

## 2.4 OTA Data

### 2.4.1 Free space -L

|   | Channel | TRP (dBm) | TIS (dBm) |
|---|---------|-----------|-----------|
| L | 0       | 3.6       | -88.4     |
|   | 39      | 4.0       | -88.5     |
|   | 78      | 4.2       | -88.3     |

### 2.4.2 Free Space -R

|   | Channel | TRP (dBm) | TIS (dBm) |
|---|---------|-----------|-----------|
| R | 0       | 3.5       | -87.9     |
|   | 39      | 3.9       | -88.2     |
|   | 78      | 4.0       | -88.0     |

### 2.4.3 Head module data -L

|   | Channel | TRP (dBm) | TIS (dBm) |
|---|---------|-----------|-----------|
| L | 0       | 0.4       | -84.2     |
|   | 39      | 0.5       | -84.4     |
|   | 78      | 0.2       | -84.1     |

### 2.4.4 Head module data -R

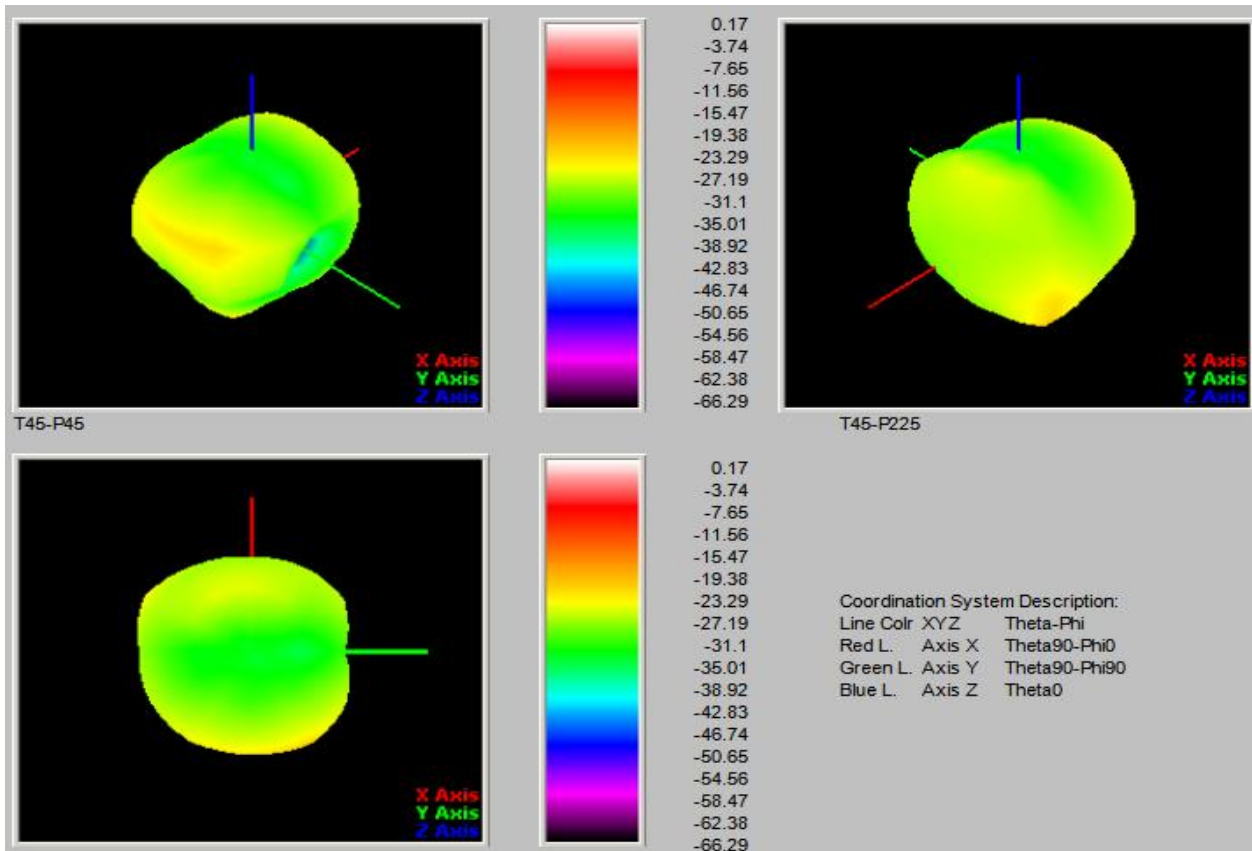
|   | Channel | TRP (dBm) | TIS (dBm) |
|---|---------|-----------|-----------|
| R | 0       | 0.2       | -84.3     |
|   | 39      | 0.4       | -84.5     |
|   | 78      | 0.3       | -84.3     |

| Frequency | efficiency | efficiency (dB) | Gain(dBi) | Frequency  | efficiency | efficiency (dB) | Gain(dBi) |
|-----------|------------|-----------------|-----------|------------|------------|-----------------|-----------|
| 2400      | 23.5%      | <b>-6.18</b>    | -2.05     | 2400       | 9.2%       | <b>-6.28</b>    | -2.19     |
| 2410      | 24.1%      | <b>-6.09</b>    | -2.02     | 2410       | 9.6%       | <b>-6.19</b>    | -2.11     |
| 2420      | 24.6%      | <b>-5.97</b>    | -1.95     | 2420       | 10.1%      | <b>-6.05</b>    | -2.03     |
| 2430      | 25.2%      | <b>-5.86</b>    | -1.73     | 2430       | 10.7%      | <b>-5.97</b>    | -1.95     |
| 2440      | 25.7%      | <b>-5.71</b>    | -1.52     | 2440       | 11.5%      | <b>-5.83</b>    | -1.81     |
| 2450      | 26.2%      | <b>-5.65</b>    | -1.41     | 2450       | 12.3%      | <b>-5.74</b>    | -1.70     |
| 2460      | 25.6%      | <b>-5.69</b>    | -1.54     | 2460       | 11.7%      | <b>-5.81</b>    | -1.79     |
| 2470      | 25.2%      | <b>-5.85</b>    | -1.72     | 2470       | 11.2%      | <b>-5.88</b>    | -1.86     |
| 2480      | 24.7%      | <b>-5.94</b>    | -1.92     | 2480       | 10.6%      | <b>-5.99</b>    | -1.97     |
| free-L    |            |                 |           | Head ear-L |            |                 |           |

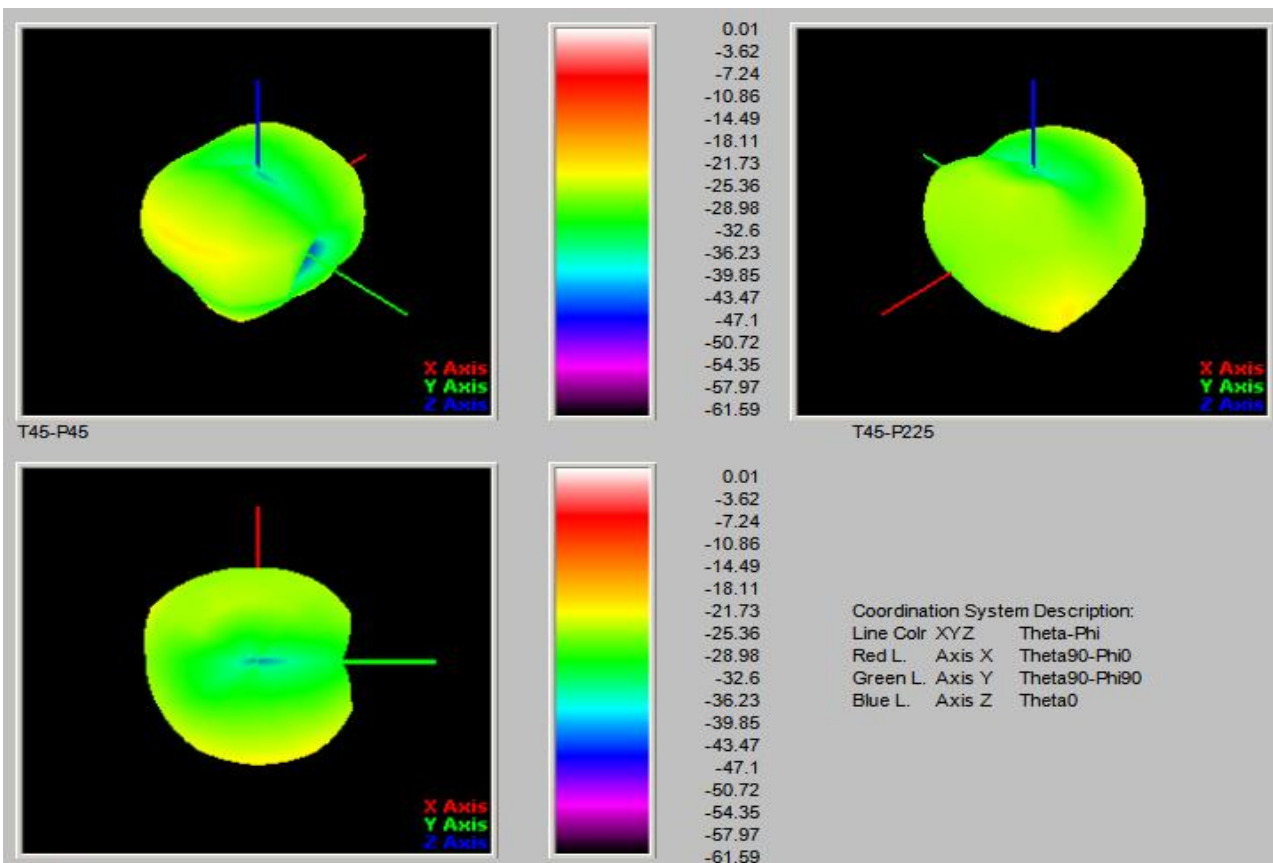
| Frequency | efficiency | efficiency (dB) | Gain(dBi) | Frequency  | efficiency | efficiency (dB) | Gain(dBi) |
|-----------|------------|-----------------|-----------|------------|------------|-----------------|-----------|
| 2400      | 23.2%      | <b>-6.21</b>    | -2.11     | 2400       | 9.0%       | <b>-6.35</b>    | -2.23     |
| 2410      | 23.7%      | <b>-6.12</b>    | -2.06     | 2410       | 9.4%       | <b>-6.24</b>    | -2.15     |
| 2420      | 24.1%      | <b>-6.03</b>    | -2.01     | 2420       | 9.9%       | <b>-6.12</b>    | -2.07     |
| 2430      | 24.6%      | <b>-5.91</b>    | -1.82     | 2430       | 10.4%      | <b>-6.05</b>    | -2.00     |
| 2440      | 25.0%      | <b>-5.79</b>    | -1.61     | 2440       | 11.1%      | <b>-5.89</b>    | -1.88     |
| 2450      | 25.9%      | <b>-5.68</b>    | -1.50     | 2450       | 11.6%      | <b>-5.78</b>    | -1.79     |
| 2460      | 25.3%      | <b>-5.74</b>    | -1.59     | 2460       | 11.2%      | <b>-5.85</b>    | -1.83     |
| 2470      | 24.8%      | <b>-5.88</b>    | -1.78     | 2470       | 10.8%      | <b>-5.91</b>    | -1.91     |
| 2480      | 24.4%      | <b>-5.97</b>    | -1.95     | 2480       | 10.3%      | <b>-6.03</b>    | -2.02     |
| free-R    |            |                 |           | Head ear-R |            |                 |           |

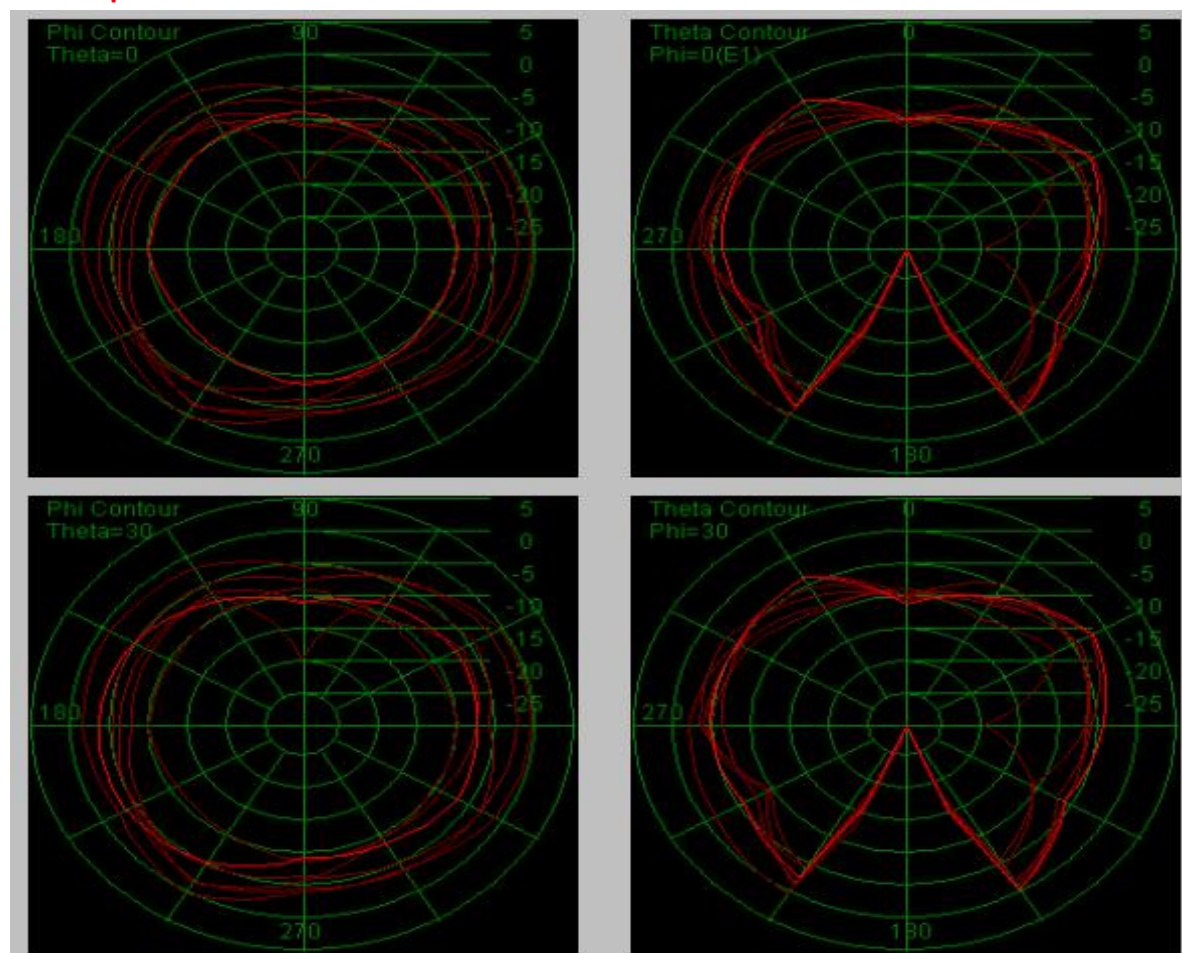
## 2.5 Direction Chart -L

### L-freespace

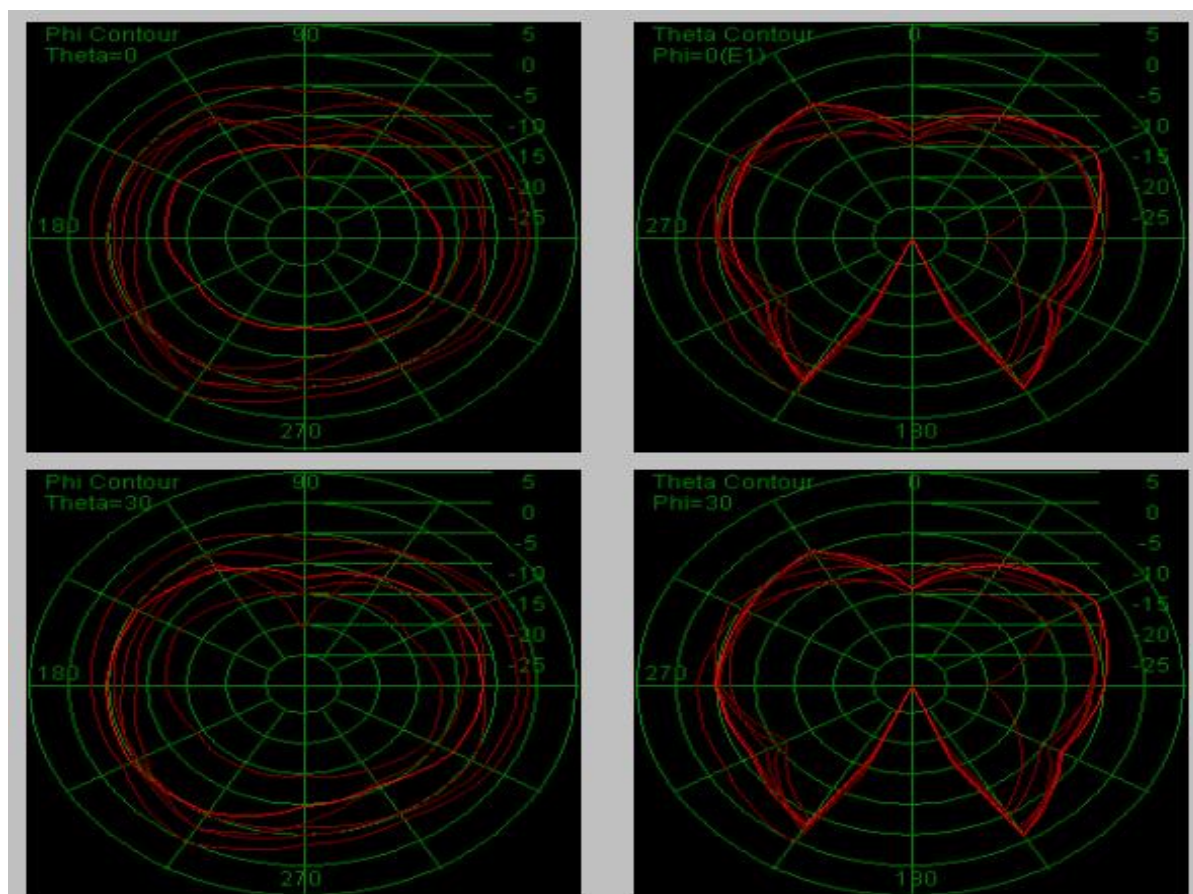


### L-Headear



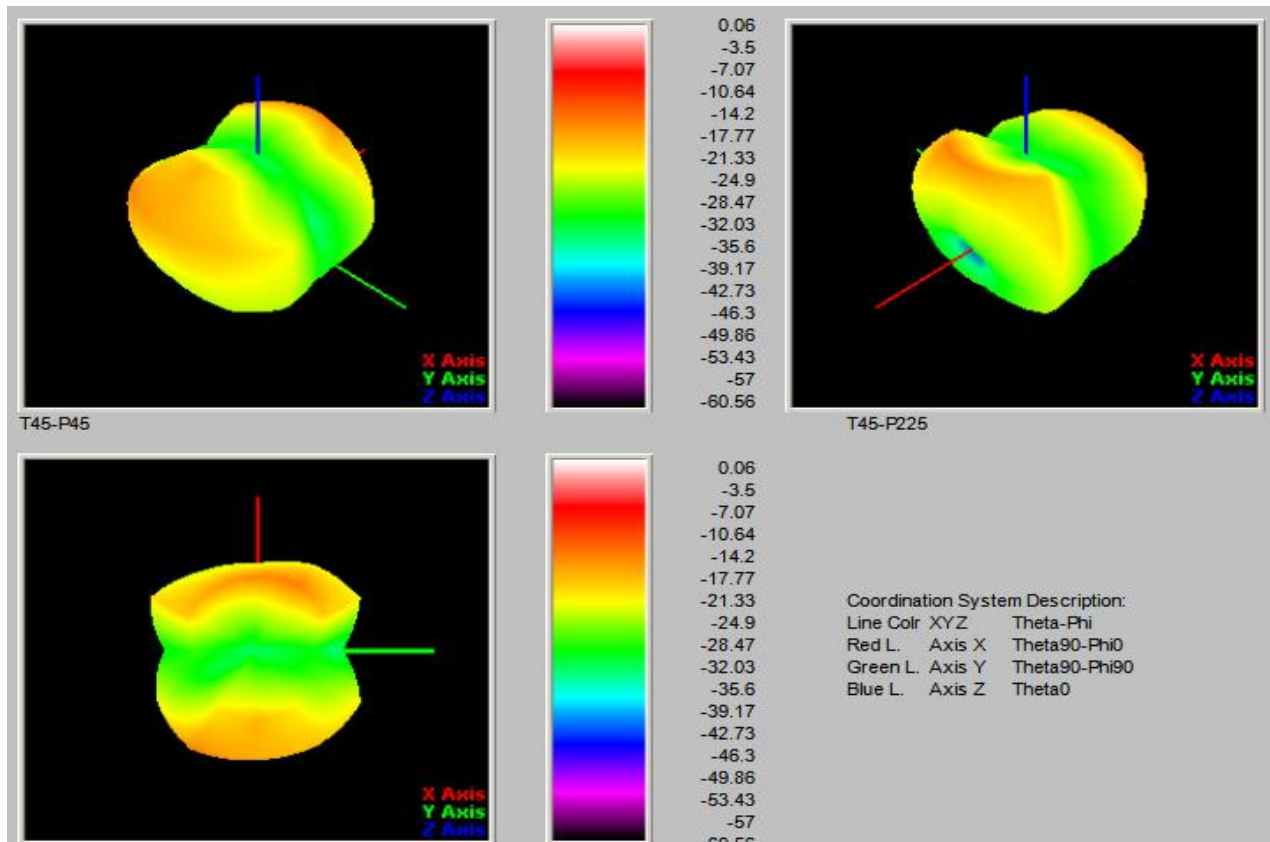


### L-headear

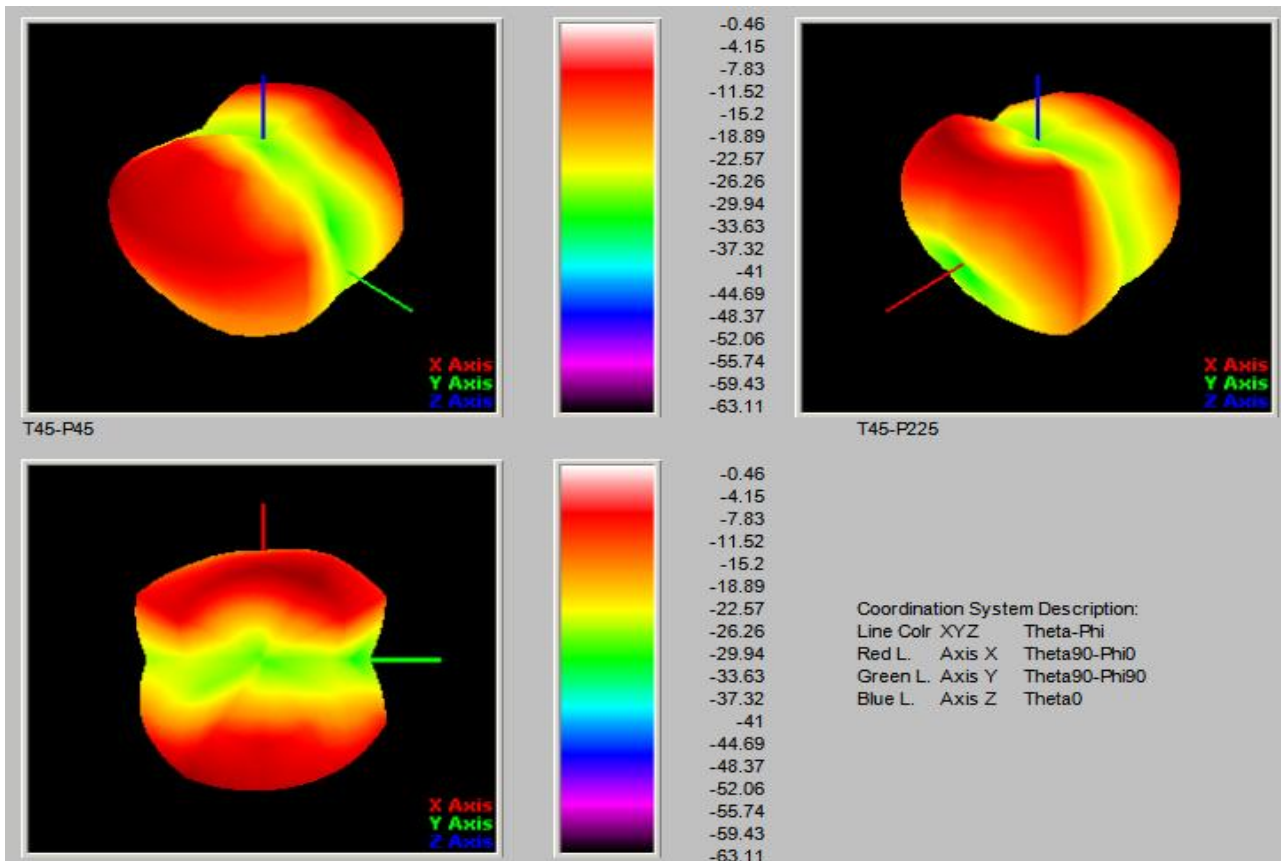


## 2.6 Direction Chart -R

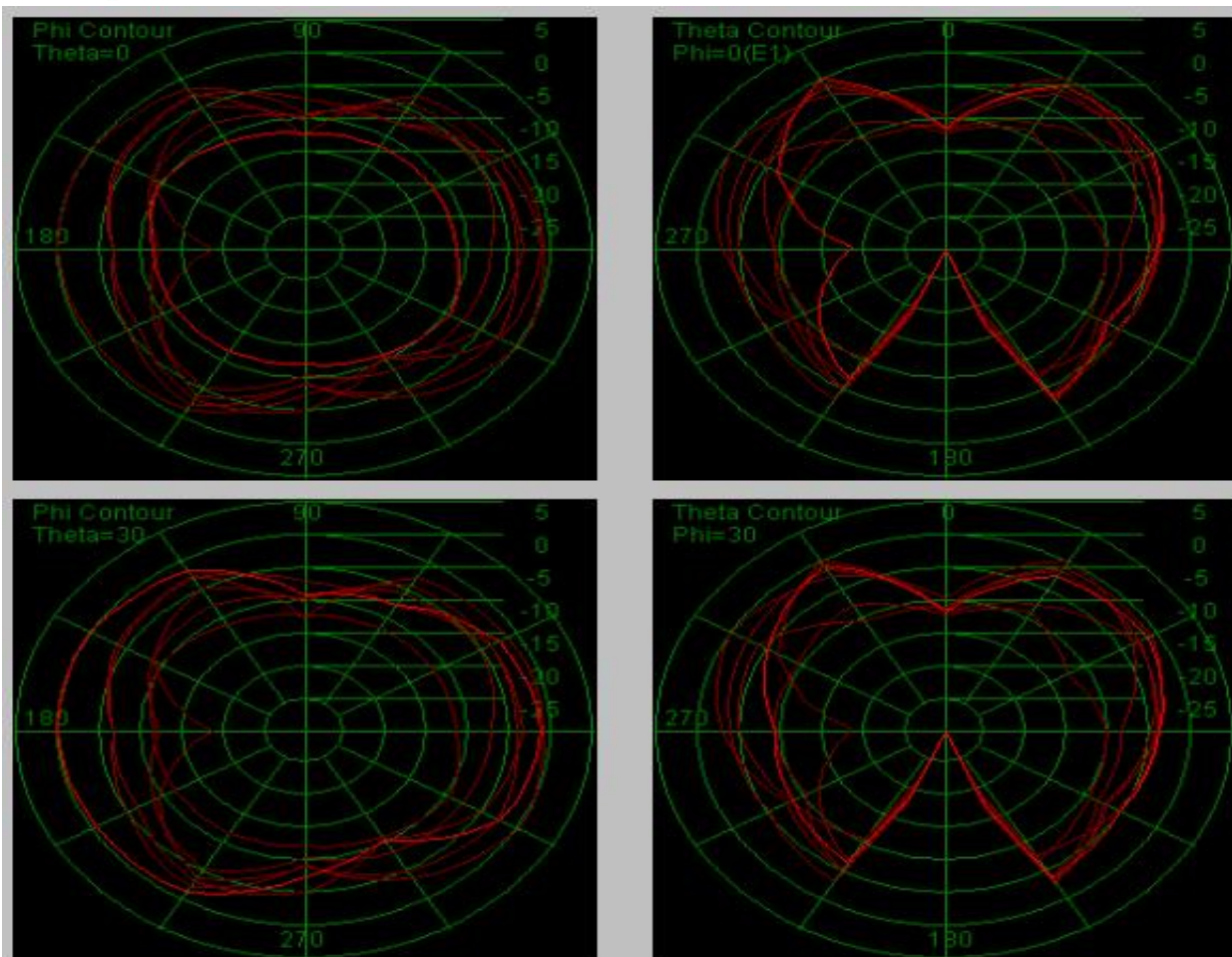
### R-freespace



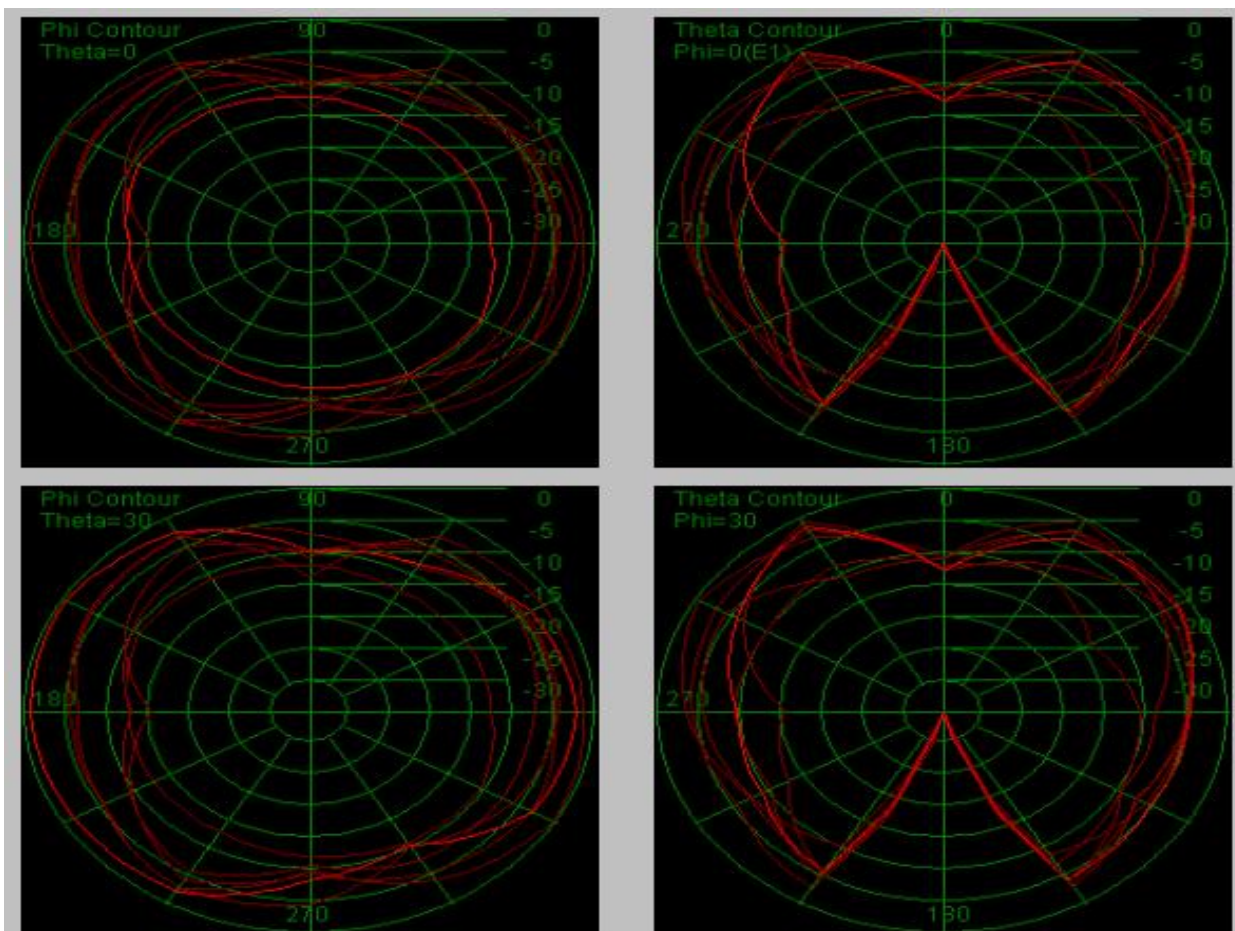
### R-headear



## R-freespace



## R-headear



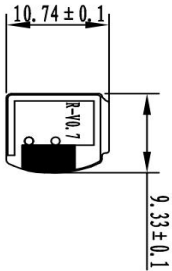
### 3.1 Left earphone

Technical drawing of a mechanical part showing dimensions  $10.74 \pm 0.1$  and  $9.35 \pm 0.1$ . The part has a label  $L=V0.7$ .

Gold plated  
Area

### 3.2 Right Earphone

|                                                                                                                                                                                                                  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| A                                                                                                                                                                                                                |  |  |  | 由 Autodesk 教育版产品制作                                                                                                                                                                                                                                                                                                                                                      |  |  |  |
| skills requirement:                                                                                                                                                                                              |  |  |  | PI substrate:<br>Electrolytic copper (1 to half)<br>0.5oz (ED)<br>Double-sided tape:<br>TESA 68532<br>Nickel plated: 38um<br>Gilded: 0.025um<br>Surface ink color:<br>Matt black<br>Printing font color:<br>Bright black<br>Printing font height:<br>According to drawings                                                                                              |  |  |  |
| 1. Reliability test: salt spray test\rubber friction test\alcohol resistance test\100 grid test.<br>2. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc. |  |  |  | 1. Shape tolerance $\pm 0.10$ ;<br>2. Copper foil circuit tolerance $\pm 0.05$ ;<br>3. The position of the copper foil to the shape is $\pm 0.15$ ;<br>4. Hole-to-hole position tolerance $\pm 0.10$ ; hole-to-shape position tolerance $\pm 0.15$ ;<br>5. The size tolerance of gold finger is $\pm 0.20$ ;<br>6. For other unmarked dimensions, refer to 2D drawings. |  |  |  |
| 5. Tolerance requirements:                                                                                                                                                                                       |  |  |  | The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings                                                                                                                                                                                                                                                            |  |  |  |
| 6. Key control size:                                                                                                                                                                                             |  |  |  | Parts meet ROHS2.0/REACH/CP environmental protection requirements                                                                                                                                                                                                                                                                                                       |  |  |  |
| 7. Environmental requirements:                                                                                                                                                                                   |  |  |  | Packed in PE bags, the quantity of each bag is 100PCS, there is a mark on the outside of the bag                                                                                                                                                                                                                                                                        |  |  |  |
| 8. Packaging requirements:                                                                                                                                                                                       |  |  |  | 0 10 $\pm 0.10$ $\phi$ 0.02 $\square$ 0.03<br>10 20 $\pm 0.12$ $\odot$ 0.03<br>20 40 $\pm 0.15$ $\perp$ 0.02<br>40 50 $\pm 0.20$ $\nabla$ 0.04<br>位置 $\nabla$ 0.02                                                                                                                                                                                                      |  |  |  |
| DATE                                                                                                                                                                                                             |  |  |  | Modify the content<br>Version<br>Revise                                                                                                                                                                                                                                                                                                                                 |  |  |  |
| 1                                                                                                                                                                                                                |  |  |  | 2                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
| 3                                                                                                                                                                                                                |  |  |  | 4                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
| 5                                                                                                                                                                                                                |  |  |  | 6                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
| 7                                                                                                                                                                                                                |  |  |  | 8                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |



Beats

Gold plated Area

Shenzhen Yu Sheng Communication Equipment Co., Ltd.

|                        |                                 |            |          |
|------------------------|---------------------------------|------------|----------|
| Model                  | A3982                           | DATE       | 20230831 |
| Name                   | R-BT-FPC                        | Design     | JFB      |
| Part NO                | 095012-1B                       | Review     | MD       |
| Material quality       | Electrolytic copper (1 to half) | RF         | JFB      |
| Weld surface treatment |                                 | confirm    | CXH      |
| Appearance treatment   |                                 | UNIT       |          |
|                        |                                 | mm         |          |
|                        |                                 | proportion | FTT      |
|                        |                                 | Revise     | R: A     |

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