

2.2.2 Antenna efficiency and Gain

Left			
Frequency	Eff (%)	Eff (db)	Gain (dbi)
2400	24%	-6.21	-2.11
2410	25%	-6.01	-1.98
2420	25%	-6.02	-1.88
2430	27%	-5.69	-1.78
2440	26%	-5.81	-1.87
2450	28%	-5.52	-1.80
2460	27%	-5.63	-2.01
2470	25%	-6.02	-2.10
2480	24%	-6.21	-1.85
2490	25%	-6.02	-2.10
2500	24%	-6.21	-2.32
Average	25.4%	-5.93	-1.98

Right			
Frequency	Eff (%)	Eff (db)	Gain (dbi)
2400	23%	-6.38	-2.20
2410	24%	-6.21	-2.17
2420	25%	-6.02	-1.89
2430	26%	-5.81	-1.80
2440	27%	-5.69	-1.78
2450	28%	-5.53	-1.65
2460	26%	-5.85	-1.75
2470	26%	-5.85	-2.01
2480	24%	-6.20	-2.10
2490	23%	-6.38	-2.23
2500	23%	-6.38	-2.31
Average	25.0%	-5.49	-1.97

2.2.3 Antenna OTA

Free space	Channel	TRP (dBm)	TIS (dBm)
L	0	3.65	-88.69
	39	3.74	-88.74
	78	3.42	-87.92

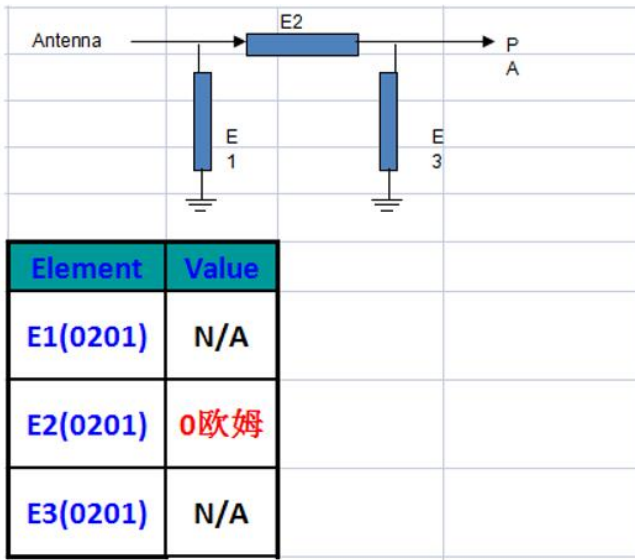
Free space	Channel	TRP (dBm)	TIS (dBm)
R	0	3.78	-88.69
	39	3.84	-89.10
	78	3.51	-88.47

Head Model	Channel	TRP (dBm)	TIS (dBm)
L	0	-2.35	-82.10
	39	-2.54	-82.41
	78	-2.65	-81.78

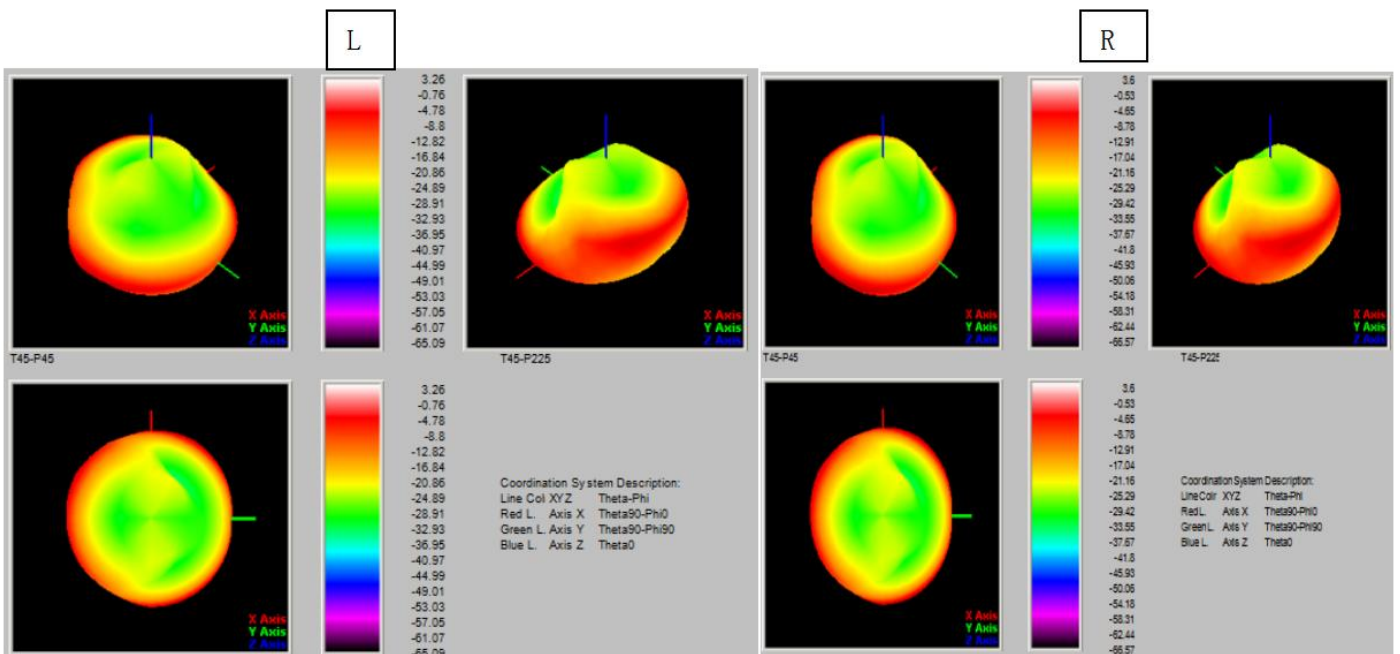
Head Model	Channel	TRP (dBm)	TIS (dBm)
R	0	-2.58	-82.21
	39	-2.85	-82.10
	78	-2.78	-82.36

2.2.4 Left and right ear matching

The left and right ears match equally, as shown below



2.2.5 3D Field-type diagram



3. Structural drawings

3.1 Right headphone drawings

由 Autodesk 教育版产品制作		A																																																			
skills requirement:	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>PI substrate:</td><td>0.5mm</td></tr> <tr><td>Electrolytic copper:</td><td>0.5oz(20)</td></tr> <tr><td>Double-sided tape:</td><td>3M-9471LSE</td></tr> <tr><td>Nickel plated:</td><td>38um</td></tr> <tr><td>Electroplating specifications:</td><td>Gl1deh: 0.025mm</td></tr> <tr><td>Surface ink color:</td><td>Mat black</td></tr> <tr><td>Printing font color:</td><td>Bright black</td></tr> <tr><td>Printing font height:</td><td>According to drawings</td></tr> </table>	PI substrate:	0.5mm	Electrolytic copper:	0.5oz(20)	Double-sided tape:	3M-9471LSE	Nickel plated:	38um	Electroplating specifications:	Gl1deh: 0.025mm	Surface ink color:	Mat black	Printing font color:	Bright black	Printing font height:	According to drawings																																				
PI substrate:	0.5mm																																																				
Electrolytic copper:	0.5oz(20)																																																				
Double-sided tape:	3M-9471LSE																																																				
Nickel plated:	38um																																																				
Electroplating specifications:	Gl1deh: 0.025mm																																																				
Surface ink color:	Mat black																																																				
Printing font color:	Bright black																																																				
Printing font height:	According to drawings																																																				
4. Reliability requirements:	<p>1. Reliability test: salt spray test\rubber friction test\alcohol resistance test\100 grid test</p> <p>2. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc.</p>																																																				
5. Tolerance requirements:	<p>1. Shape tolerance ±0.10;</p> <p>2. Copper foil circuit tolerance ±0.05;</p> <p>3. The position of the copper foil to the shape is ±0.15;</p> <p>4. Hole-to-hole position tolerance ±0.10; hole-to-slope position tolerance ±0.15;</p> <p>5. The size tolerance of gold finger is ±0.20.</p> <p>6. For other unmarked dimensions, refer to 2D drawings.</p>	<p style="text-align: center;">ShenZhen Yu Sheng Communication Equipment Co., Ltd</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">Model</td> <td style="text-align: center;">2181b</td> <td style="text-align: center;">DATE</td> <td style="text-align: center;">20230206</td> <td style="text-align: center;">Model</td> <td style="text-align: center;">R-BT-FPC</td> <td style="text-align: center;">Design</td> <td style="text-align: center;">JFB</td> <td style="text-align: center;">Material quality</td> <td style="text-align: center;">Electrolytic copper (half to half)</td> </tr> <tr> <td style="text-align: center;">Name</td> <td style="text-align: center;">R-BT-FPC</td> <td style="text-align: center;">Part NO</td> <td style="text-align: center;">336024-1A</td> <td style="text-align: center;">Review</td> <td style="text-align: center;">RP</td> <td style="text-align: center;">Material quality</td> <td style="text-align: center;">Electrolytic copper (half to half)</td> <td style="text-align: center;">Appearance treatment</td> <td style="text-align: center;">NIT</td> </tr> <tr> <td style="text-align: center;">Hole-to-hole position tolerance</td> <td style="text-align: center;">±0.10</td> <td style="text-align: center;">Hole-to-slope position tolerance</td> <td style="text-align: center;">±0.15</td> <td style="text-align: center;">Surface roughness</td> <td style="text-align: center;">0.02</td> <td style="text-align: center;">Surface roughness</td> <td style="text-align: center;">0.04</td> <td style="text-align: center;">Surface roughness</td> <td style="text-align: center;">0.02</td> </tr> <tr> <td style="text-align: center;">Shape tolerance</td> <td style="text-align: center;">±0.10</td> <td style="text-align: center;">Copper foil circuit tolerance</td> <td style="text-align: center;">±0.05</td> <td style="text-align: center;">Copper foil to shape position tolerance</td> <td style="text-align: center;">±0.15</td> <td style="text-align: center;">Copper foil to shape position tolerance</td> <td style="text-align: center;">±0.15</td> <td style="text-align: center;">Copper foil to shape position tolerance</td> <td style="text-align: center;">±0.20</td> </tr> </table>												Model	2181b	DATE	20230206	Model	R-BT-FPC	Design	JFB	Material quality	Electrolytic copper (half to half)	Name	R-BT-FPC	Part NO	336024-1A	Review	RP	Material quality	Electrolytic copper (half to half)	Appearance treatment	NIT	Hole-to-hole position tolerance	±0.10	Hole-to-slope position tolerance	±0.15	Surface roughness	0.02	Surface roughness	0.04	Surface roughness	0.02	Shape tolerance	±0.10	Copper foil circuit tolerance	±0.05	Copper foil to shape position tolerance	±0.15	Copper foil to shape position tolerance	±0.15	Copper foil to shape position tolerance	±0.20
Model	2181b	DATE	20230206	Model	R-BT-FPC	Design	JFB	Material quality	Electrolytic copper (half to half)																																												
Name	R-BT-FPC	Part NO	336024-1A	Review	RP	Material quality	Electrolytic copper (half to half)	Appearance treatment	NIT																																												
Hole-to-hole position tolerance	±0.10	Hole-to-slope position tolerance	±0.15	Surface roughness	0.02	Surface roughness	0.04	Surface roughness	0.02																																												
Shape tolerance	±0.10	Copper foil circuit tolerance	±0.05	Copper foil to shape position tolerance	±0.15	Copper foil to shape position tolerance	±0.15	Copper foil to shape position tolerance	±0.20																																												
6. Key control size:	The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings																																																				
7. Environmental requirements:	Parts meet ROHS2.0/REACH/GP environmental protection requirements																																																				
8. Packaging requirements:	Packed in PE bags, the quantity of each bag is 10PCS, there is a mark on the outside of the bag																																																				
DATE	Modify the content	Version	Revise																																																		
1	2	3	4																																																		
5																																																					
6																																																					
7																																																					
8																																																					

■ Gold plated Area

3.2 Left headphone drawings

由 Autodesk 教育版产品制作		A																																																																																																					
<p>skills requirement:</p> <p>1.PPC substrate specifications:</p> <p>2.Electroplating specifications:</p> <p>3.Surface ink requirements:</p> <p>4.Reliability requirements:</p> <p>5.Tolerance requirements:</p> <p>6.Key control sizes:</p> <p>7.Environmental requirements:</p> <p>8.Packaging requirements:</p>	<p>PI substrate: 0.5mm</p> <p>Electrolytic copper: 0.5oz(2D)</p> <p>Double-sided tape: 3M-9471ISE</p> <p>Nickel plated: 38um</p> <p>Surface ink color: G11de4: 0.025um</p> <p>Printing font color: Matt black</p> <p>Printing font height: According to drawings</p> <p>1. Reliability test: salt spray test\rubber friction test\alcohol resistance test\100 grid test.</p> <p>2. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc.</p> <p>1. Shape tolerance ± 0.10;</p> <p>2. Copper foil circuit tolerance ± 0.05;</p> <p>3. The position of the copper foil to the shape is ± 0.15;</p> <p>4. Hole-to-hole position tolerance ± 0.10; hole-to-slope position tolerance ± 0.15;</p> <p>5. The size tolerance of gold finger is ± 0.20;</p> <p>6. For other unmarked dimensions, refer to 2D drawings.</p>																																																																																																						
<p>The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings</p>		<p>3M Area</p> <p>Gold plated Area</p>																																																																																																					
<p>DATE</p> <p>1</p>	<p>Modify the content</p> <p>2</p>	<p>Version</p> <p>3</p>	<p>Revise</p> <p>4</p>																																																																																																				
<p>Shenzhen Yu Sheng Communication Equipment Co., Ltd.</p>																																																																																																							
		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>0.10</td> <td>± 0.10</td> <td>\bigcirc</td> <td>0.02</td> <td>\bigcirc</td> <td>0.02</td> <td>Model</td> <td>2161b</td> <td>DATE</td> <td>20230206</td> </tr> <tr> <td>10.20</td> <td>± 0.12</td> <td>\odot</td> <td>0.03</td> <td>\odot</td> <td>0.03</td> <td>Name</td> <td>1-PPC</td> <td>Design</td> <td>JFB</td> </tr> <tr> <td>20.40</td> <td>± 0.15</td> <td>\perp</td> <td>0.02</td> <td>\perp</td> <td>0.02</td> <td>Part NO</td> <td>336024-1B</td> <td>Review</td> <td>JFB</td> </tr> <tr> <td>40.50</td> <td>± 0.20</td> <td>∇</td> <td>0.04</td> <td>∇</td> <td>0.04</td> <td>Material quality</td> <td>Electrolytic copper (half to half)</td> <td>MD</td> <td>CKH</td> </tr> <tr> <td></td> <td></td> <td>\sphericalangle</td> <td>0.02</td> <td>\sphericalangle</td> <td>0.02</td> <td>Gold surface treatment</td> <td></td> <td>confirm</td> <td></td> </tr> <tr> <td></td> <td></td> <td>位置</td> <td></td> <td></td> <td></td> <td>Appearance treatment</td> <td></td> <td>UNIT</td> <td>mm</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>production</td> <td>PJT</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Revise</td> <td>R.A</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8</td> </tr> </table>												0.10	± 0.10	\bigcirc	0.02	\bigcirc	0.02	Model	2161b	DATE	20230206	10.20	± 0.12	\odot	0.03	\odot	0.03	Name	1-PPC	Design	JFB	20.40	± 0.15	\perp	0.02	\perp	0.02	Part NO	336024-1B	Review	JFB	40.50	± 0.20	∇	0.04	∇	0.04	Material quality	Electrolytic copper (half to half)	MD	CKH			\sphericalangle	0.02	\sphericalangle	0.02	Gold surface treatment		confirm				位置				Appearance treatment		UNIT	mm									production	PJT									Revise	R.A										8
0.10	± 0.10	\bigcirc	0.02	\bigcirc	0.02	Model	2161b	DATE	20230206																																																																																														
10.20	± 0.12	\odot	0.03	\odot	0.03	Name	1-PPC	Design	JFB																																																																																														
20.40	± 0.15	\perp	0.02	\perp	0.02	Part NO	336024-1B	Review	JFB																																																																																														
40.50	± 0.20	∇	0.04	∇	0.04	Material quality	Electrolytic copper (half to half)	MD	CKH																																																																																														
		\sphericalangle	0.02	\sphericalangle	0.02	Gold surface treatment		confirm																																																																																															
		位置				Appearance treatment		UNIT	mm																																																																																														
								production	PJT																																																																																														
								Revise	R.A																																																																																														
									8																																																																																														