

acknowledgement

SPECIFICATION FOR APPROVAL

Name: B T 2 . 4 G Hz
ItemNo: _____
Custoename: deep ditch between fields unite great
glad solid line of business have limit state-owned
take charge of Company stamp _____

Shenzhen lianhongxin Industrial Co., Ltd
Floor 5, building C, B8 Industrial Park, Baihua community, Guangming Street,
Shenzhen, Guangdong,China

drawing			Customer approve
MADE	CHECKED	AP PROVED	
QIU			
DATE: 2023. 4. 10			DATE

1 Specifications

The report mainly provides the antenna and test of various electrical performance parameters of Shenzhen LianHongxin Industrial Co., LTD. **antenna**

BT 2.4 / GHz PCB onboard antenna(As shown in Figure 1 below)

Figure 1 Appearance diagram of the PCB onboard antenna



Figure 2 BT stationary wave ratio / SMITH Fig

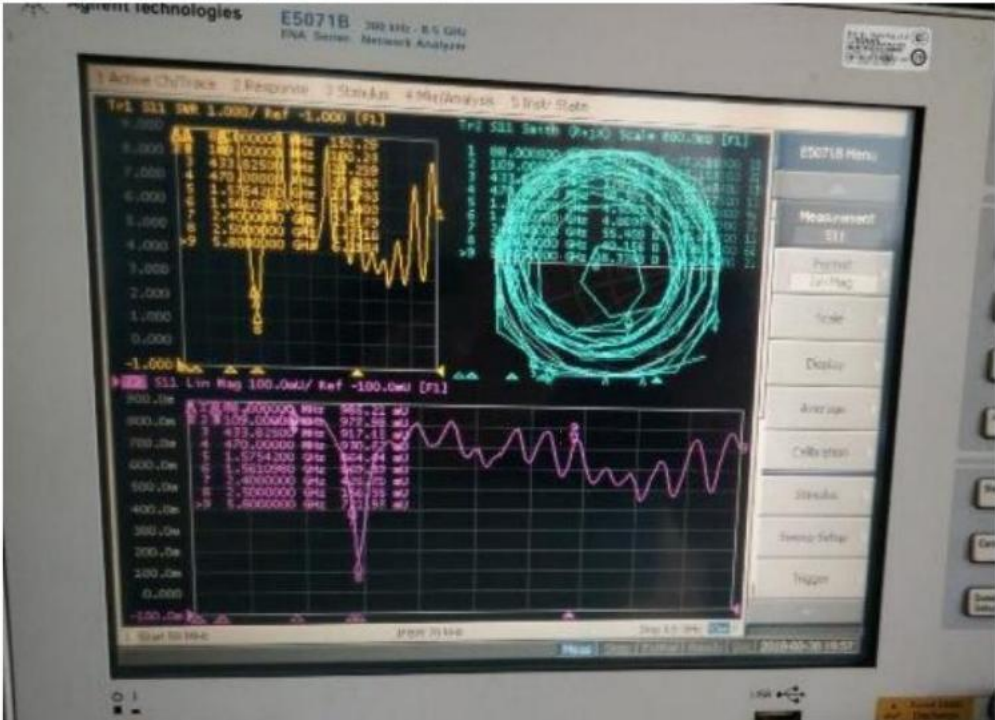


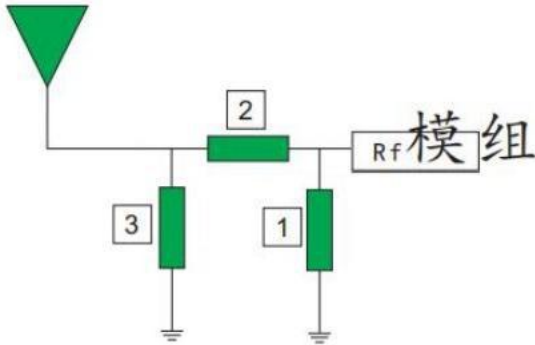
Figure 3 BT standing-wave ratio

frequency (MHz)	2400	2500			
V SWR	1.1	1.7			

2. Electrical appliance performance

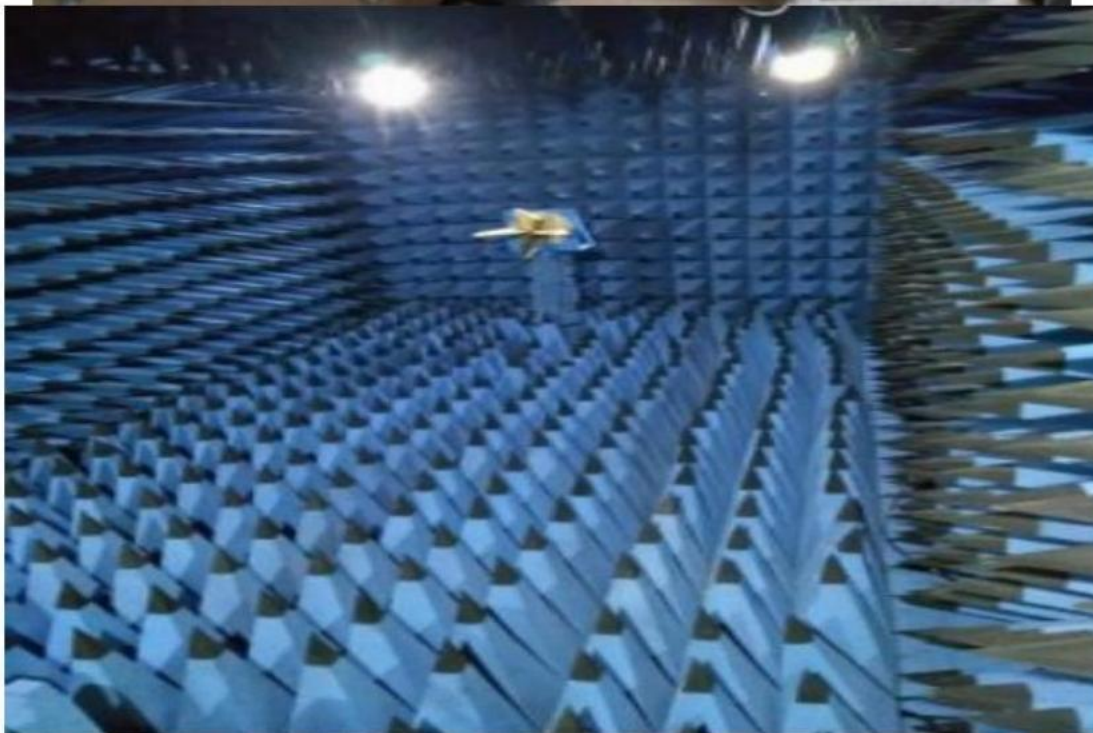
2.1 Matching circuit of the BT antenna

This item matching circuit is provided by the customer.



Component number	1	2	3	
BT the best	2.5PF	3NH	NC	
Original (backup)	50 Ohm match			

Figure 3 0 TA microwave dark chamber



2.3 Testing of bbi (VSWR)

2.3.1. Setting of the test

The VSWR test unit is connected in entially: AgilentE 5071B network analyzer
⑧ 50 ohm

Cable⑧ 120m m Long length

Copper tube ⑧ test and treatment equipment

Treatment of the test tool: lead the SMAJ with a hard cable from the antenna
50 ohm test point on the flat PCB

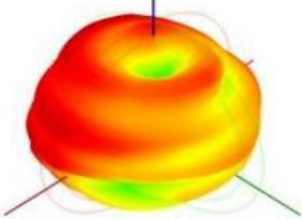
The joint, with the set has

Connect the copper pipe of the choke ring, and then connect the other devices
in turn.

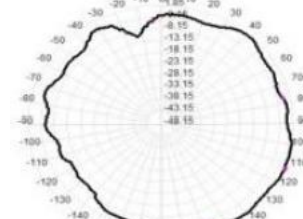
Figure 43 D effect gain diagram

FEITUKEJI											
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-2.16	-2.00	-1.91	-1.63	-1.73	-1.69	-1.55	-1.27	-1.54	-1.72	-1.83
Gain (dBi)	1.92	2.20	2.38	3.11	2.97	3.13	3.23	3.29	2.56	2.22	2.38
Efficiency (%)	60.79	63.03	64.48	68.74	67.12	67.72	70.06	74.67	70.12	67.23	65.55
Directivity (dB)	4.08	4.20	4.29	4.74	4.70	4.82	4.78	4.56	4.10	3.95	4.21
Peak Gain Position (Theta)	79.00	79.00	40.00	44.00	44.00	139.00	137.00	83.00	140.00	140.00	140.00
Peak Gain Position (Phi)	330.00	330.00	30.00	30.00	30.00	30.00	30.00	330.00	360.00	360.00	360.00
Efficiency ThetaPol (%)	46.42	47.51	48.72	51.70	50.50	51.25	52.44	55.54	52.09	49.87	48.68
Efficiency PhiPol (%)	14.37	15.52	15.76	17.04	16.62	16.48	17.62	19.13	18.03	17.36	16.87
Upper Hem. Efficiency (%)	31.95	32.81	33.10	34.94	34.05	34.58	36.33	39.45	37.43	35.90	34.75
Lower Hem. Efficiency (%)	28.83	30.22	31.38	33.80	33.07	33.14	33.73	35.22	32.69	31.33	30.80

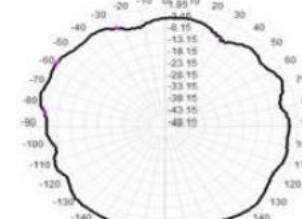
2400.0MHz HV,B+ 608%



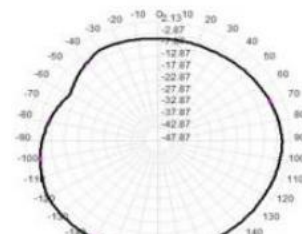
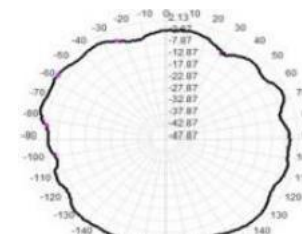
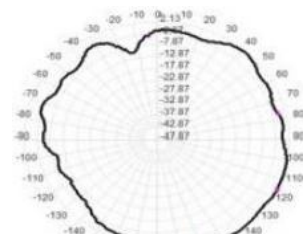
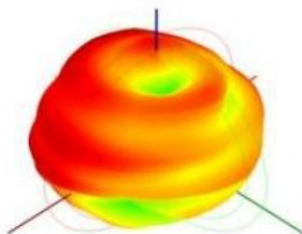
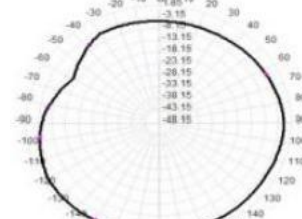
2400.0MHz Tota(EI),Max=1.8508



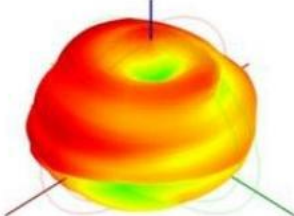
2400.0MHz Tota(E2),Max=-009



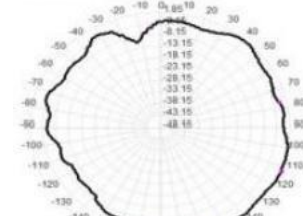
2400.0MHz TotaH,Max=-005dB



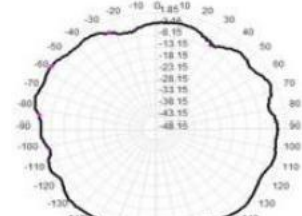
2402.0MHz HV,E:608%



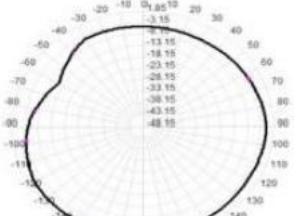
2402.0MHz Tota(E1),Max=1.85dB



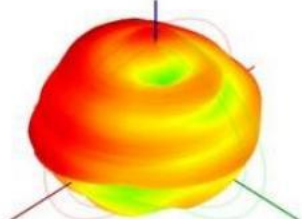
2402.0MHz Tota(E2),Max=-0.09d



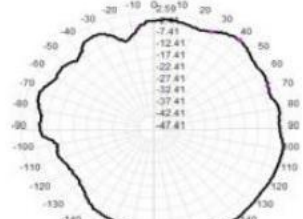
2402.0MHz TotaH,Max=-0.06d



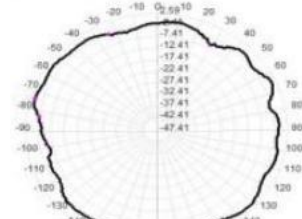
2441.0MHz HV,B1:608%



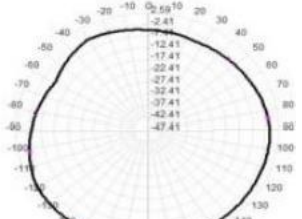
2441.0MHz Tota(E1),Max=1.85dB



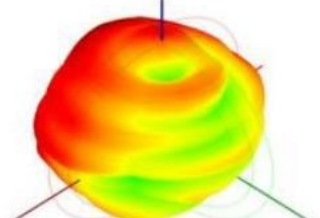
2441.0MHz Tota(E2),Max=-0.09d



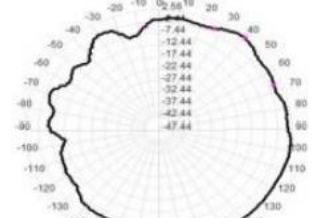
2441.0MHz TotaF,Max=-0.06dB



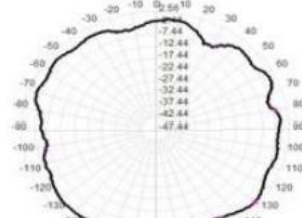
2470.0MHz HV,BH 74.7%



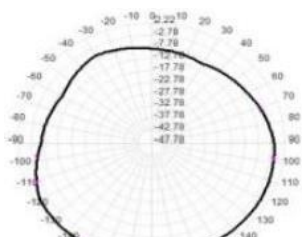
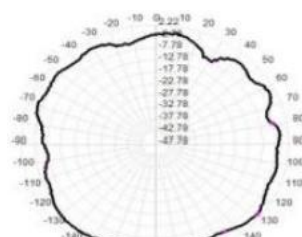
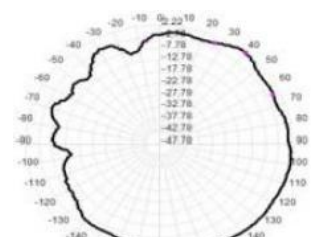
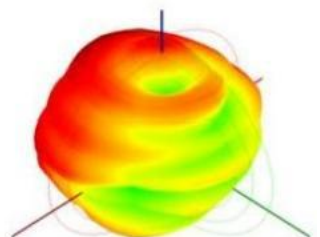
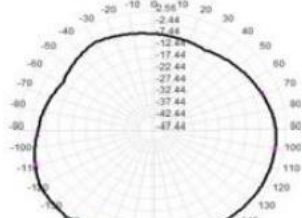
2470.0MHz Tota(E1),Max=3.07dB



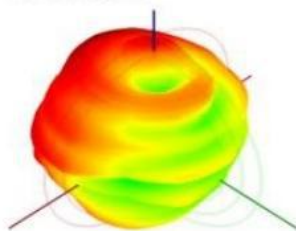
2470.0MHz Tota(E2),Max=1.15dB



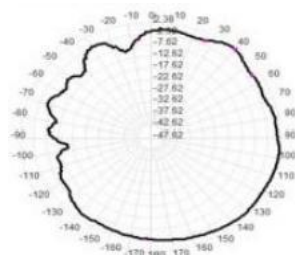
2470.0MHz TotaF0,Max=241dB



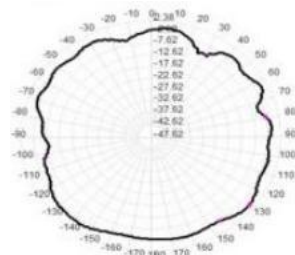
2480.0Me HeV,E:74.7%



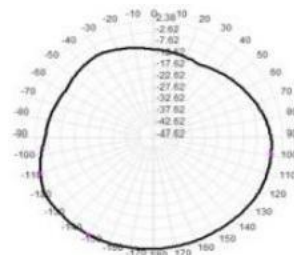
2480.0MHe Toa(E1),Max=3.0708i



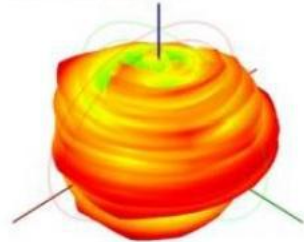
2480.0Me Tota(E2),Max1.1506i



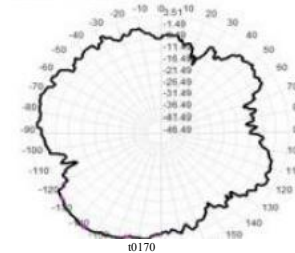
2480.0Mt Tota(H),Max =2.41dB



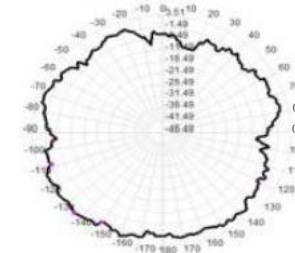
57400MH2 H+V,BT 65.4%



5740.0MHe Tota(E1) Mx=3658



57400MHeTttE).Ma=1.34



5740.0MHe Tota(H),MaX=0.21dB

