Antenna Specification

客户：client	/
项目名称：Project name	ZY01
物料类别：Materialclass	BT Antenna
版本：	V1.0
日期：	2021.12.27

目录catalogue

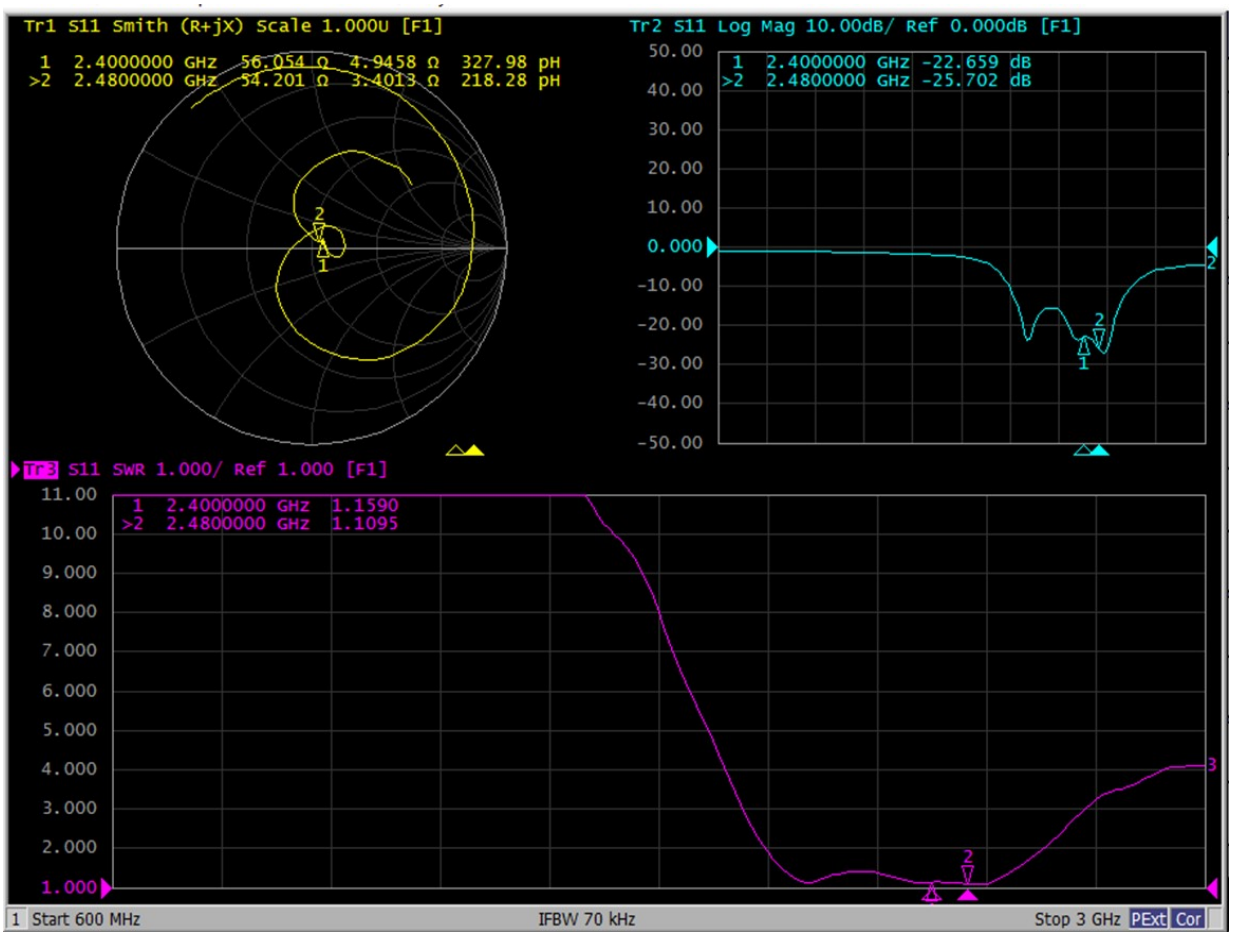
一：无源测试报告Source test report 3
二：BT 天线 3D暗室数据BT antenna 3D darkroom data 8
三：匹配电路Matching circuit..... 9
四：环境处理 Environmental treatment..... 9
五：结构图档Structure drawing file..... 10

变更记录栏			
编制/变更日期	变更理由	变更内容	版本
2021.12.27	初版发行	初版发行	V1.0

1: Passive test report

Angilent E5071C

Left ear BT antenna S11 parameters

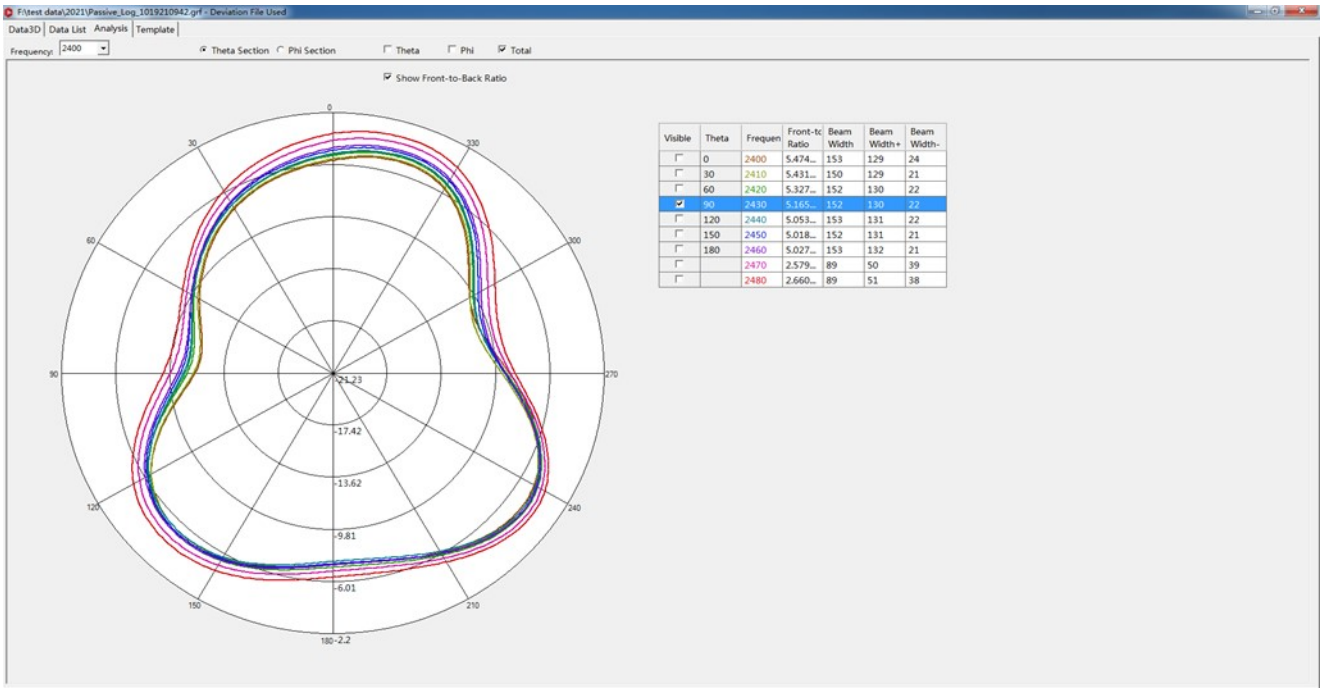


Left ear BT antenna efficiency and gain:

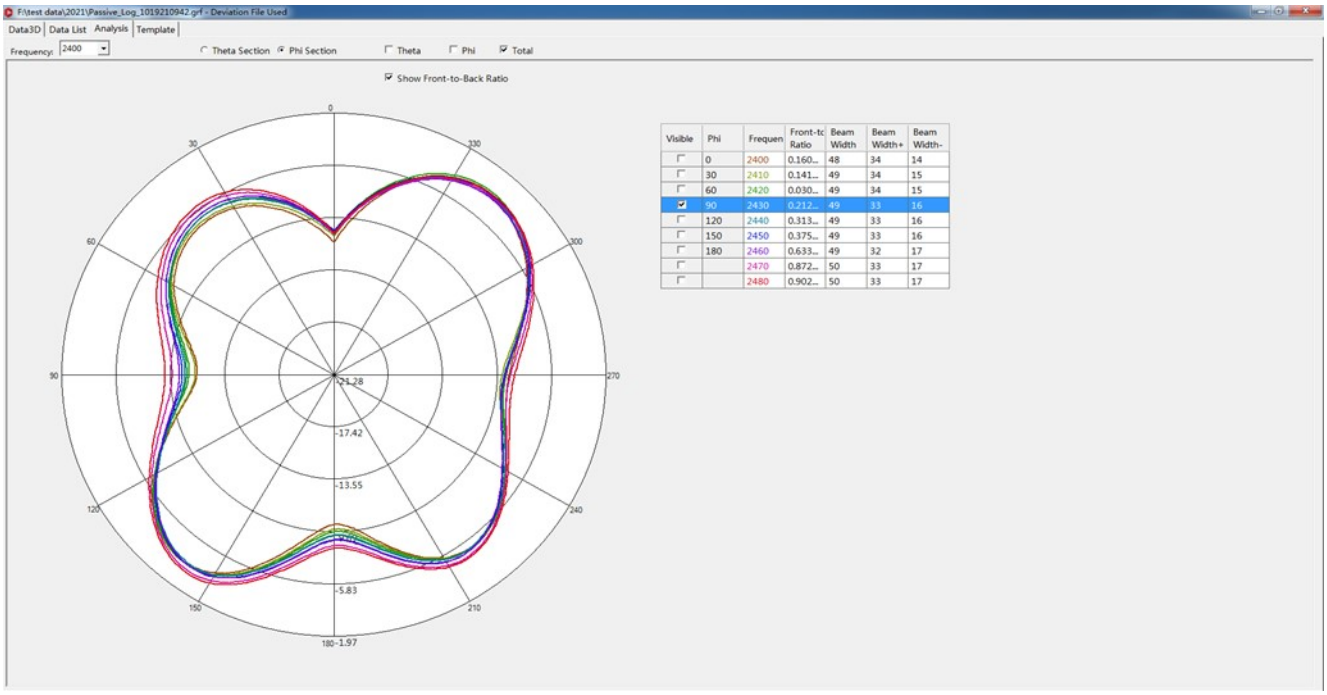
Left ear			
Frequency MHz	Efficiency%	Efficiency(dB)	Gain (dBi)
2400	24.7%	-6.1	-2.1
2410	24.9%	-6.0	-2.1
2420	26.6%	-5.8	-2.1
2430	27.0%	-5.7	-2.2
2440	28.2%	-5.5	-2.2
2450	28.4%	-5.5	-2.1
2460	29.0%	-5.4	-2.1
2470	29.3%	-5.3	-1.8
2480	28.0%	-5.5	-2.8
AV	27.3%	-5.6	-2.2

Left ear antenna passive direction diagram:

Theta=90.00deg

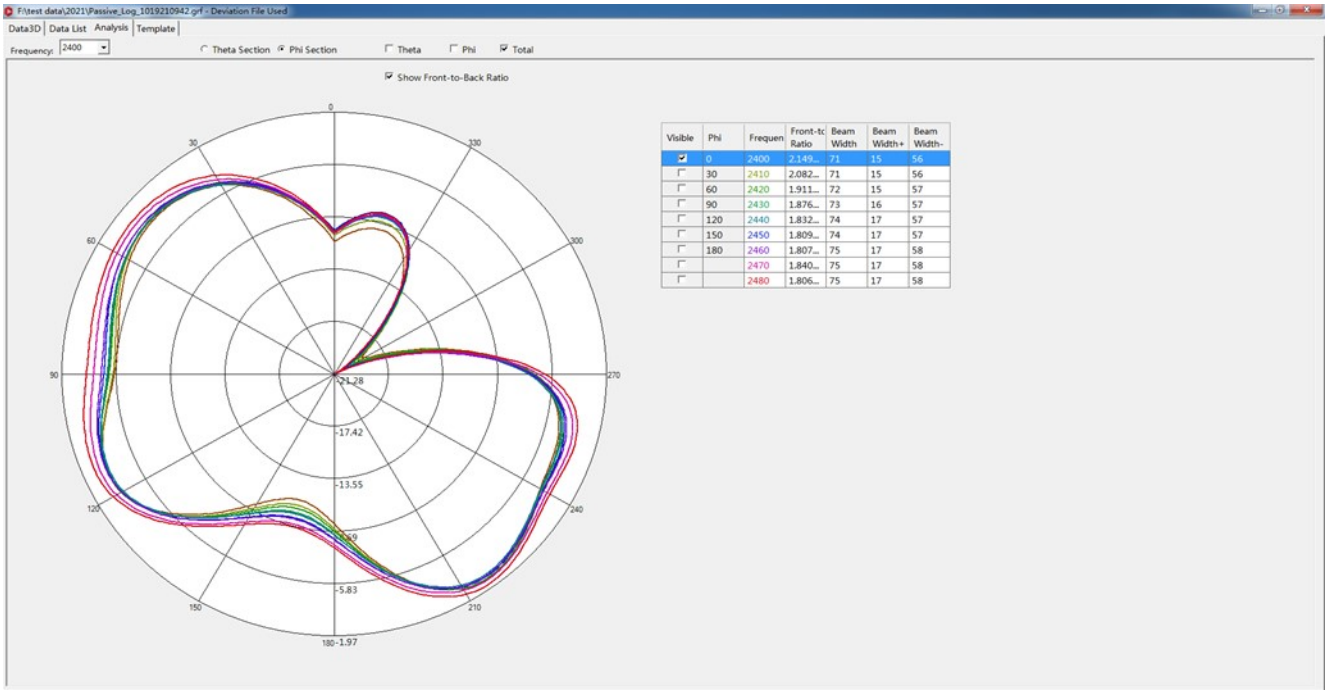


Phi=90.00deg



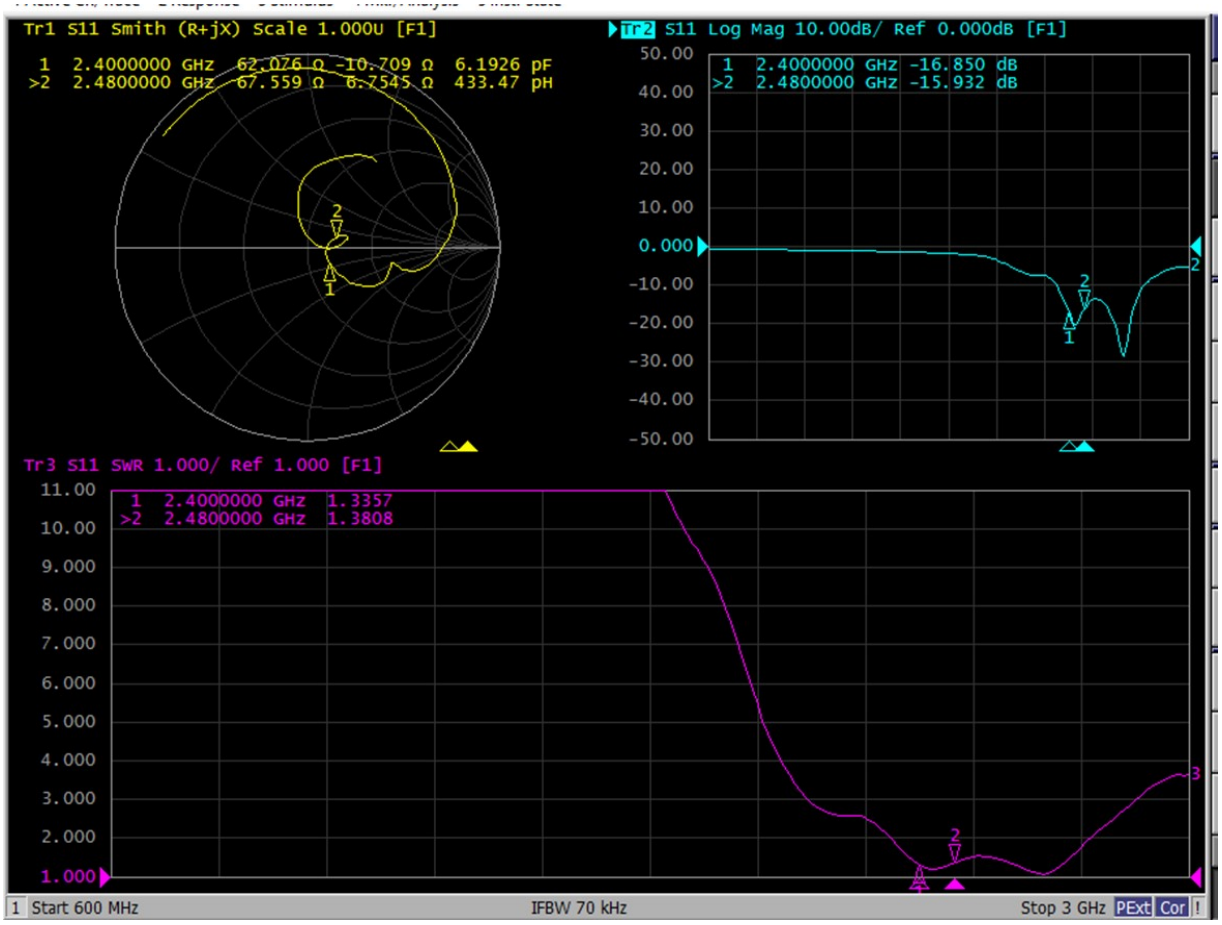
Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	0.160...	48	34	14
☐	30	2410	0.141...	49	34	15
☐	60	2420	0.030...	49	34	15
☑	90	2430	0.212...	49	33	16
☐	120	2440	0.313...	49	33	16
☐	150	2450	0.375...	49	33	16
☐	180	2460	0.633...	49	32	17
☐		2470	0.872...	50	33	17
☐		2480	0.902...	50	33	17

Phi=0.00deg



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☑	0	2400	2.149...	71	15	56
☐	30	2410	2.082...	71	15	56
☐	60	2420	1.911...	72	15	57
☐	90	2430	1.876...	73	16	57
☐	120	2440	1.832...	74	17	57
☐	150	2450	1.809...	74	17	57
☐	180	2460	1.807...	75	17	58
☐		2470	1.840...	75	17	58
☐		2480	1.806...	75	17	58

Right ear BT antenna S11 parameters

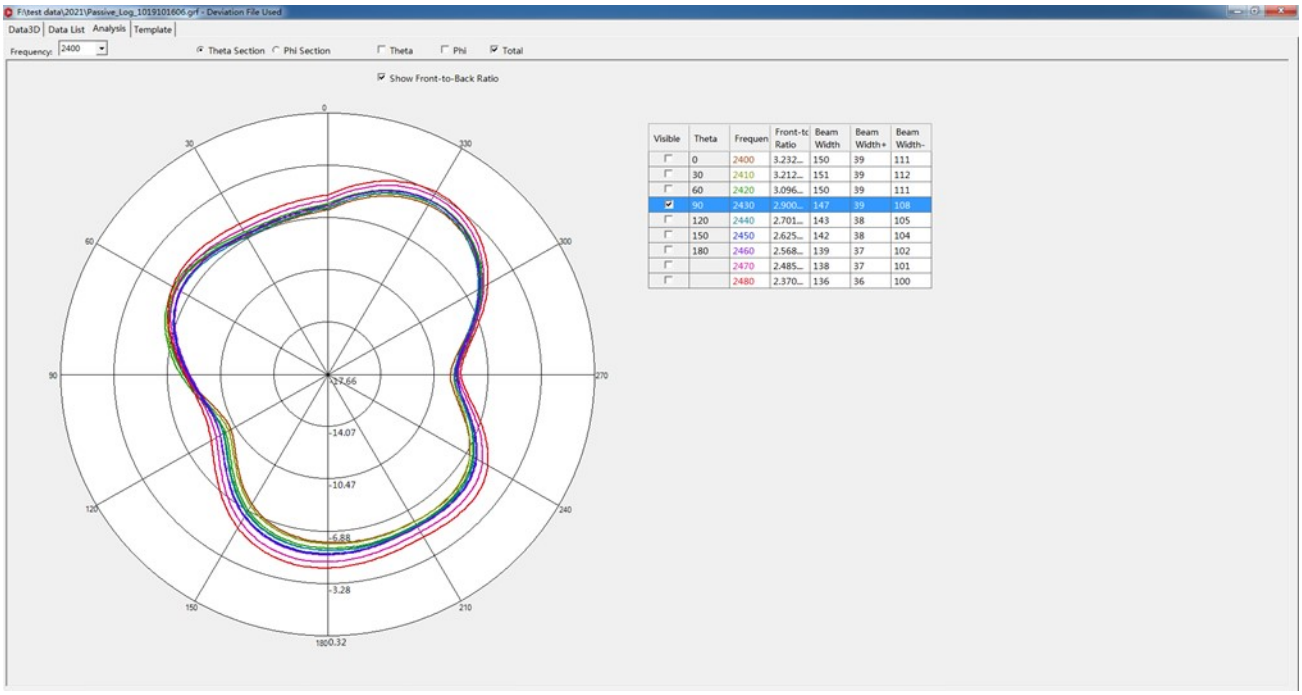


Efficiency and gain of right ear BT antenna:

A. d.			
Frequency MHz	Efficiency%	Efficiency(dB)	Gain (dBi)
2400	25.5%	-5.9	-0.9
2410	26.5%	-5.8	-0.7
2420	26.5%	-5.8	-0.6
2430	26.2%	-5.8	-0.7
2440	27.3%	-5.6	-0.8
2450	27.2%	-5.7	-0.7
2460	29.2%	-5.3	-0.7
2470	30.9%	-5.1	-0.5
2480	29.3%	-5.3	-0.5
AV	27.6%	-5.6	-0.7

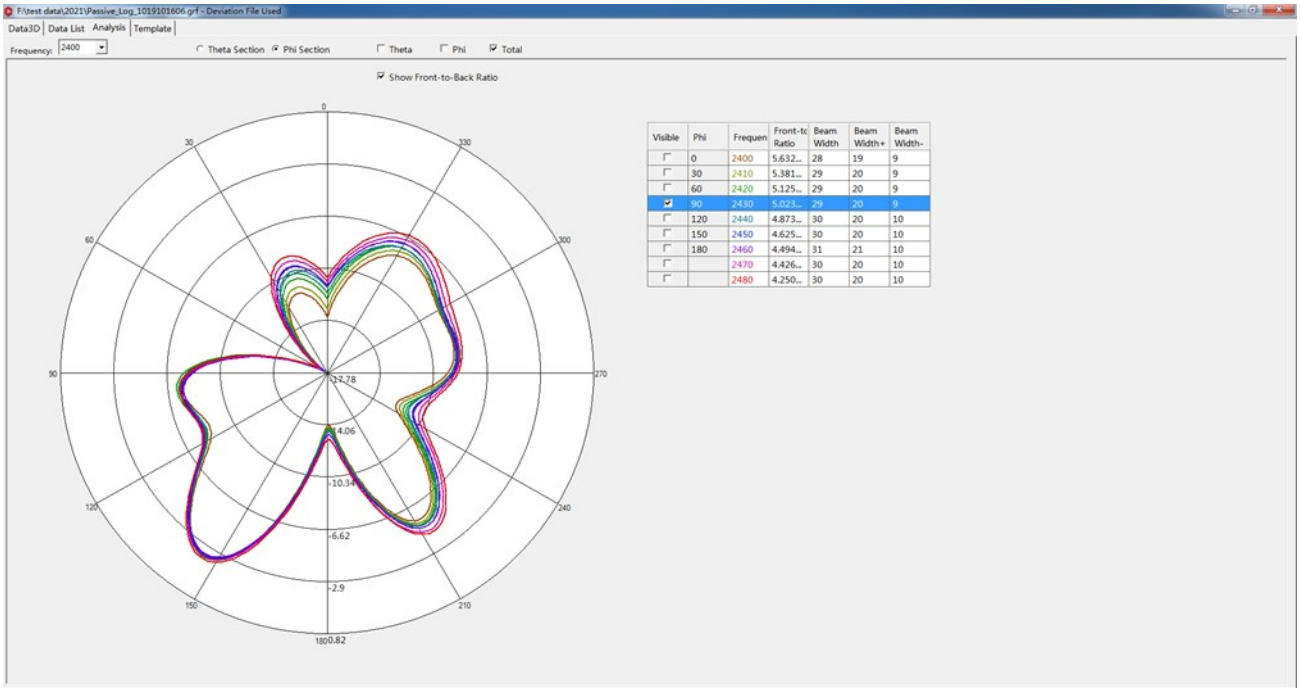
Left ear antenna passive direction diagram:

Theta=90.00deg



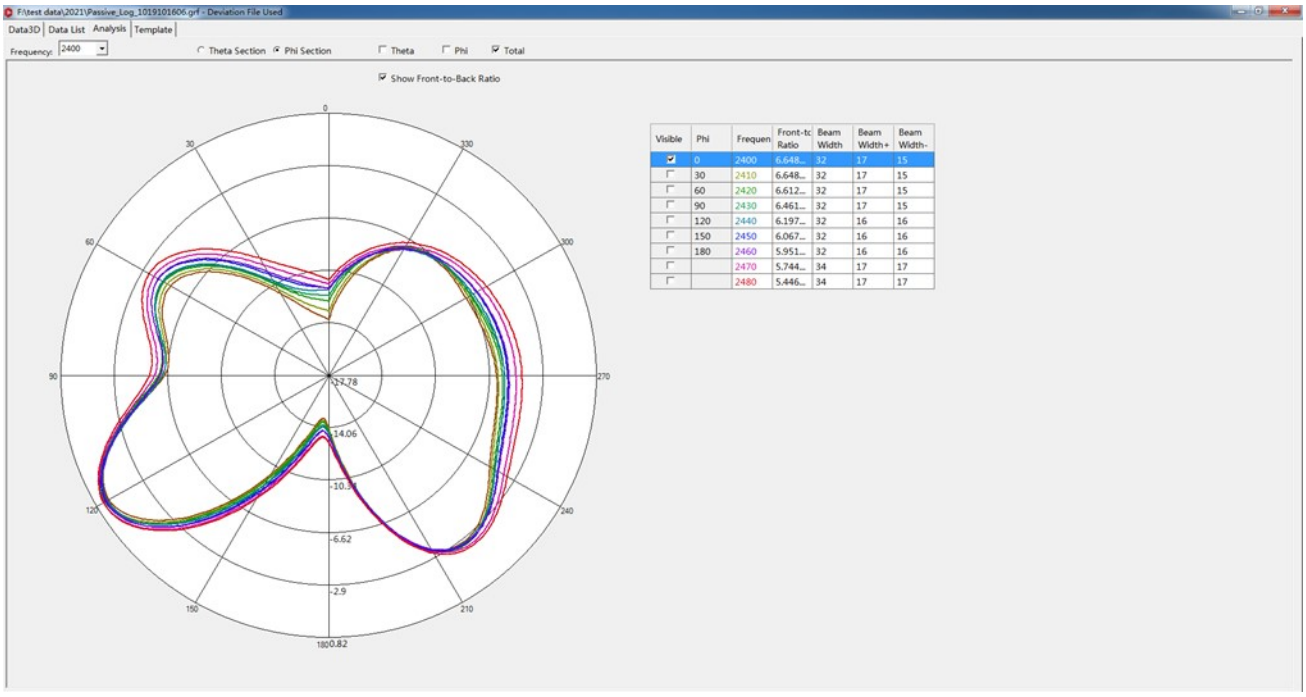
Visible	Theta	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	3.232...	150	39	111
☐	30	2410	3.212...	151	39	112
☐	60	2420	3.096...	150	39	111
☑	90	2430	2.900...	147	39	108
☐	120	2440	2.701...	143	38	105
☐	150	2450	2.625...	142	38	104
☐	180	2460	2.568...	139	37	102
☐		2470	2.485...	138	37	101
☐		2480	2.370...	136	36	100

Phi=90.00deg



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	5.632...	28	19	9
☐	30	2410	5.381...	29	20	9
☐	60	2420	5.125...	29	20	9
☑	90	2430	5.023...	29	20	9
☐	120	2440	4.873...	30	20	10
☐	150	2450	4.625...	30	20	10
☐	180	2460	4.494...	31	21	10
☐		2470	4.426...	30	20	10
☐		2480	4.250...	30	20	10

Phi=0.00deg



2: BT antenna 3D darkroom data

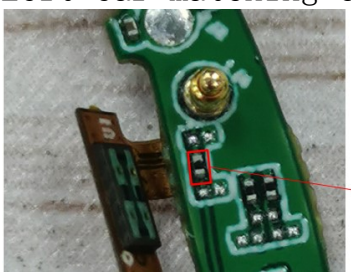
	Channel	TRP (dBm)	TIS (dBm)
L	CH 0	3.7	-86.8
	CH 39	4.5	-86.7
	CH 78	5.0	-86.9

	Channel	TRP (dBm)	TIS (dBm)
R	CH 0	4.0	-86.6
	CH 39	4.3	-86.6
	CH 78	4.4	-86.7

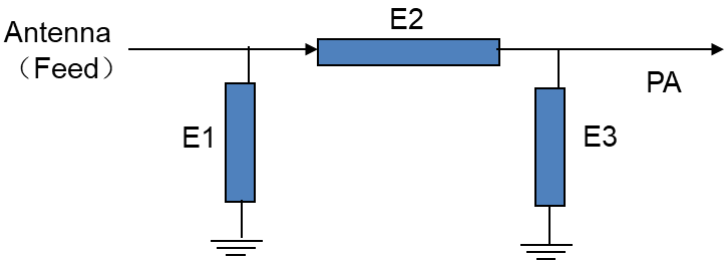
OTA Standard Chamber

3: Matching circuit

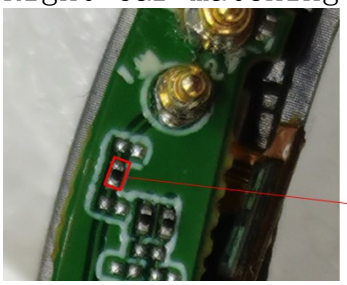
Left ear matching circuit:



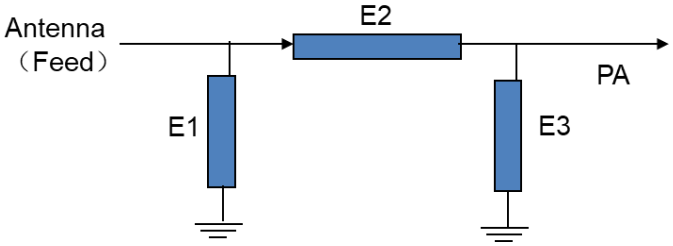
Element	Value
E3(0201)	N/A
E2(0201)	0Ω
E1(0201)	N/A



Right ear matching circuit:

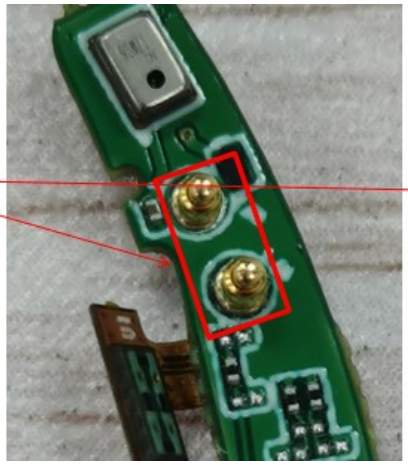


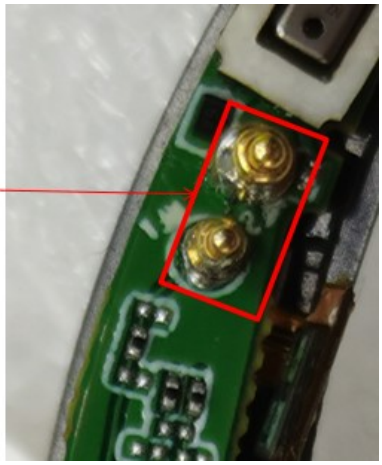
Element	Value
E3(0201)	N/A
E2(0201)	0Ω
E1(0201)	N/A



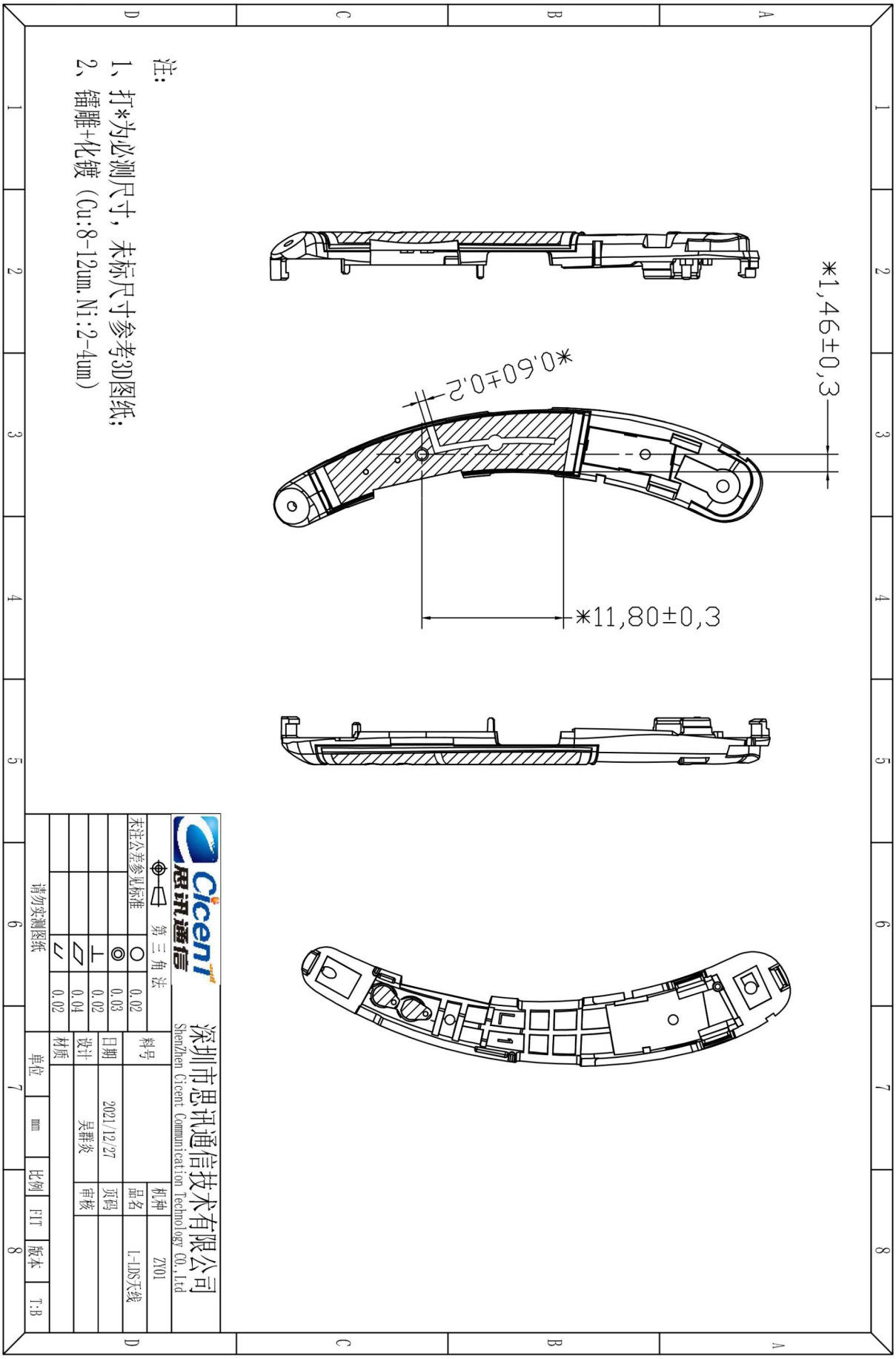
4. Environmental treatment

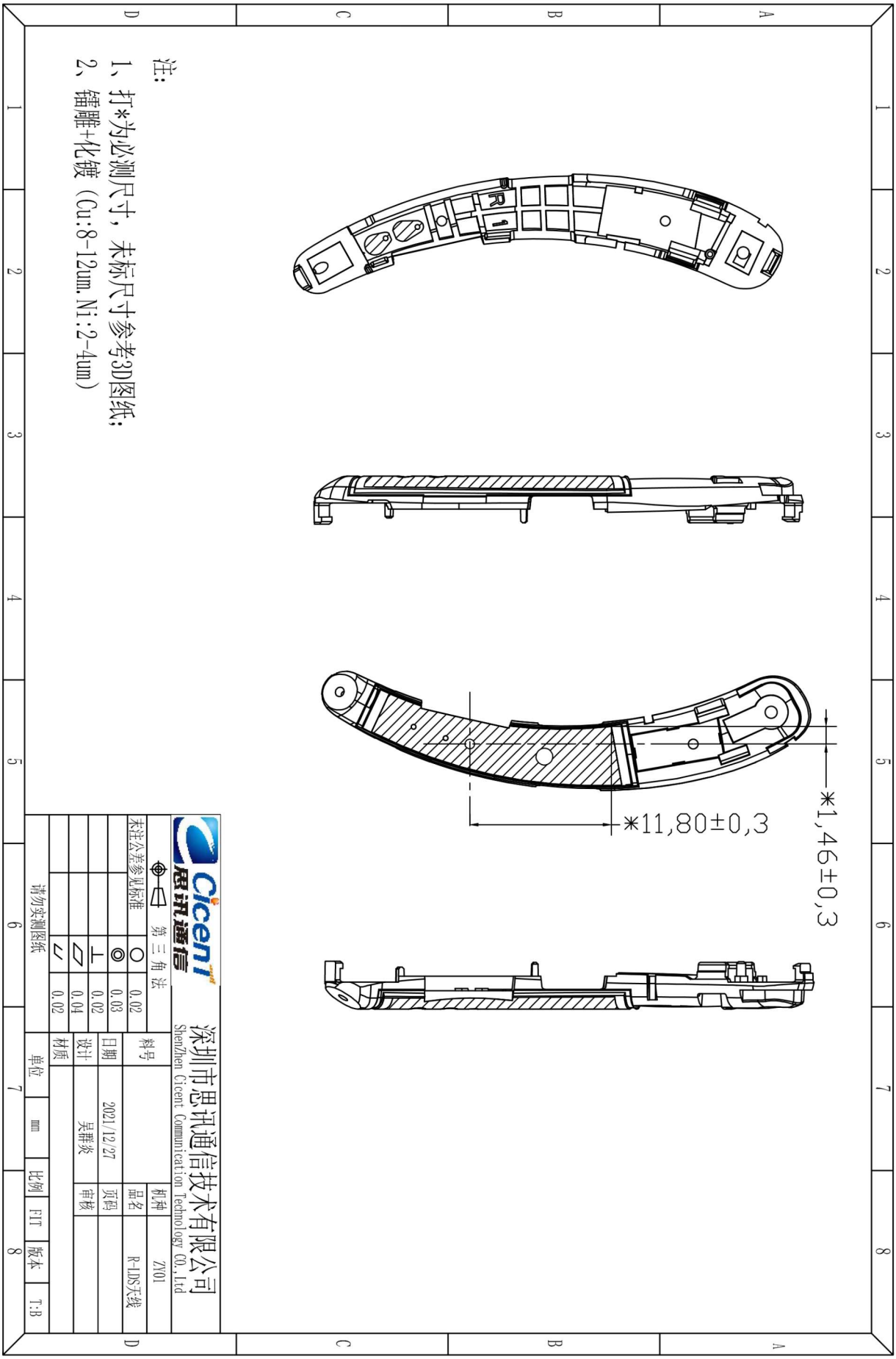
1、保持目前的各线长和装机方式；
2、目前调试的单极天线效率很低，
左右耳主板都需要加上地馈脚调试
PIFA形式的天线。





五：结构图档


*1,46±0,3
*0,60±0,2
*11,80±0,3
注:
1、打*为必测尺寸，未标尺寸参考3D图纸;
2、镭雕+化镀（Cu:8-12um.Ni:2-4um）
Cicent
思讯通信
深圳市思讯通信技术有限公司
ShenZhen Cicent Communication Technology CO.,Ltd
第三角法
未注公差参见标准
0.02
0.03
0.02
0.04
0.02
料号
日期
设计
材质
2021/12/27
吴群炎
机种
品名
页码
审核
ZY01
L-LDS天线
请勿实测图纸
单位
mm
比例
F:T
版本
T:B


R1
*1,46±0,3
*11,80±0,3
注:
1、打*为必测尺寸，未标尺寸参考3D图纸;
2、镭雕+化镀（Cu:8-12um,Ni:2-4um）
Cicent 思讯通信
深圳市思讯通信技术有限公司
ShenZhen Cicent Communication Technology CO.,Ltd
第三角法
未注公差参见标准
0.02
0.03
0.02
0.04
0.02
料号
日期
2021/12/27
设计
吴群炎
材质
机种
ZY01
品名
R-LDS天线
页码
审核
请勿实测图纸
单位
mm
比例
FIT
版本
T:B