SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A0)

CUSTOMER(客户名称)	Neo Chinontec Co., Ltd.
CS P/N(客户机种)	K300（谱程）
PART NAME(品名)	BT antenna components
FREQUENCY(频率)	2400~2500MHz
CUS NO.(物料编号)	
ZTX NO.(物料编号)	2.00001398
DATE(日期)	2024/11/29

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注):

Sign(客户确认签字盖章):

Shenzhen ZTX Communication Technology Co., Ltd				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		Le.qin	Jianeng.Feng	

深圳市中天迅通信技术股份有限公司 2024.11.23 研发专用章

ZTX 中天迅

Shenzhen ZTX Communication Technology Co., Ltd

Address:
No.34, ShilongAvenue, ShiyanTown, BaoanDistrict, Shenzhen, (TengdaIndustrialPark)
zip: 518000 Tel: 0755-27588320
Fax: 0755-27588045 http://www.chinaztx.com

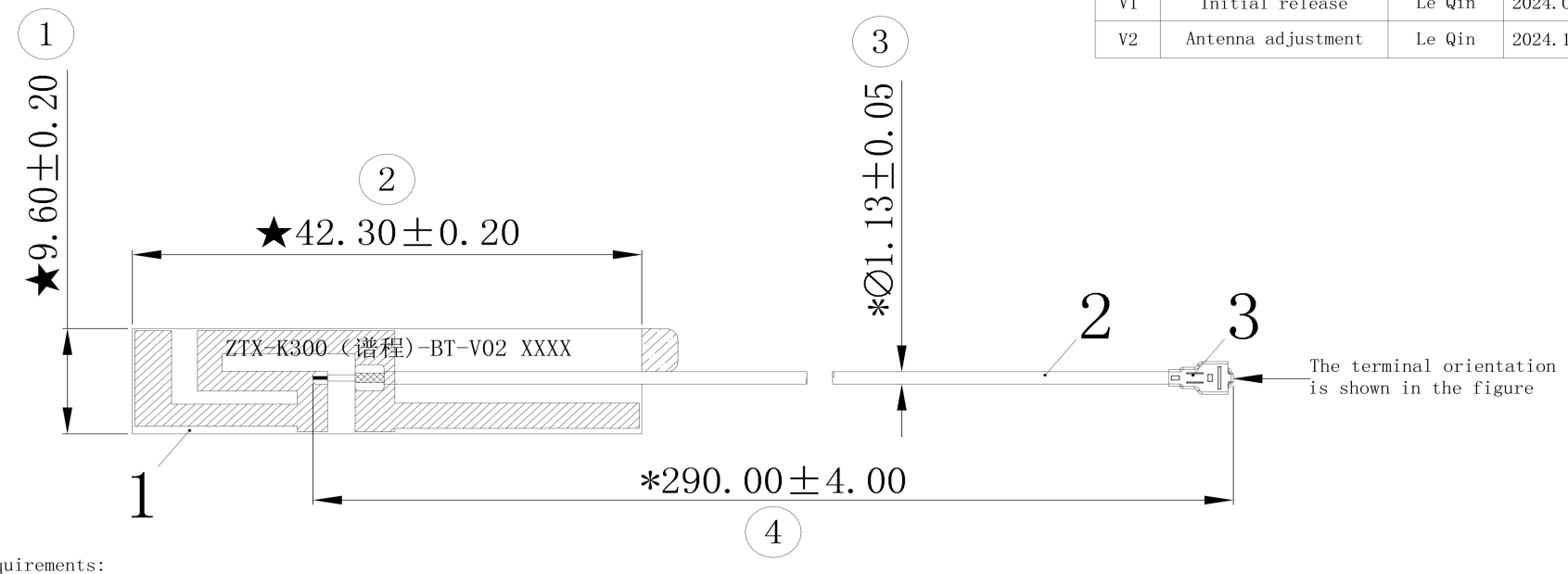
修订履历
REVISION HISTORY

版本/次 REVISION	修改项次 DESCRIPTION	修改日期 DATE
A0	首次发行 First time to issue	2024/11/29

目录
CONTENT

Drawing No.: ZTX-QR-RD-013

Rev	Description	Designed	Date
V1	Initial release	Le Qin	2024.08.09
V2	Antenna adjustment	Le Qin	2024.12.03



Technical Requirements:
1、Dimensions marked with "*" are key dimensions and must be tested before shipment; dimensions marked with "★" are dimensions subject to CPK control; for tolerances not specified, refer to the tolerance table within the drawing frame for control.
2、The outer shape should be smoothly punched and cut, and the internal circuits should not be affected by the punching and cutting.
3、There should be no defects such as stains, wrinkles, exposed copper, etc. on the surface of the product.
4、The soldering points should be full (the solder points must completely cover the pads), and there should be no defects such as false soldering, dry soldering, or pointed tips.
5、The ink surface should meet the requirements of the crosshatch adhesion test.
6、All materials should meet the environmental protection requirements of ROHS2.0/Reach.
7、Packaging method: Shipped in PE bags.
8、Without the confirmation of ZTX Company, the materials should not be changed casually.

number	Material Name	Material Specification	dosage	remarks
3	Generation 1 terminal	Phosphor bronze / surface gold plating	1	/
2	coaxial cable	Double tin / FEP (Fluorinated ethylene propylene) / white	1	/
1	FPC antenna	Single-sided board, Electrolytic copper, One and a half pairs, Pads with OSP (Organic Solderability Preservative) treatment	1	black

ZTX 深圳市中天迅通信技术股份有限公司
Shenzhen Zhongtianxun Communication Technology Co., Ltd

General Tolerance		
Dim \ Grade	A	B
0-10	±0.10	±0.20
10-20	±0.15	±0.30
20-40	±0.20	±0.40
40≥	±0.25	±0.50

Date 日期: 2024.12.03	Unit 单位: mm	Rev 版本: V2	Scale 比例: 1:1	Project Code 项目代码: ztx4552
Designed 设计: Le.Qin	Material 材料:			Project Name 项目名称: K300（谱程）
Checked 审核: Jianeng.Feng	Process 工艺:			Product Name 产品名称: BT antenna_组件
Approval 批准: Guohua.Zou	Third Angle 第三视角			Material Code 物料编码: 2.00001398

1.Antenna Specification/天线标准

Antenna Specification/天线技术参数

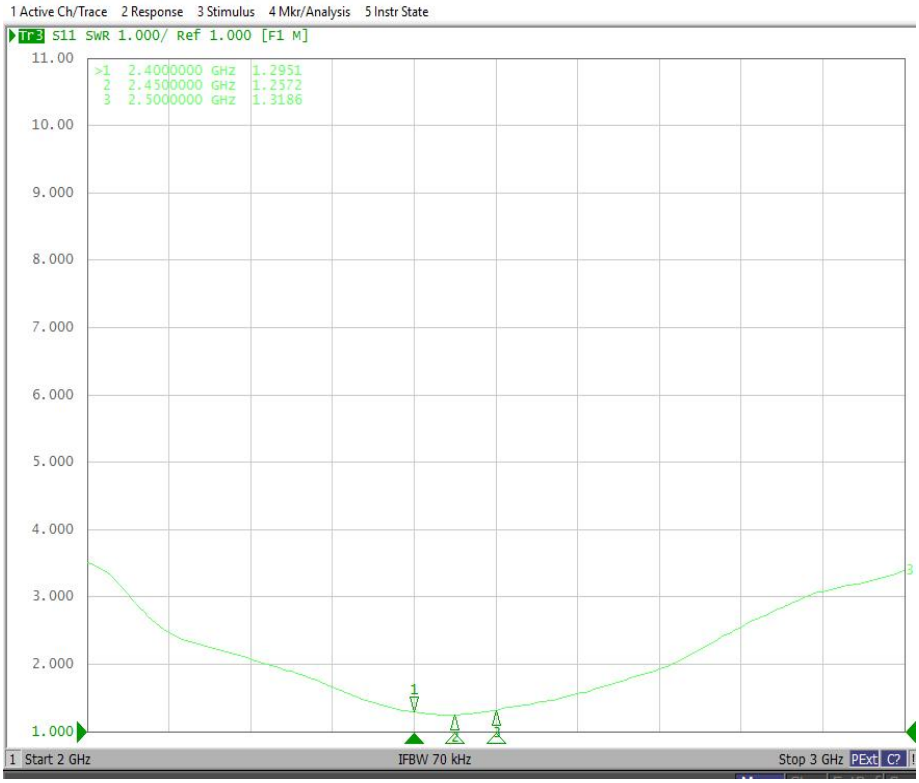
Electrical Specification/电气特性		
Item/目录	**Specification/规格**	**Comment/备注**
Freq.Range/频段范围	2400MHz-2500MHz	
Impedance/阻抗	50(Ω)	
Directional/辐射方向	Omni Directional	
Polarization/极化形式	Vertical	
VSWR/驻波比	≤2	
Peak Gain/峰值增益	2.29dBi	
Antenna Efficiency/天线效率	2400MHz-2500MHz≥40%	
Test Condition/测试条件	Passive test(无源测试)	
Mechanical Specification/机械指标		
Antenna Type/天线类型	内置天线	
Mating Connector Type/连接器类型	RF端子1代	
RF Cable Type/射频线型号	1.13 WHITE	
Size/外形尺寸	290*42.3*9.6mm	
Mounting/固定类型	背胶	
Pull Test/拉拔力	10N MIN	
Salt Spray/盐雾测试	48(H)	
Environmental Specification/环境指标		
Operating temp/工作温度	-40℃~+80℃	
Storage temp/存储温度	-40℃~+80℃	

要求 Requirement：

1.无源性能：电压驻波比、回波损耗、天线效率、增益、1D方向图、3D方向图 Passive performance: VSWR,Return Loss,Antenna Efficency,Gain,1D Radiation Pattern and 3D Radiation Pattern

2.有源性能：OTA性能（全向辐射功率、全向灵敏度）、WIFI吞吐量 Active performance: OTA performance (Total Radiated Power, Total isotropic Sensitivity), Throughput

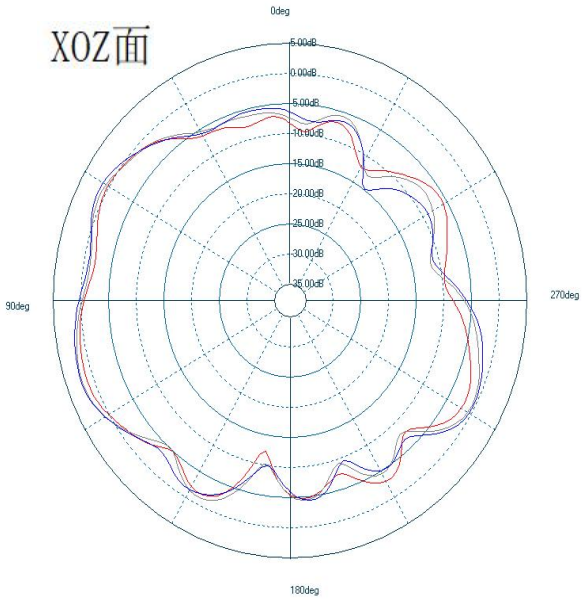
5.1 VSWR

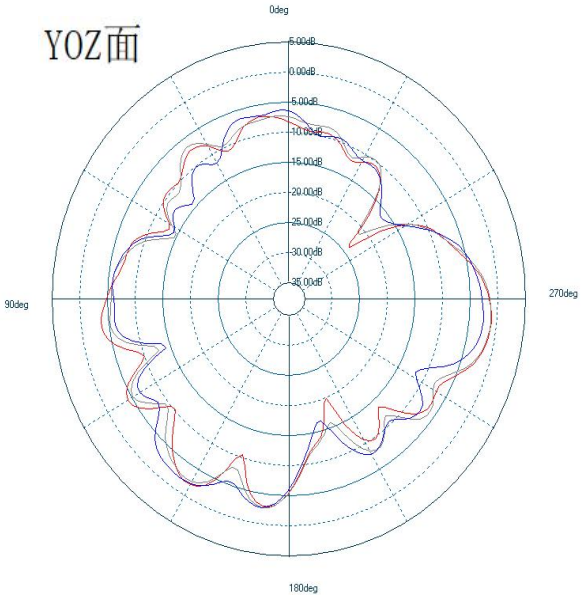


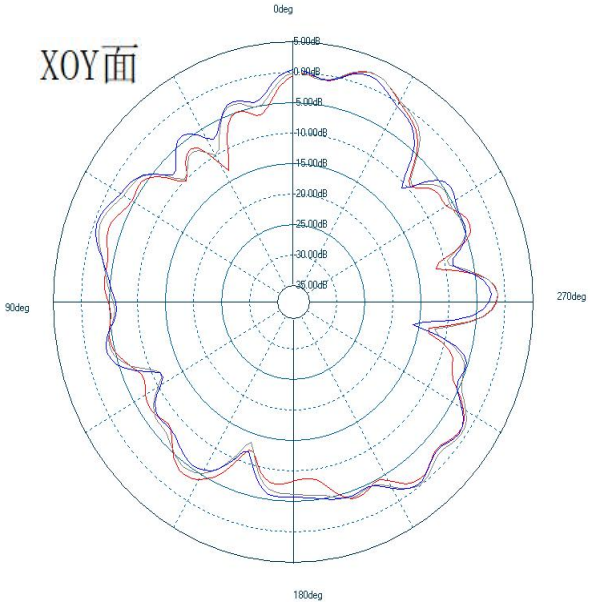
5.2 No-source test data

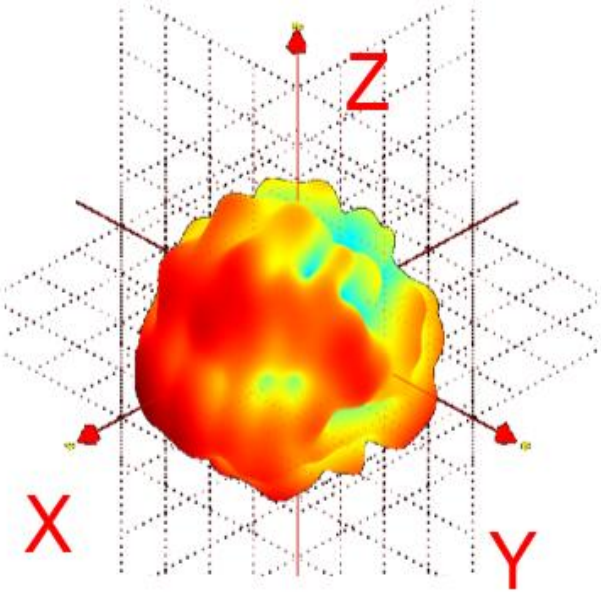
Frequency	Efficiency	Efficiency . dB	Gain . dB
2400	44%	-3.57	2.28
2410	46%	-3.36	2.03
2420	44%	-3.61	2.13
2430	44%	-3.53	2.27
2440	44%	-3.58	2.29
2450	46%	-3.37	2.15
2460	45%	-3.47	2.10
2470	46%	-3.37	1.56
2480	45%	-3.47	1.79
2490	43%	-3.67	1.75
2500	46%	-3.41	1.71

5.3 2D/3D Radiation Pattern Results









5.4 Environmental treatment