



深圳市众芯瑞科技有限公司

Shenzhen Zhongxinrui Communication Technology Co., Ltd.

Address: Room 502, No. 2 Tangxi Xincun, Gushu Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China

承认书

SPECIFICATION FOR APPROVAL

客户名称

CUSTOMER NAME: 深圳富士伟业科技有限公司

产品名称

PRODUCT NAME: AT5020 陶瓷天线

客户料号

CUSTOMER P/N: T3B50208AT5

众成料号

ZC 料号 P/N: AT5020-B2R8HAA REV:A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
AUDITOR BY:		
APPROVED BY:		
DATE:	2026-7-30	



1. 产品图片



Antenna Picture

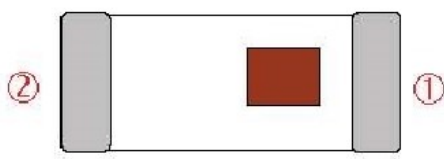


2. 规格表:

主要技术指标		Main technical specifications	
频率范围 (MHZ)	2400-2500	Frequency Range (MHZ)	2400-2500
特性阻抗 (Ω)	50	Impedance (Ω)	50
增益 (dbi)	0.85	Gain (dbi)	0.85
输出电压驻波比	<2	VSWR	<2
最大功率	3W	Admitted Power	3W
极化方式	圆极化	Polarization	circular polarization
方向性	全向性	Radiation	Omni-directional
连接方式	贴装	Connector Type	SMT
物理性能		Physical Properties	
天线基材	陶瓷	Antenna FPCB substrate	Ceramic
工作温度	-40° C ~ +85° C	Operating Temp	-40° C ~ +85° C
保存温度	-40° C ~ +85° C	Storage Temp	-40° C ~ +85° C



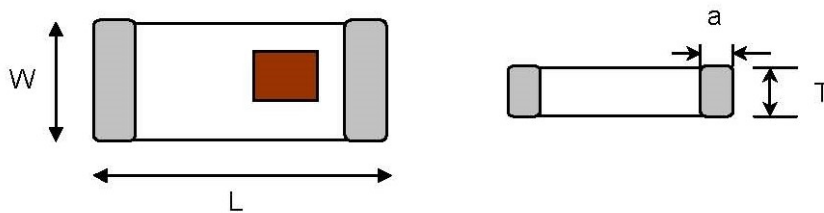
3. Electrical Specification



No.	Terminal Name	No.	Terminal Name
①	Feeding Point	②	NC

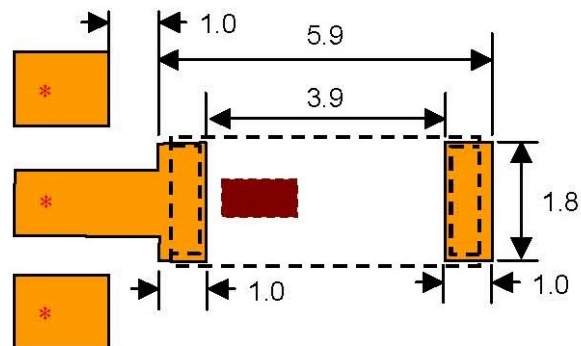
Dimensions and Recommended PC Board Pattern

Unit : mm

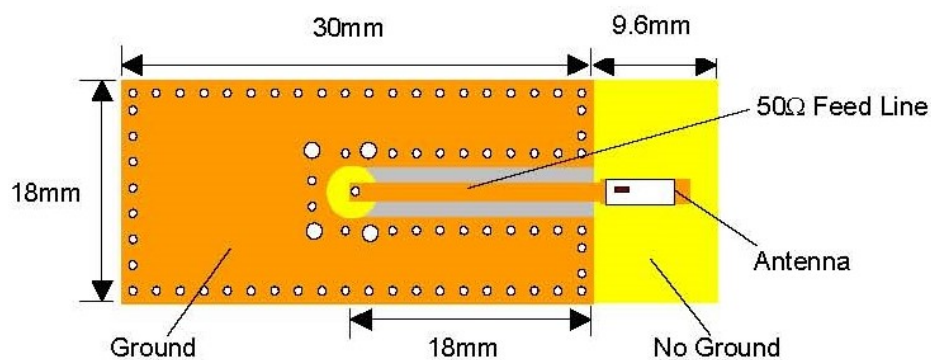


Mark	L	W	T	a
Dimensions	5.0±0.2	2.0±0.2	1.1±0.2	0.5±0.3

(a) Without Matching Circuits



❖ Test Board



*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.



4. Test Condition

4.1	TEST ITEM	TESTING INSTRUMENT	REMARKS
PASSIVE TEST	1.Radiation Pattern 2.Antenna Gain 3. Return Loss 4. S.W.R	1.Satimo SG24(3D) 2. Agilent 8960 E5515C 3. R&S ZVL6	

4.2 Antenna installation diagram:



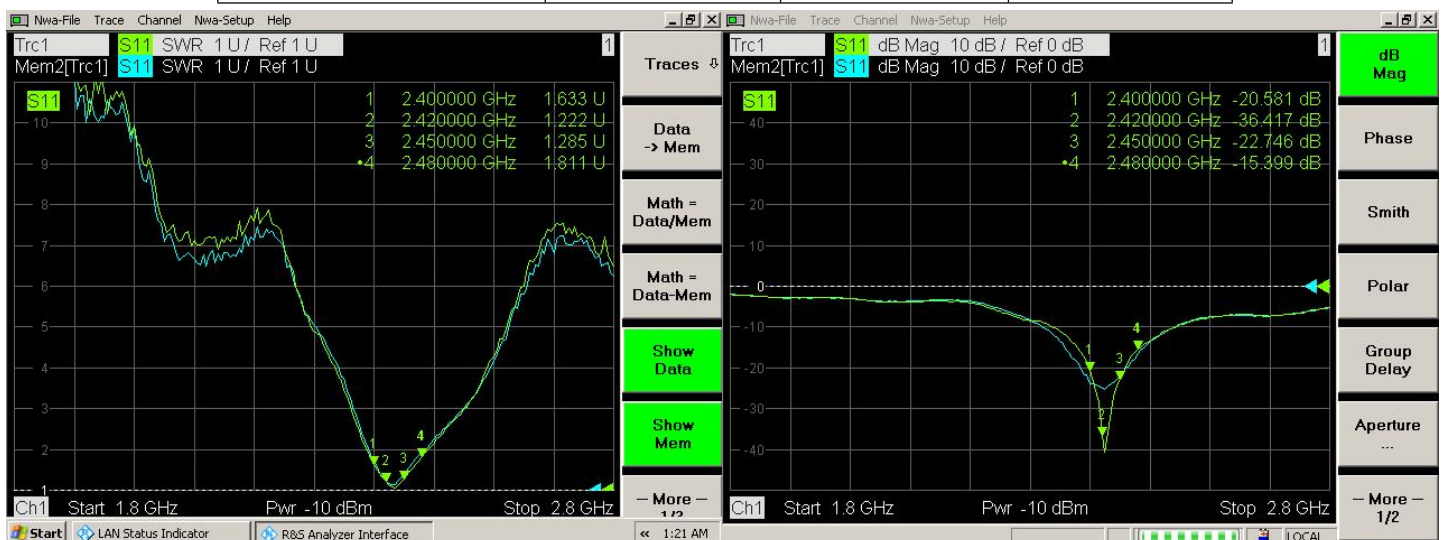
5. RF Performance

5.1 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	-1.36	-0.75	-0.63	-0.11	0.54	0.85	0.16	0.07	0.16	-0.27	-0.08

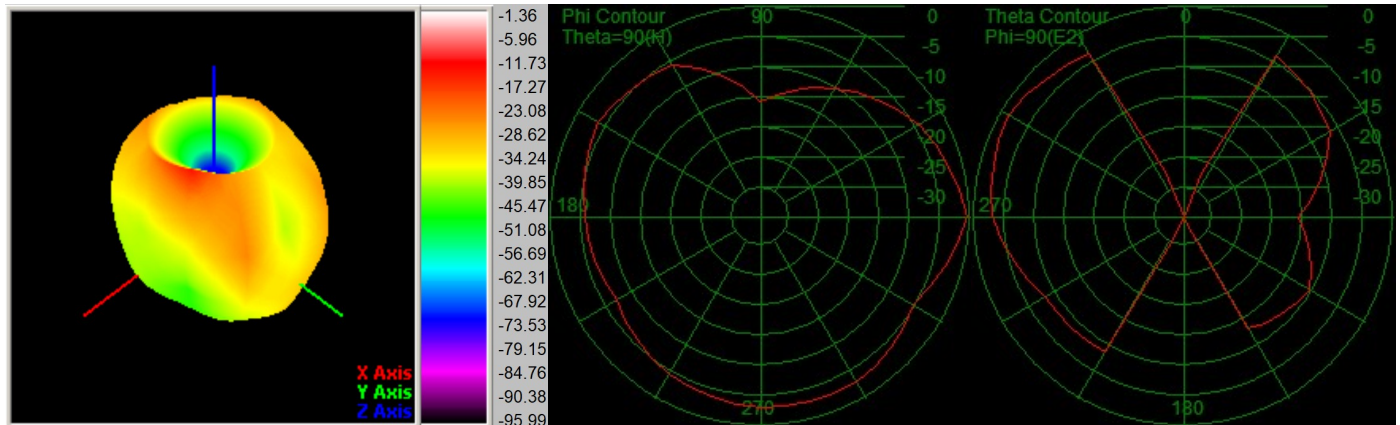
5.2 S Parameter

Frequency (MHz)	2400	2450	2480
Return Loss (dB)	-20.58	-22.74	-15.39
VSWR	1.63	1.28	1.81





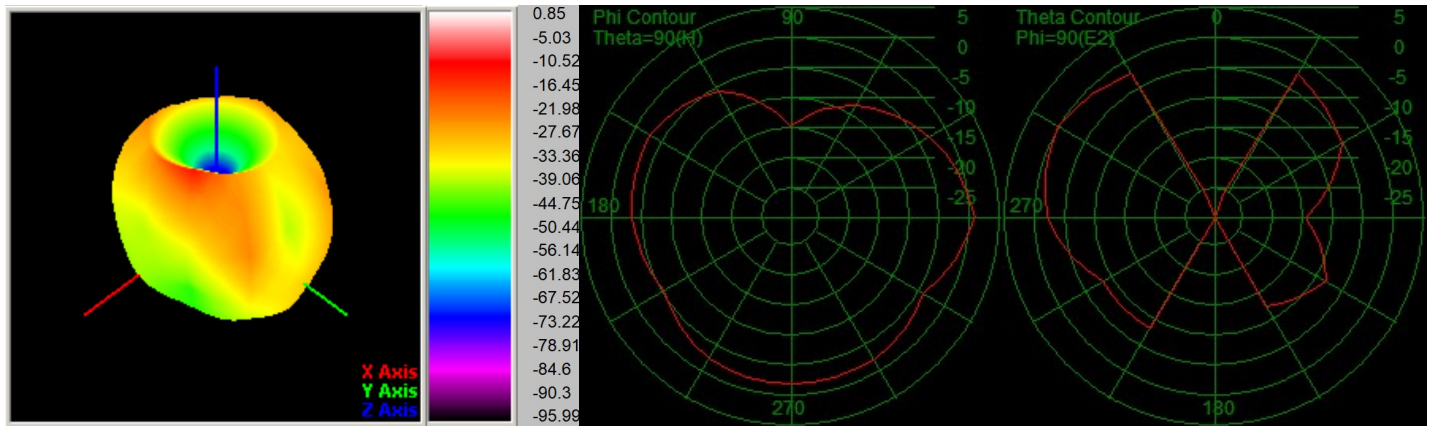
5.3 Radiation Pattern



Passive -Freq2400.00MHZ

Gain: -1.36(dBi)

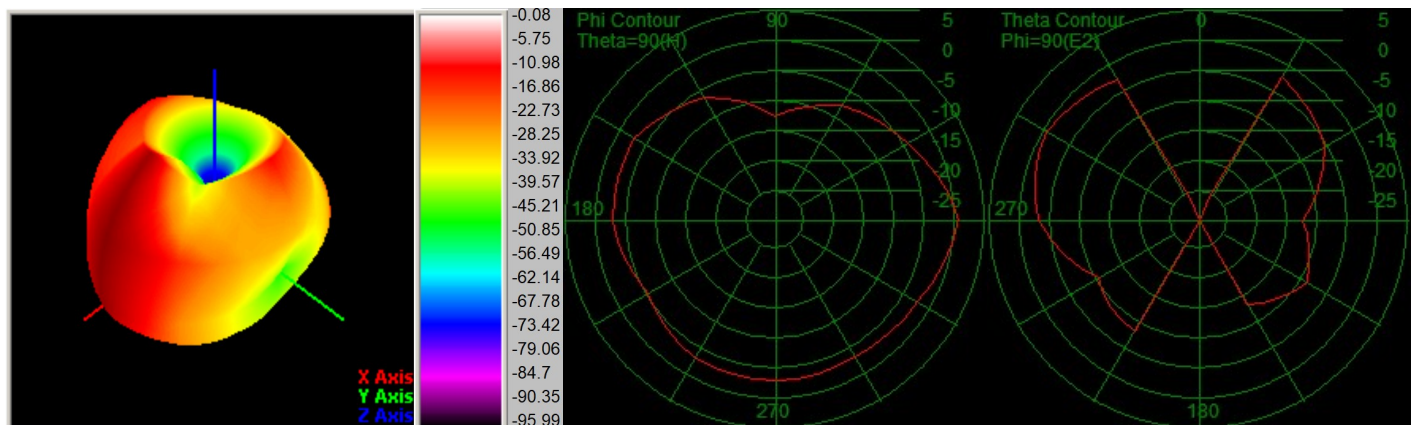
Efficiency: 28.1%



Passive -Freq2450.00MHZ

Gain: 0.85(dBi)

Efficiency: 33.3%



Passive -Freq2500.00MHZ

Gain: -0.08(dBi)

Efficiency: 28%