



# Antenna Part Specification

|                       |                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------|
| Customer name:        | EDIFIER                                                                                       |
| Project name:         | NeoBuds Pro 3                                                                                 |
| Antenna type:         | FPC                                                                                           |
| Material category:    | L&R-Antenna Module                                                                            |
| Version:              | V1.0                                                                                          |
| Date:                 | 2025.01.10                                                                                    |
| Manufacturer Address: | 505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china |



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| Change record            |                   |                 |         |
|--------------------------|-------------------|-----------------|---------|
| Compile /<br>change date | Reason for change | Changed content | Version |
| 2025.01.10               | first edition     | first edition   | V1.0    |
|                          |                   |                 |         |
|                          |                   |                 |         |

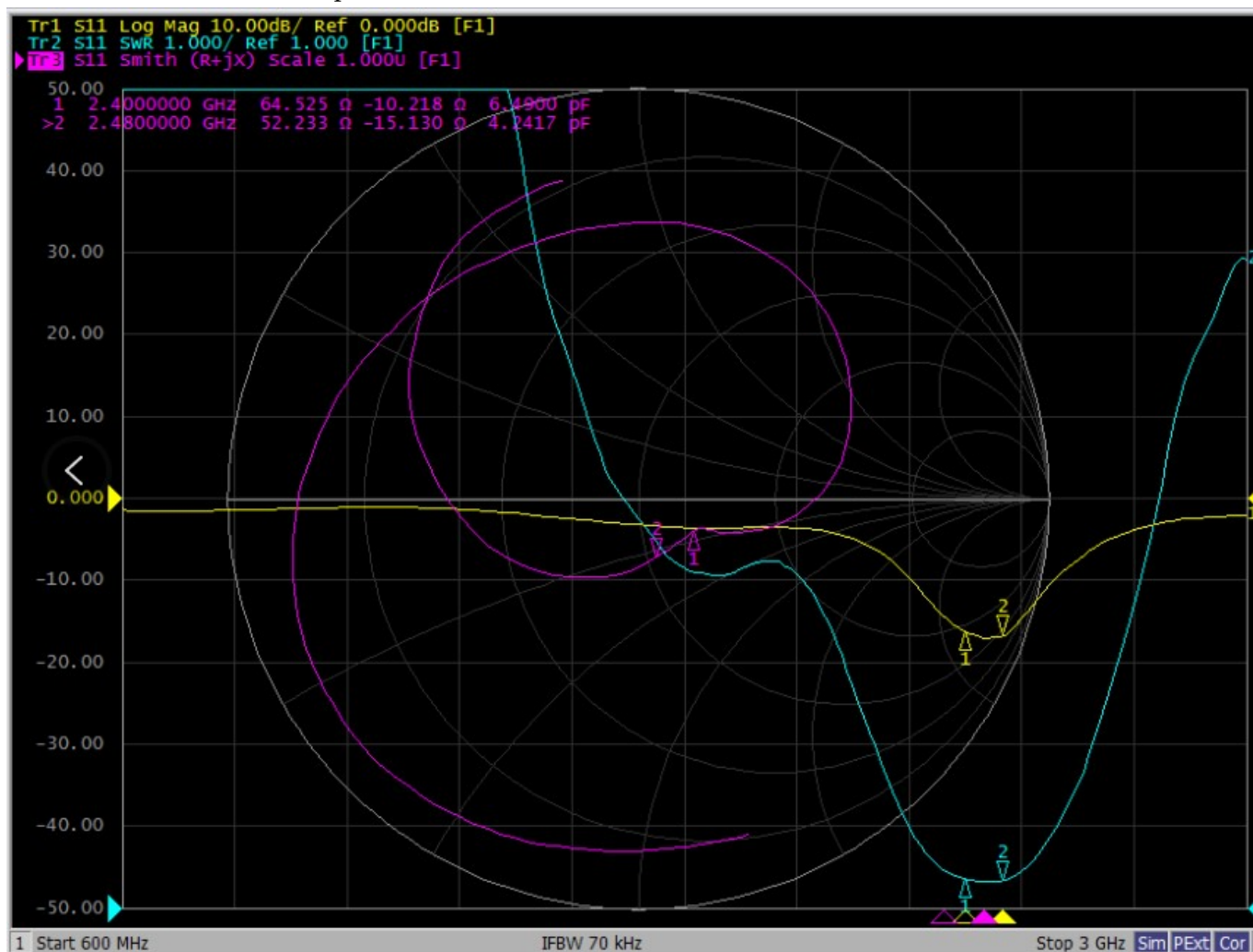


## I: The report of passive data



Angilent E5071C

Left ear antenna S parameters :



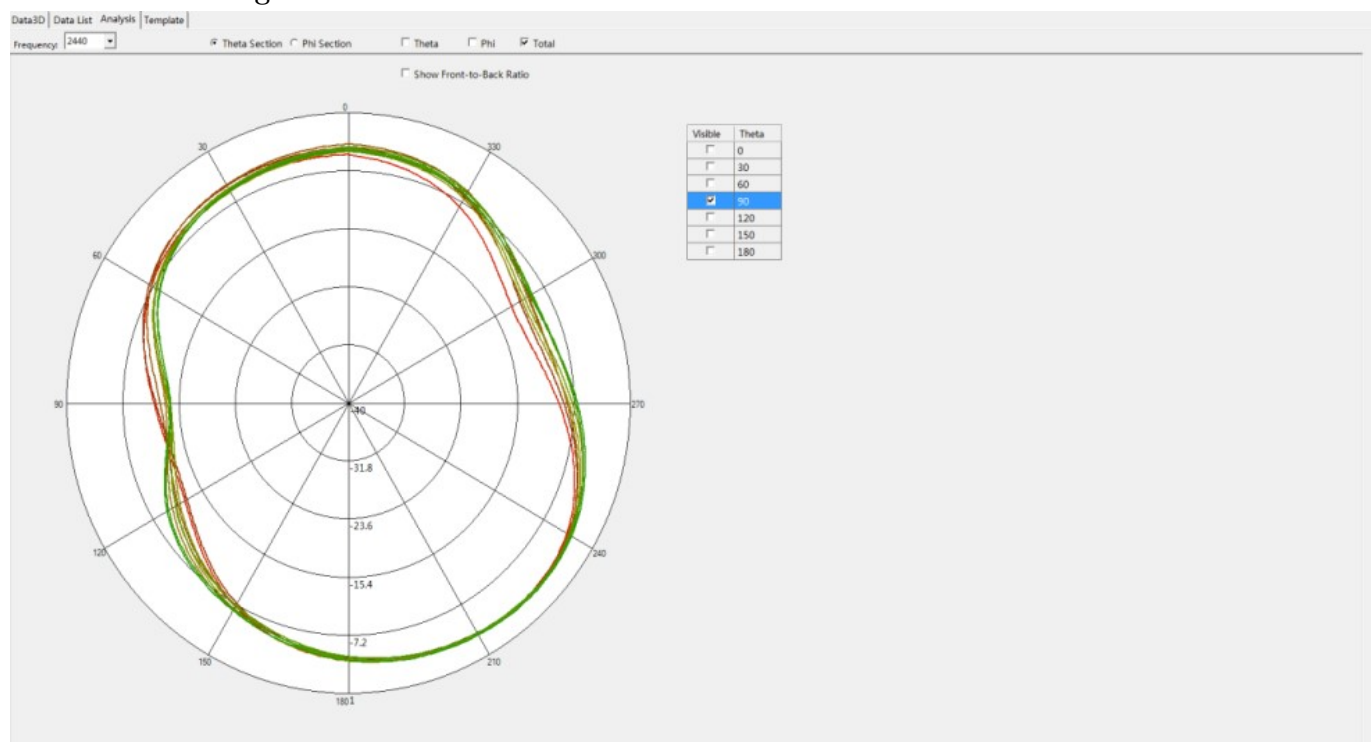


Left ear antenna efficiency&gain

| L             |              |                  |            |
|---------------|--------------|------------------|------------|
| Frequency MHz | Efficiency % | Efficiency (dB ) | Gain (dBi) |
| 2400          | 34.2%        | -4.65            | -2.23      |
| 2410          | 36.3%        | -4.40            | -2.06      |
| 2420          | 36.5%        | -4.38            | -2.07      |
| 2430          | 34.9%        | -4.57            | -2.33      |
| 2440          | 34.1%        | -4.67            | -2.29      |
| 2450          | 34.4%        | -4.64            | -2.26      |
| 2460          | 34.5%        | -4.62            | -2.27      |
| 2470          | 34.7%        | -4.60            | -2.34      |
| 2480          | 35.7%        | -4.48            | -2.06      |
| Average value | 35.0%        | -4.55            | -2.21      |

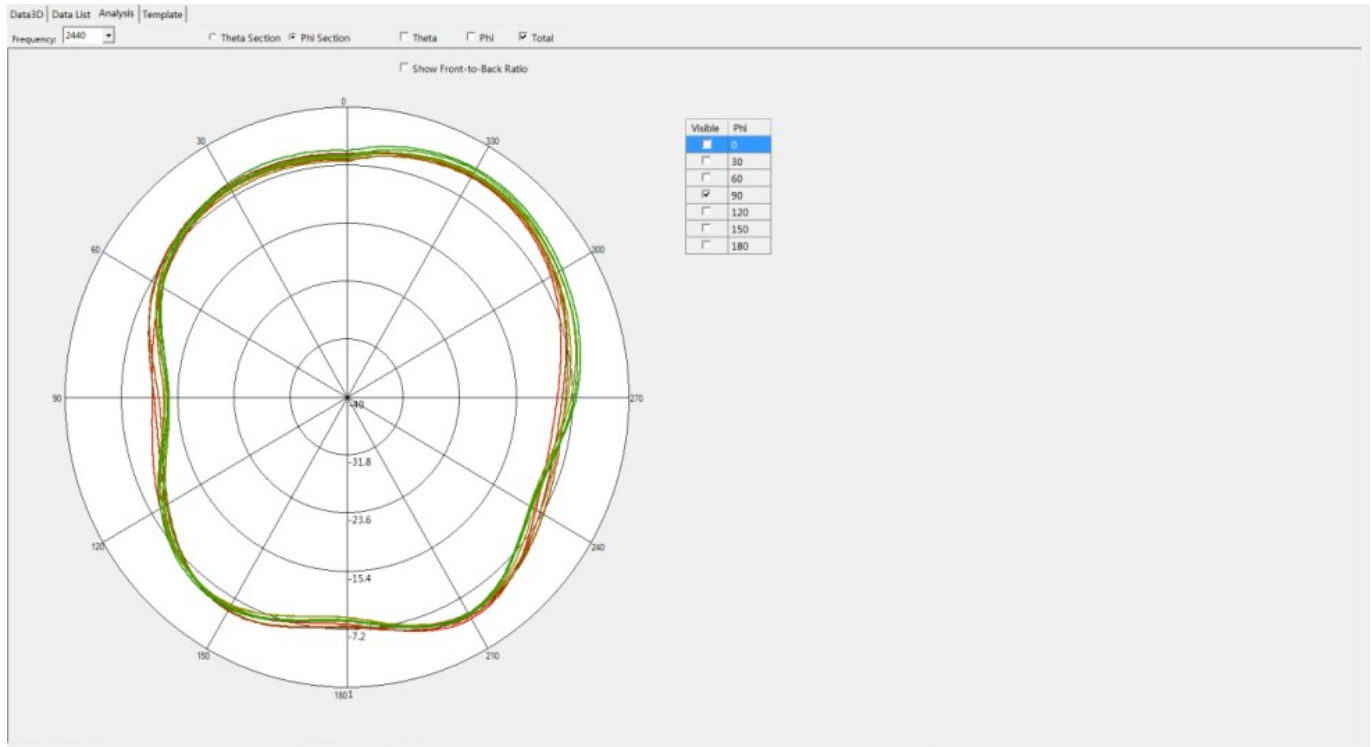
Passive directional pattern of left ear antenna:

Theta=90.00deg

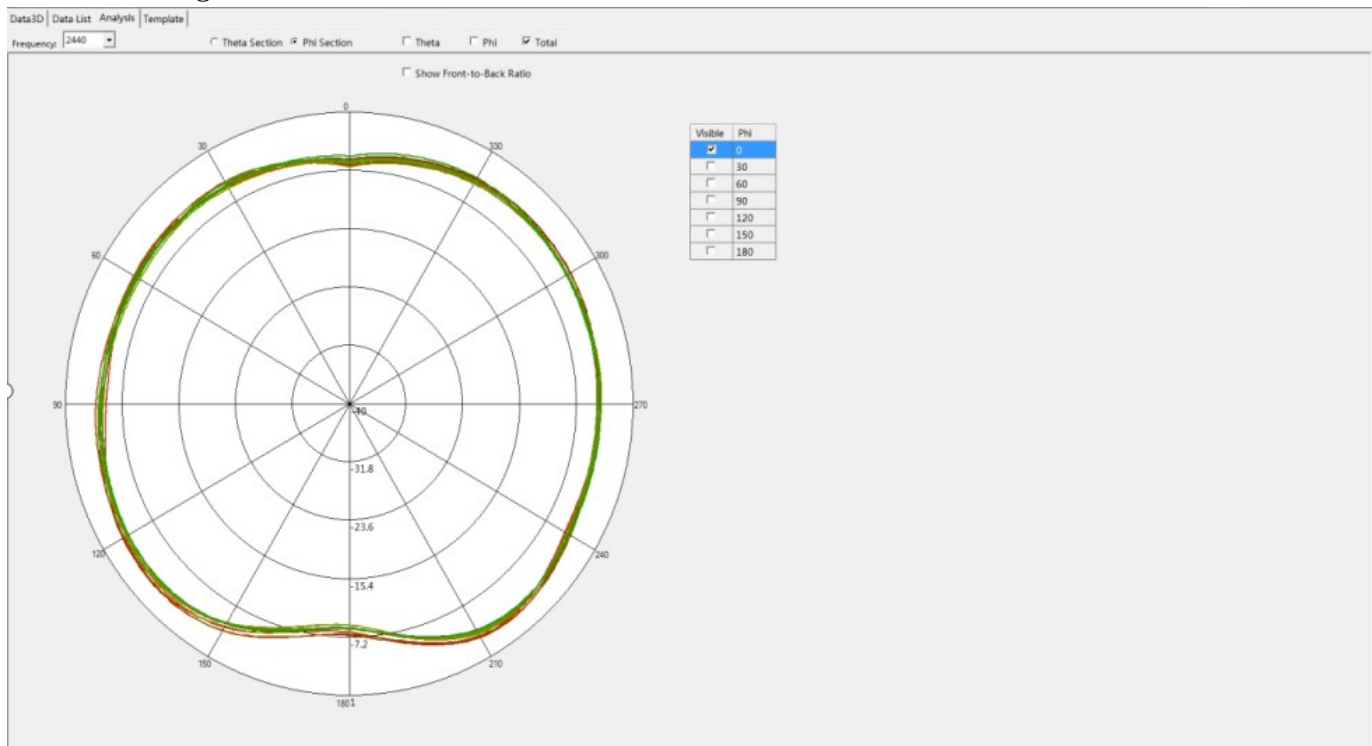




Phi=90.00deg

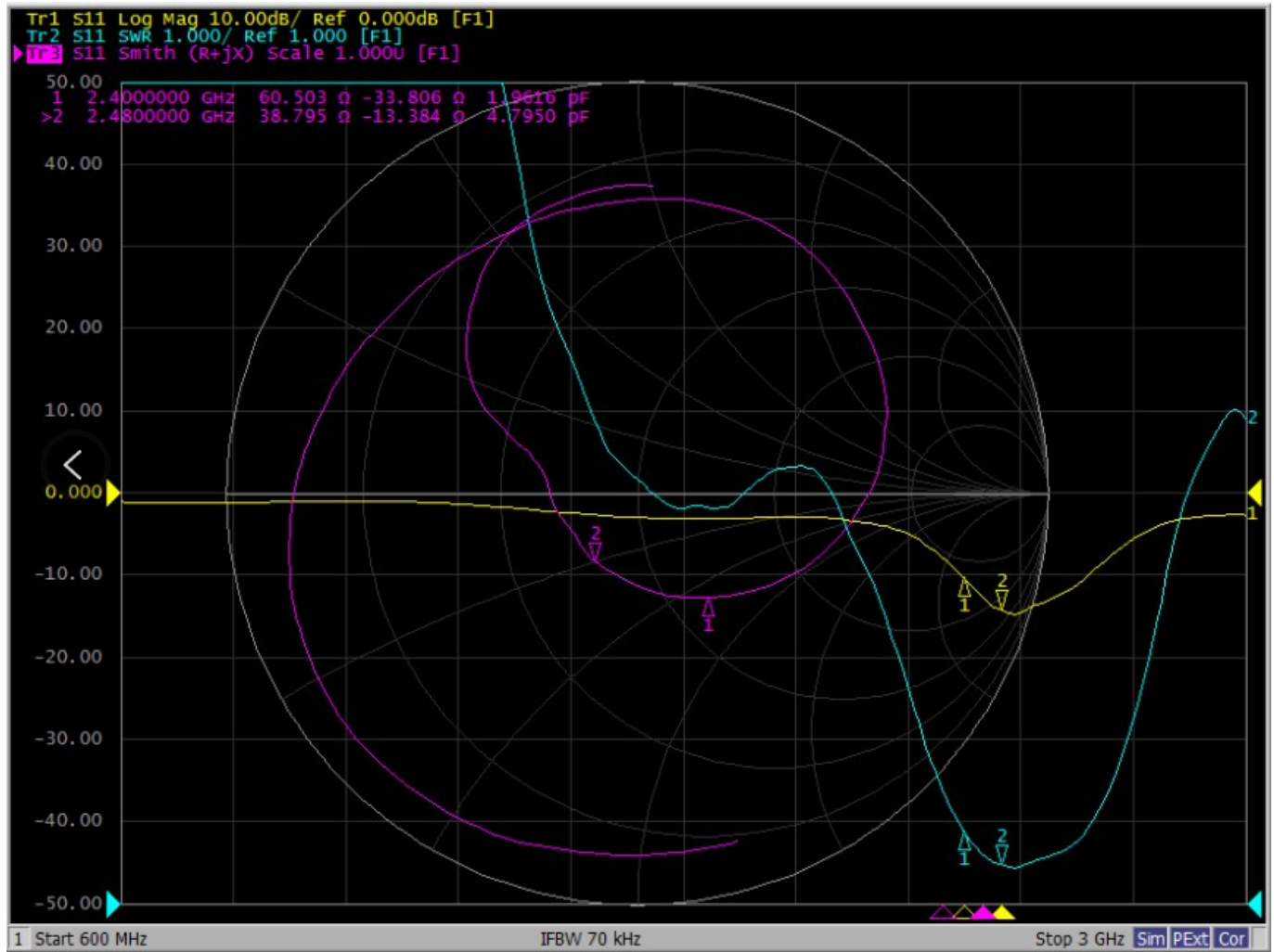


Phi=0.00deg





Right ear antenna S parameter:



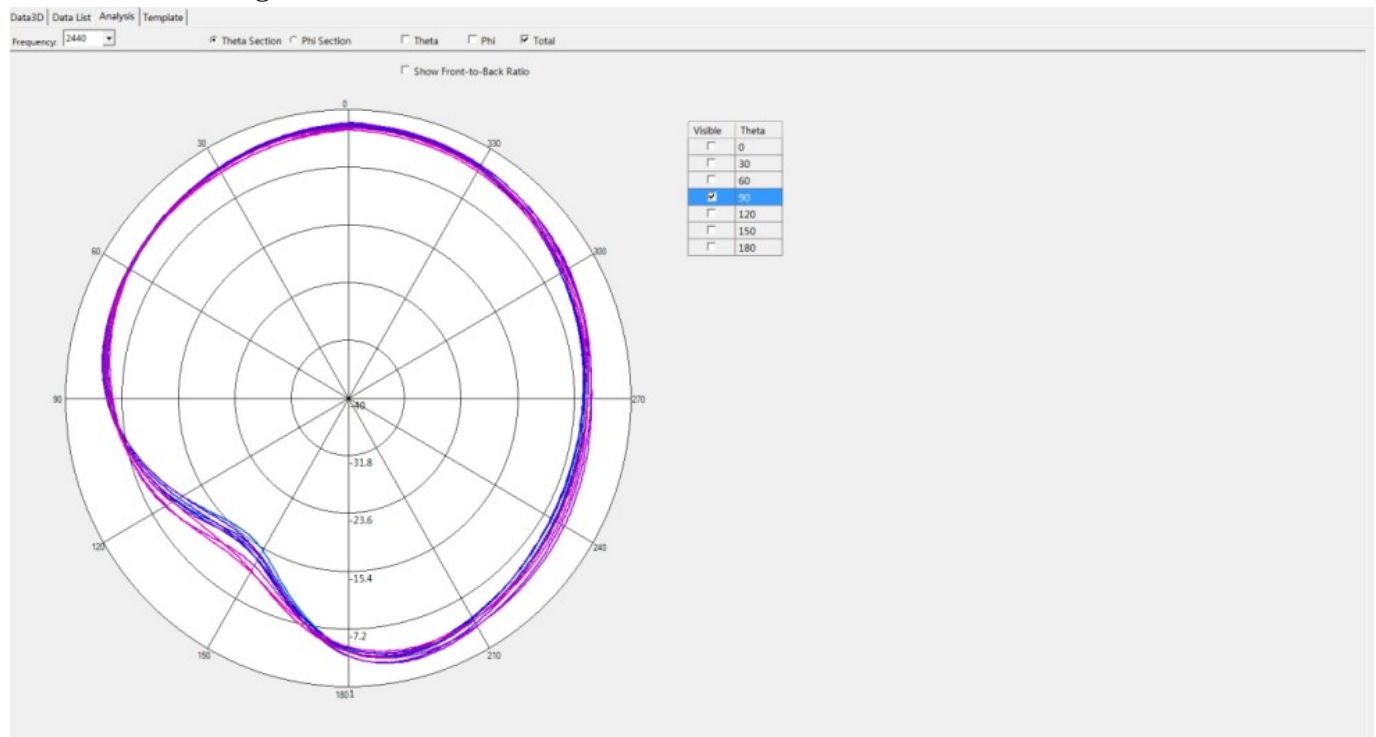


Right ear antenna efficiency&gain

| R               |                |                  |            |
|-----------------|----------------|------------------|------------|
| Frequency (MHz) | Efficiency (%) | Efficiency (dB ) | Gain (dBi) |
| 2400            | 34.0%          | -4.69            | -0.72      |
| 2410            | 35.0%          | -4.56            | -0.73      |
| 2420            | 33.3%          | -4.77            | -1.09      |
| 2430            | 33.2%          | -4.79            | -1.08      |
| 2440            | 34.6%          | -4.61            | -0.79      |
| 2450            | 35.5%          | -4.49            | -0.92      |
| 2460            | 35.9%          | -4.45            | -0.81      |
| 2470            | 33.0%          | -4.81            | -1.19      |
| 2480            | 32.6%          | -4.87            | -1.20      |
| Average value   | 34.1%          | -4.67            | -0.95      |

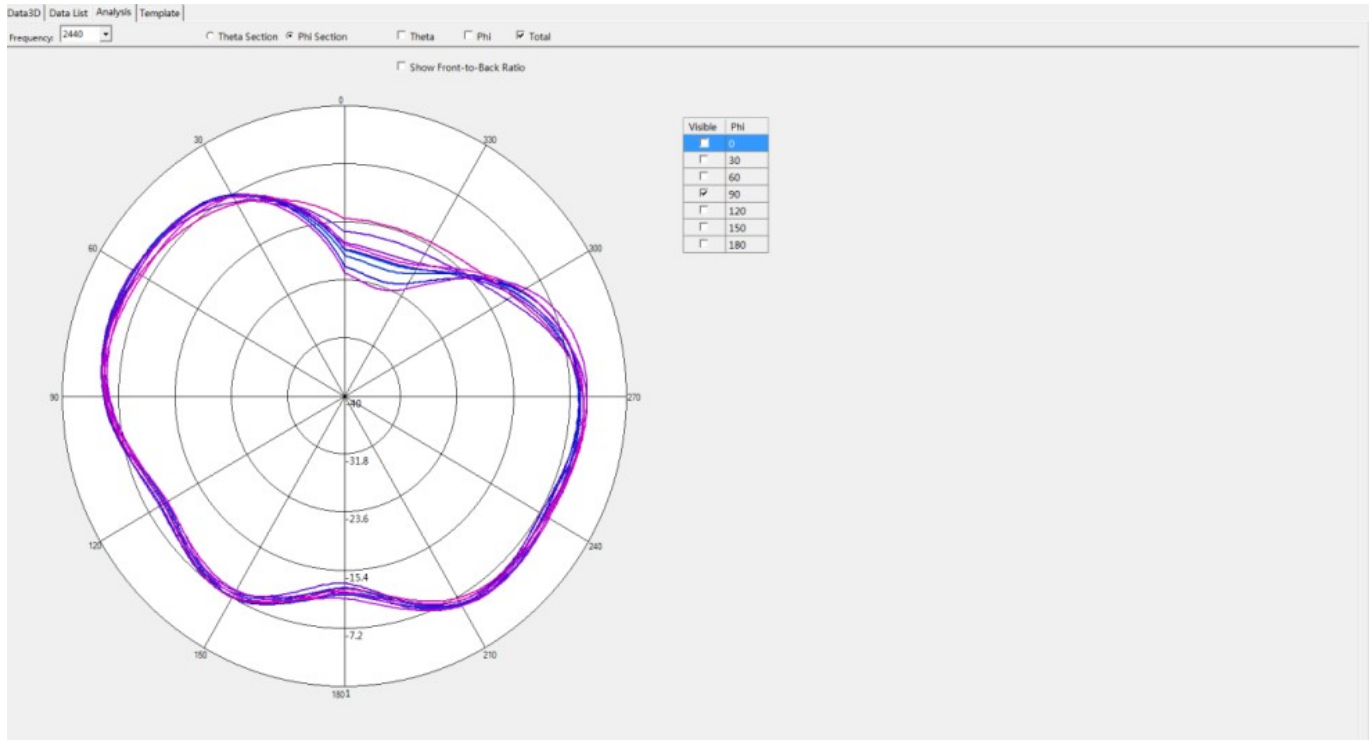
Passive directional pattern of right ear antenna:

Theta=90.00deg

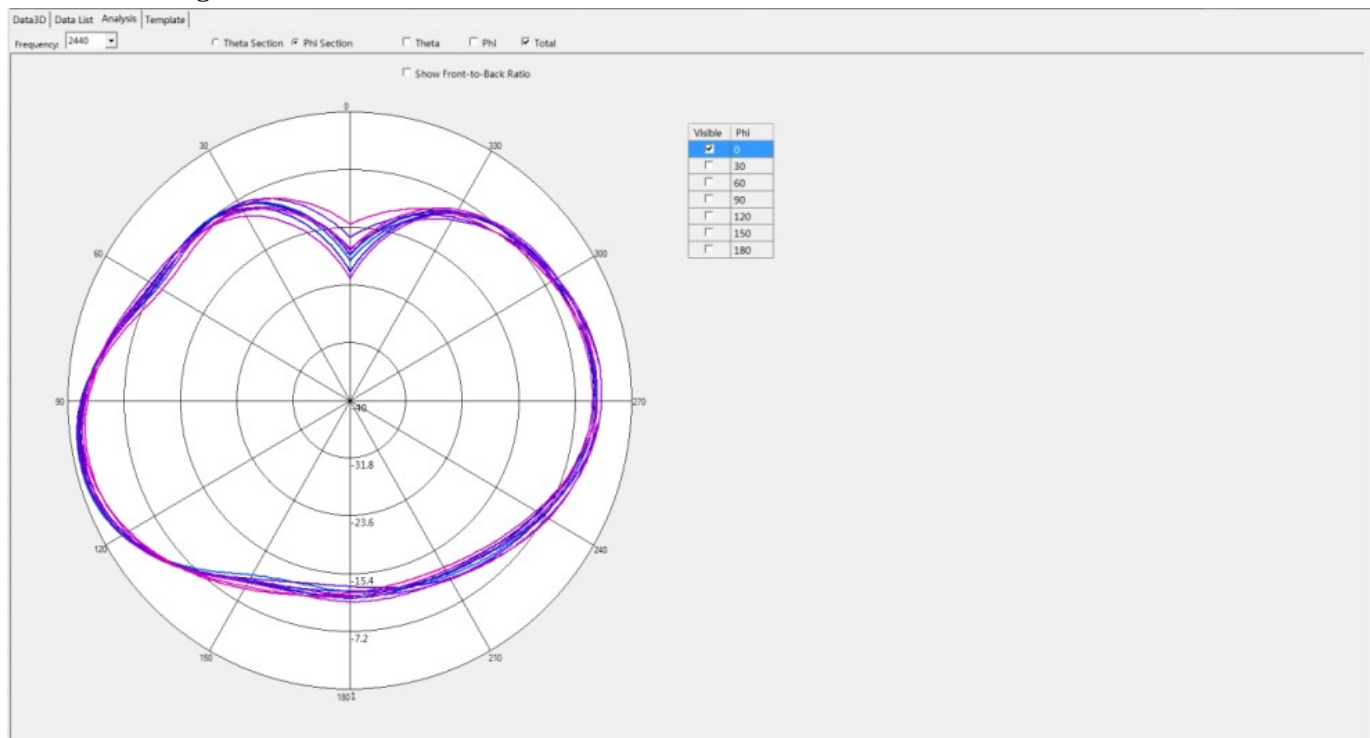




Phi=90.00deg



Phi=0.00deg





II: 3D Active test report of antenna

| free space | Channel | TRP (dBm) | TIS (dBm) |
|------------|---------|-----------|-----------|
| L          | CH 0    | 8.4       | -91.3     |
|            | CH 39   | 10.6      | -92.6     |
|            | CH 78   | 7.9       | -90.3     |

| headform | Channel | TRP (dBm) | TIS (dBm) |
|----------|---------|-----------|-----------|
| L        | CH 0    | 0.7       | -83.2     |
|          | CH 39   | 3.5       | -85.8     |
|          | CH 78   | 0.9       | -83.5     |

| free space | Channel | TRP (dBm) | TIS (dBm) |
|------------|---------|-----------|-----------|
| R          | CH 0    | 8.5       | -91.2     |
|            | CH 39   | 10.0      | -92.4     |
|            | CH 78   | 8.8       | -90.7     |

| headform | Channel | TRP (dBm) | TIS (dBm) |
|----------|---------|-----------|-----------|
| R        | CH 0    | 0.4       | -83.1     |
|          | CH 39   | 3.4       | -85.6     |
|          | CH 78   | 1.4       | -84.4     |



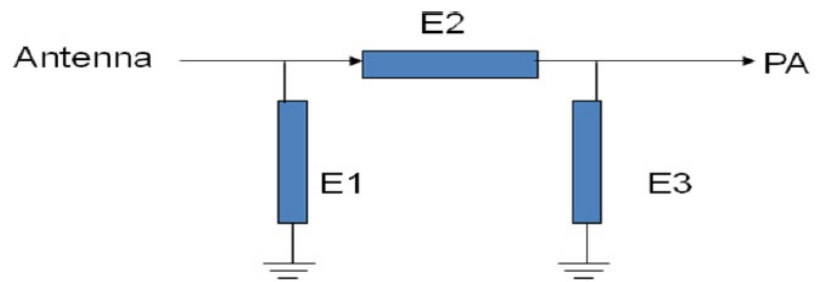
OTA Standard Chamber



### III: Matching circuit

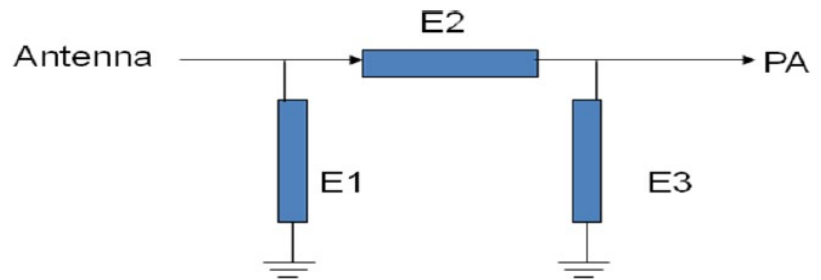
Left ear matching circuit:

| Element | Value          |
|---------|----------------|
| E1      | N/A            |
| E2      | $0\ \Omega$    |
| E3      | $2.0\text{pF}$ |



Right ear matching circuit:

| Element | Value          |
|---------|----------------|
| E1      | N/A            |
| E2      | $0\ \Omega$    |
| E3      | $2.0\text{pF}$ |





IV: Structure file

