

RAIN

深圳市咏成国际科技有限公司
Shenzhen Yongcheng International
Technology Co., Ltd

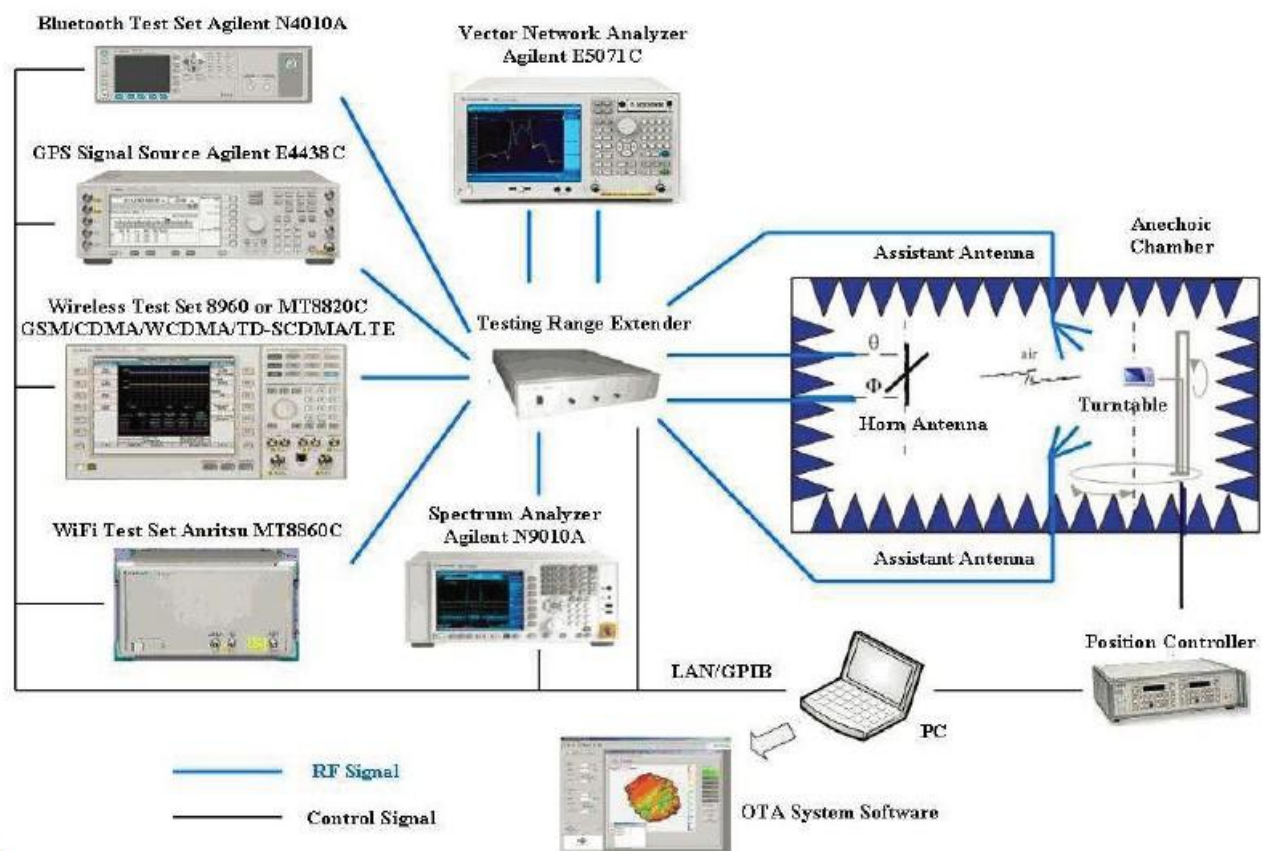
天线规格书
Antenna specification for approval

客户名称 Customer name			
机型 Model	Bluetooth		
天线频段 Antenna band	2.4GHZ		
天线类型 Antenna type	FPC Ant		
天线材质 Antenna material	FPC		
FPC 颜色 FPC color	Black		
料号 Material number			
厂商承认签章 Baren accepted the signature		客户承认签章 Client acknowledges signature	
结构 structure		采购 Purchase	
品质 QC		结构 structure	
射频 radio frequency		工程 engineering	
审核 To examine		品质 QC	
日期 date 2023.10.6	 盖章区 Seal area	日期 date 2023.10.6	 盖章区 Seal area

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一:Device support



二:Overview

(1)Antenna performance

1. This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of BT antenna.
2. Antenna shape size: Meet the requirement of MID
3. Antenna band: 2400MHz~2500MHz
4. Antenna material: Antenna material meet the requirement of MID
5. Adhesive performance: Adhesive performance meet the requirement of MID
6. Antenna performance meet the spec below:

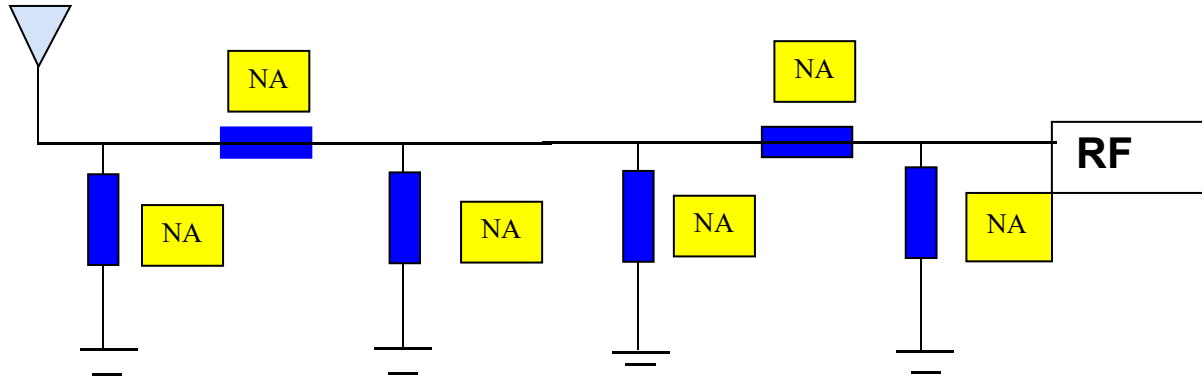
Description	2. 4GHZ~2. 5GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	≤ -1.3	dBi
Antenna Efficiency	≥ 40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

Mechanical Dimension	
Cable Length	NA
Description	BT antenna
Material	FPC
Coaxial Cable	NA
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

三: Matching circuit diagram & machine & antenna image

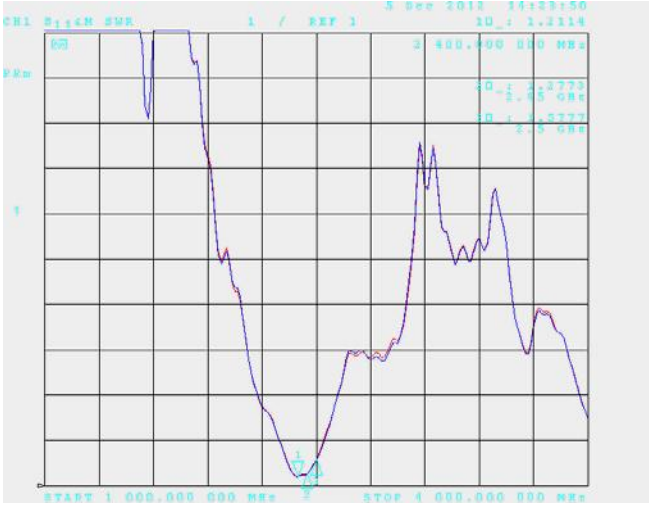
(1) Matching circuit diagram



(2) Machine & antenna image

1: Gold plating and sinking; 2: Black matte ink on the surface; 3: Complies with the latest environmental requirements: RoHS&REACH; 4: Whole board shipment;

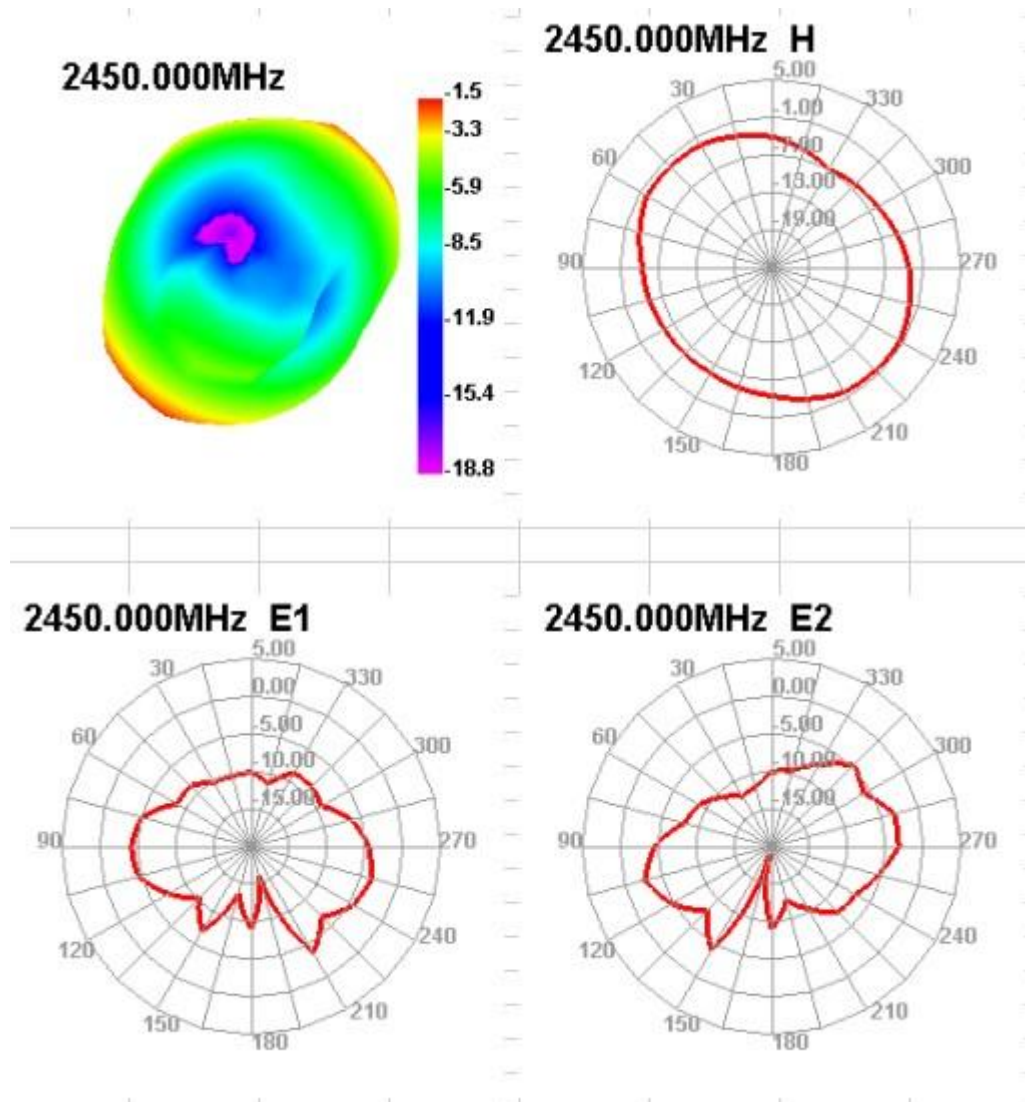
四:Antenna （VSWR）



Frequency (MHz)	VSWR
2400	1.25
2450	1.18
2500	1.16

Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	22.93	-6.4	-1.99	-4.14	9.57	13.363	-1.99	-18.81	48.83	49.05
2410	24.58	-6.09	-1.66	-3.81	10.321	14.257	-1.66	-18.99	49.12	49.31
2420	25.81	-5.88	-1.63	-3.78	10.894	14.918	-1.63	-18.92	49.47	49.54
2430	25.8	-5.88	-1.61	-3.76	10.97	14.826	-1.61	-18.74	49.45	49.53
2440	25.22	-5.98	-1.72	-3.87	10.72	14.5	-1.72	-18.82	49.47	49.59
2450	25.93	-5.86	-1.55	-3.7	11.093	14.836	-1.55	-18.83	49.56	49.63
2460	26.37	-5.79	-1.53	-3.68	11.328	15.047	-1.53	-18.67	49.75	49.92
2470	25.91	-5.87	-1.43	-3.58	11.279	14.63	-1.43	-18.94	49.79	50.03
2480	27.1	-5.67	-1.3	-3.45	11.806	15.295	-1.3	-20.52	49.89	50.07
2490	26.44	-5.78	-1.36	-3.51	11.542	14.894	-1.36	-21.66	49.81	50.01
2500	24.84	-6.05	-1.74	-3.89	10.82	14.018	-1.74	-21.76	49.76	49.92

五:3D pattern



六:Structural drawings

