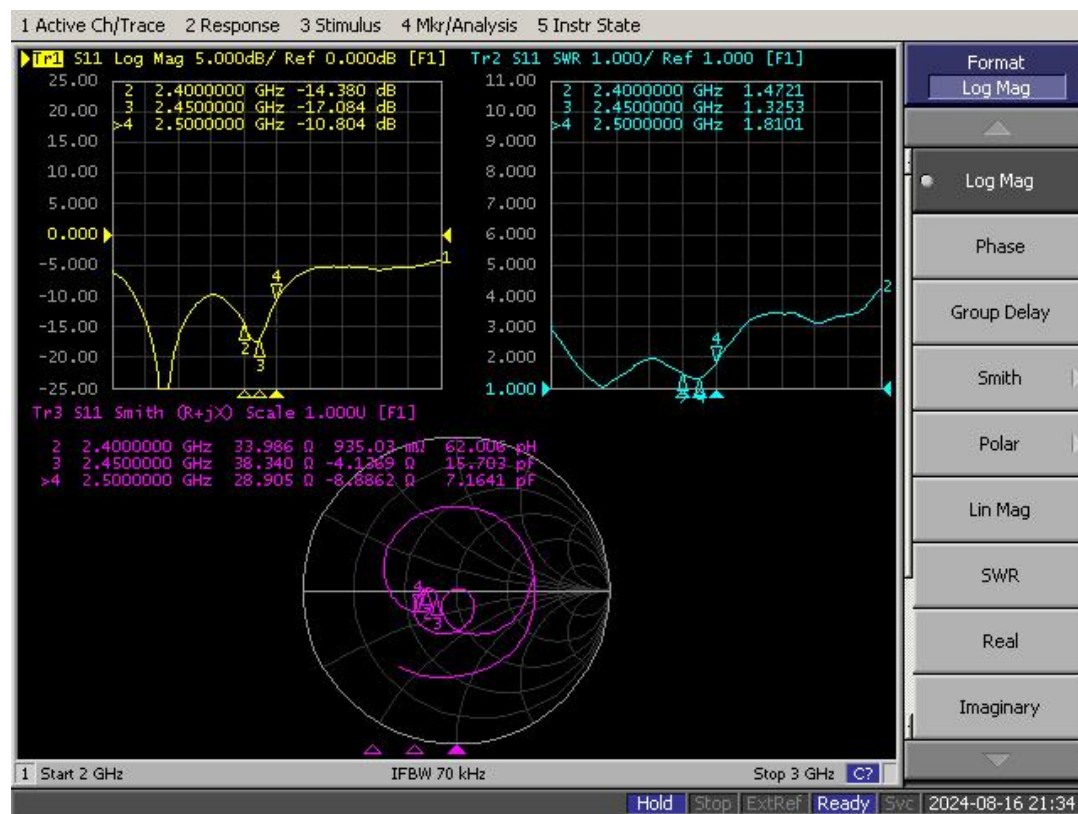
## 三、VSWR

### 1 Measuring Method

1.A 50  $\Omega$  coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2.Keeping this jig away from metal at least 20cm

### 2 Measurement frequency points and VSWR value



## 四、 Anechoic chamber

### Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

### main performance :

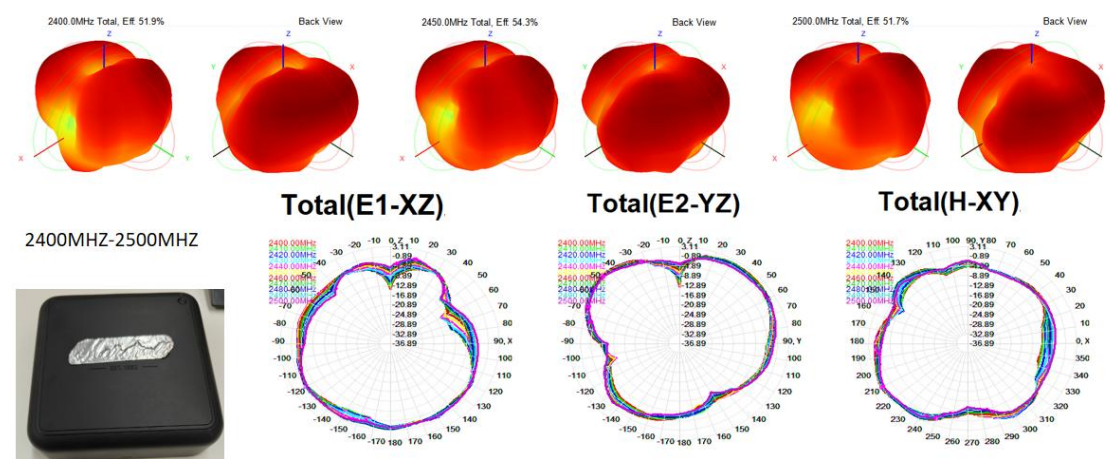
Frequency range: 400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)





## 五、Gain table of Antenn

### 无源3D&2D场型图

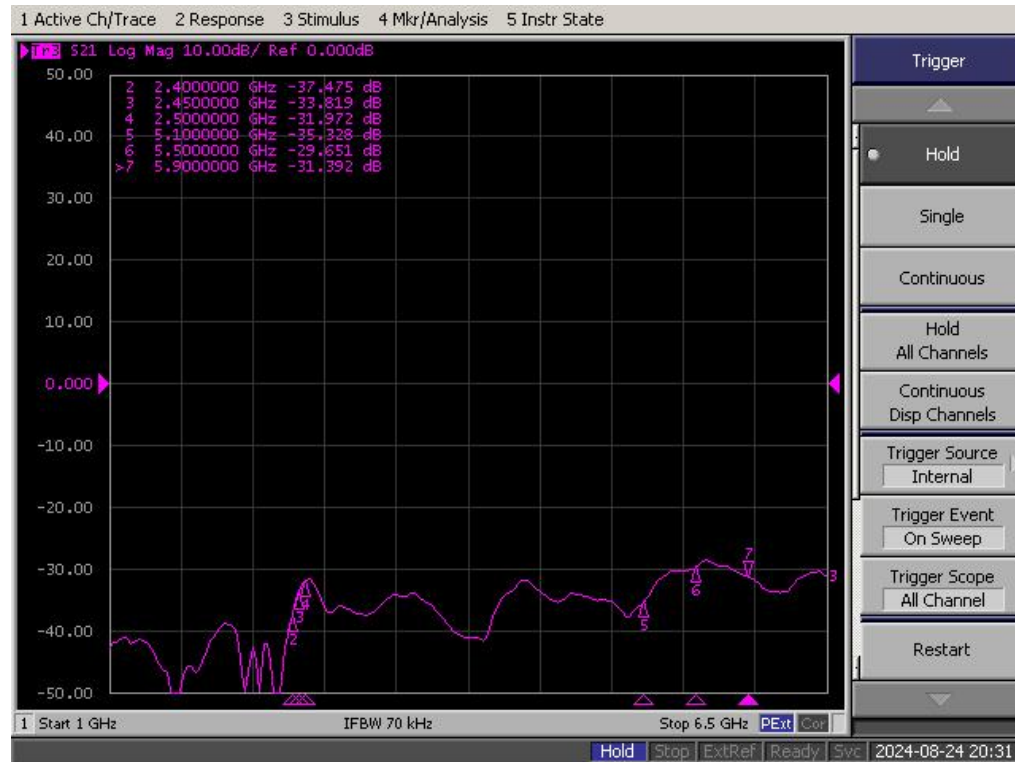


### 无源效率增益

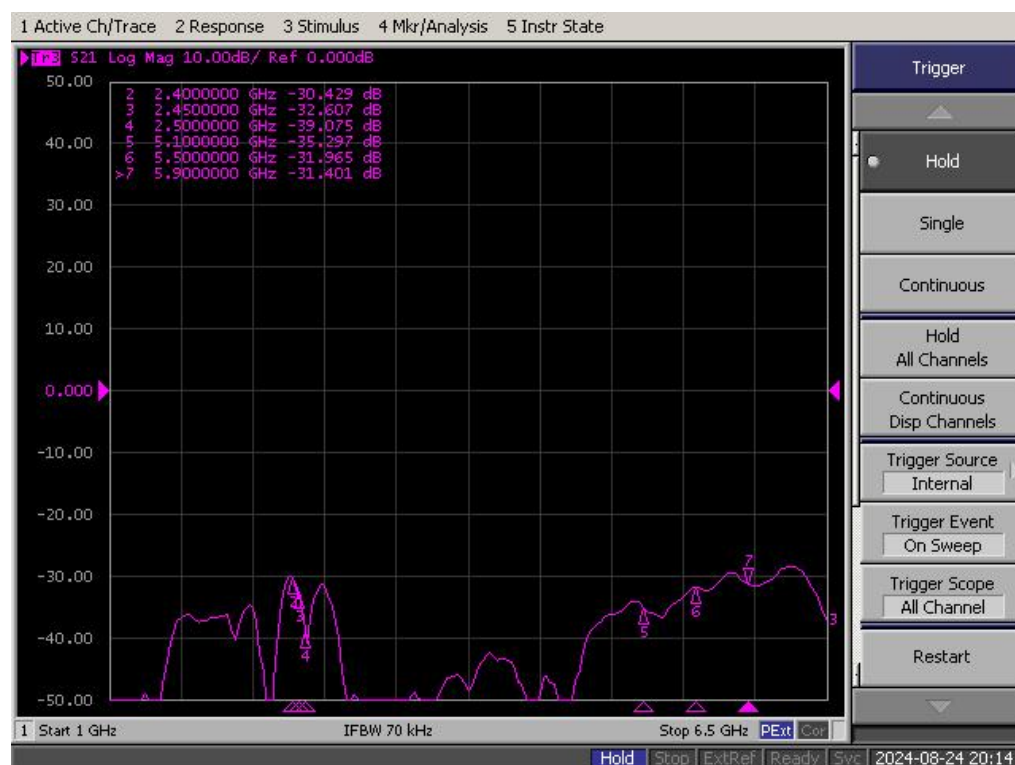
#### Antenna 3

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	51.87	2.11
2410	51.31	2.05
2420	52.10	2.95
2430	51.55	2.75
2440	53.46	2.81
2450	54.32	2.80
2460	55.36	2.91
2470	54.77	2.96
2480	53.75	2.93
2490	52.41	2.86
2500	51.66	2.82

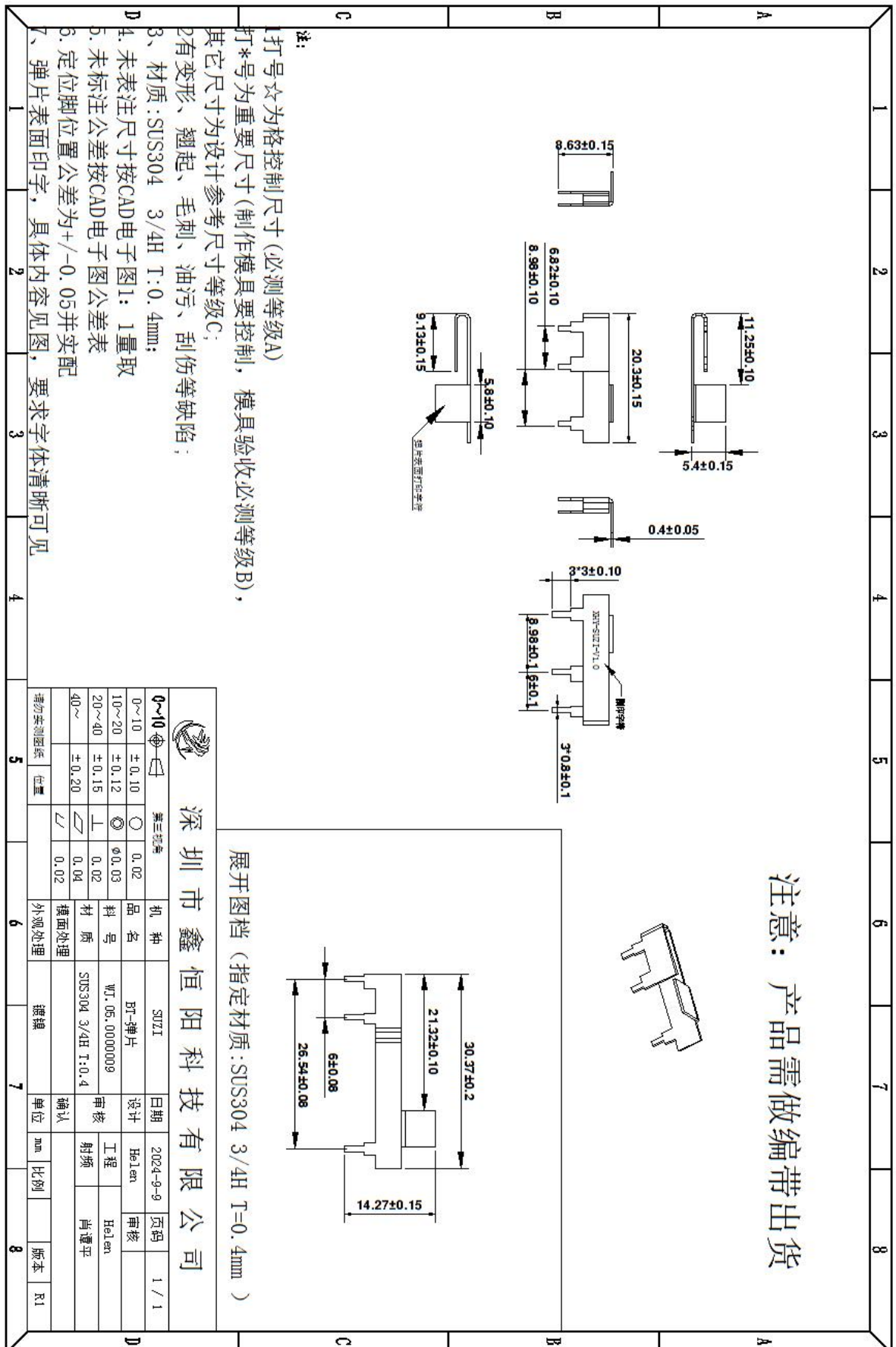
## 天线隔离度 (Antenna 3 & Antenna 1 )



## 天线隔离度 (Antenna 3 & Antenna 2 )



## 七、Antenna Dimensions







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## 八、ROHS:

Antenna WJ. 05. 0000009 meets RoHS requirements.

## 九、 Product packaging instructions:

A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

C. in the attached packing list, certificate of approval, and the factory inspection report.

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