



Antenna Part Specification

| | |
|-----------------------|--|
| Customers: | Cosonic Intelligent Technologies Co., Ltd. |
| Project name: | A3958 |
| Material category: | LDS |
| Antenna type: | LDS Antenna |
| Version: | V3.0 |
| Date: | 2024.03.01 |
| Manufacturer Address: | 505-506 ,A Block, Donglian Building, Chuangye 2 road, Baoan District, Shenzhen, Guangdong, P.R china |



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| Change record | | | |
|-----------------------|----------------------|--|---------|
| Compile / change date | Reason for change | Changed content | Version |
| 2024.01.06 | First edition | First edition | V1.0 |
| 2024.01.25 | Antenna optimization | Change FPC cable layout and correct antenna frequency offset | V2.0 |
| 2024.03.01 | Antenna fine-tuning | Increase Touch area | V3.0 |

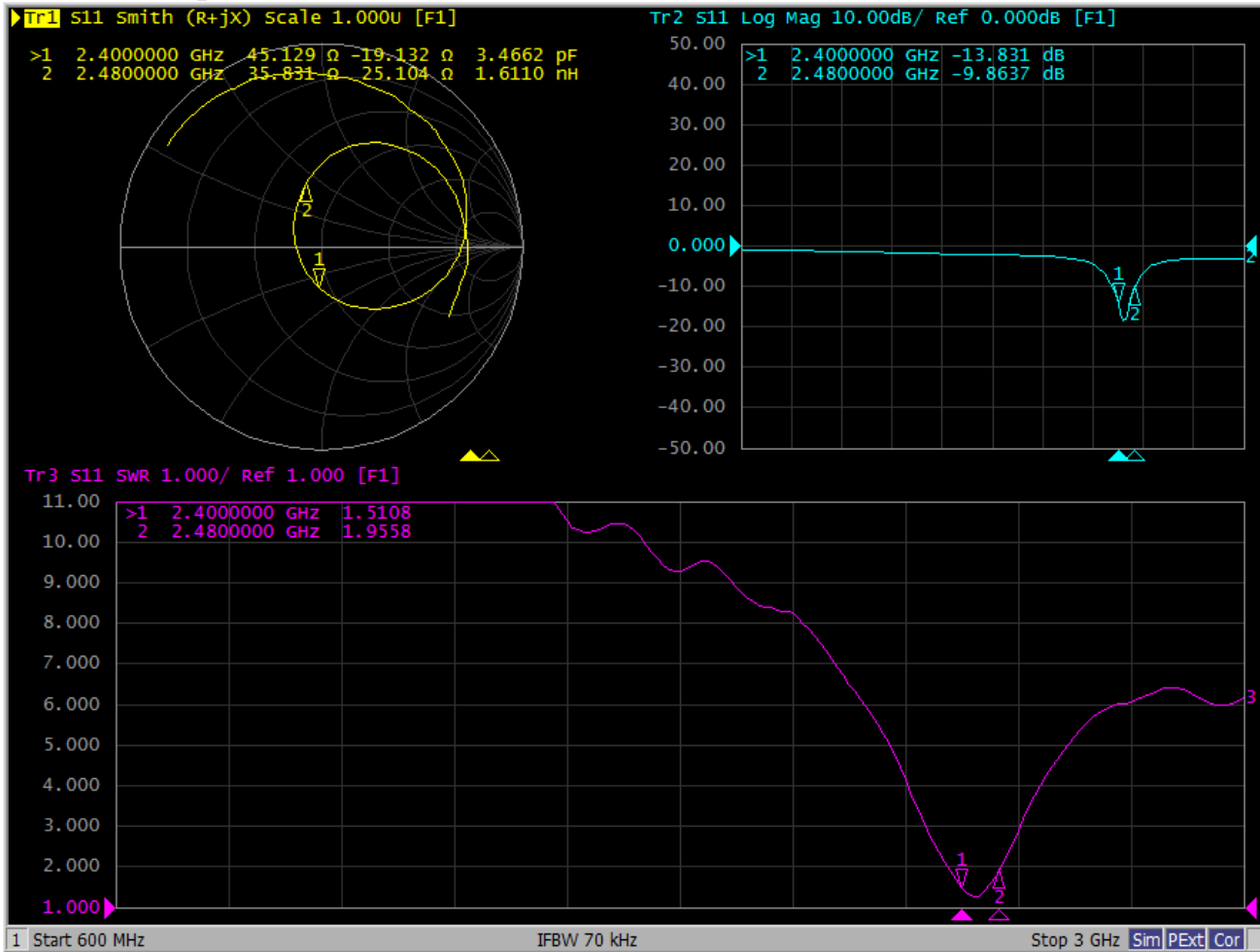


I: The report of passive data



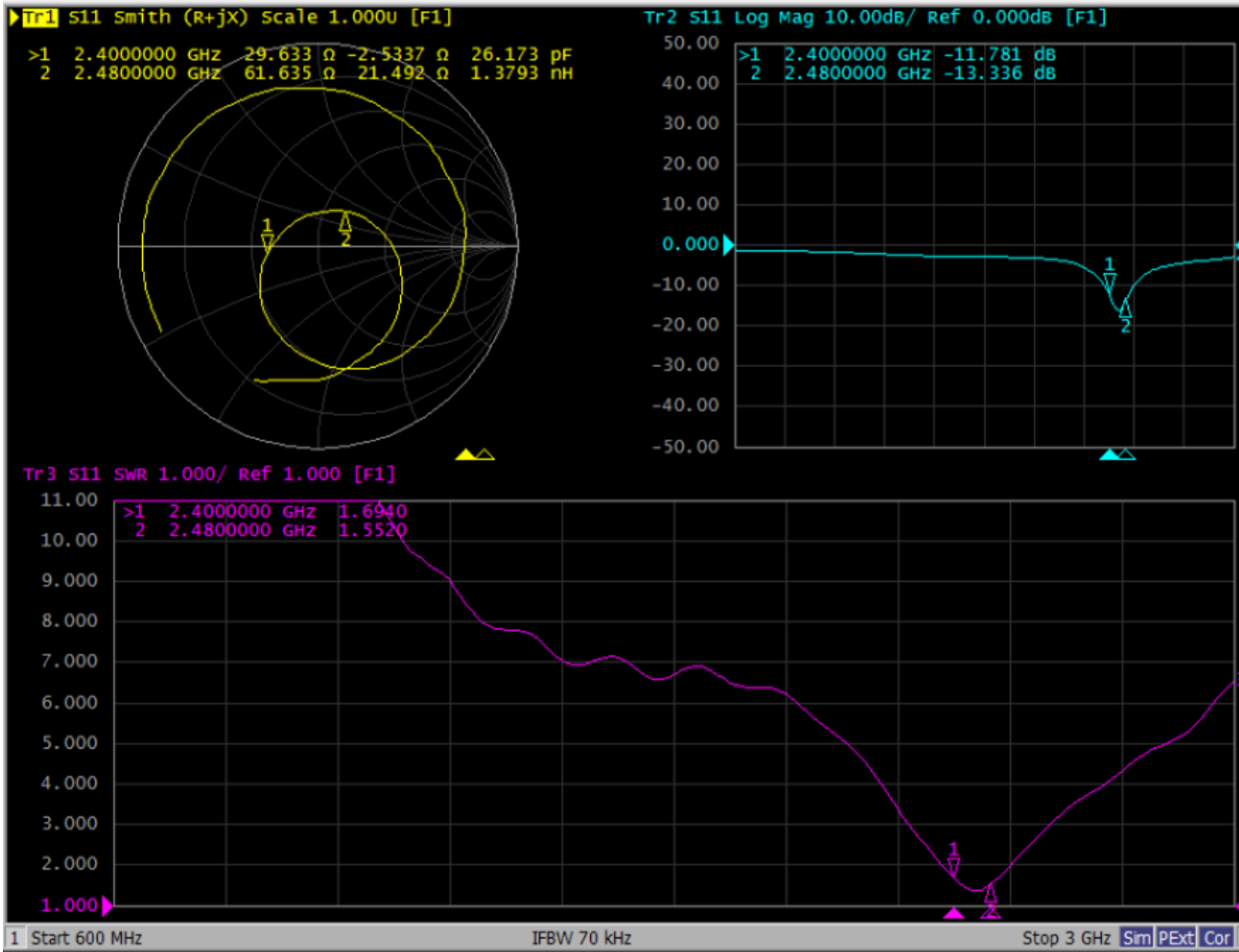
Angilent E5071C

VSWR(S11) parameter (L) :





VSWR(S11) parameter (R) :





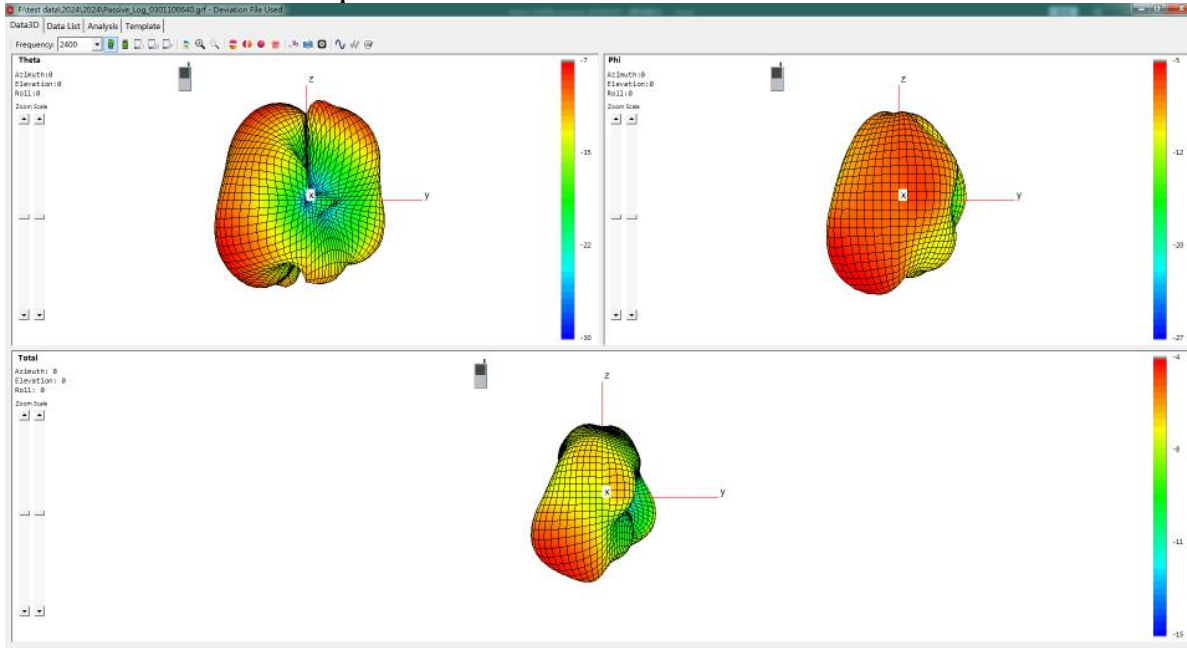
Efficiency:

| L | | | | |
|-----------------|------------|------------------|------------|--------------------|
| Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency | Maximum gain (dBi) |
| 2400 | -5.4 | -7.2 | 19.2 | -4.9 |
| 2410 | -5.2 | -7.0 | 20.1 | |
| 2420 | -5.2 | -6.8 | 20.7 | |
| 2430 | -5.0 | -6.6 | 21.7 | |
| 2440 | -4.9 | -6.7 | 21.5 | |
| 2450 | -4.9 | -6.5 | 22.2 | |
| 2460 | -5.1 | -6.5 | 22.3 | |
| 2470 | -5.7 | -6.9 | 20.4 | |
| 2480 | -6.2 | -7.3 | 18.6 | |
| Average value | -5.3 | -6.8 | 20.7 | |

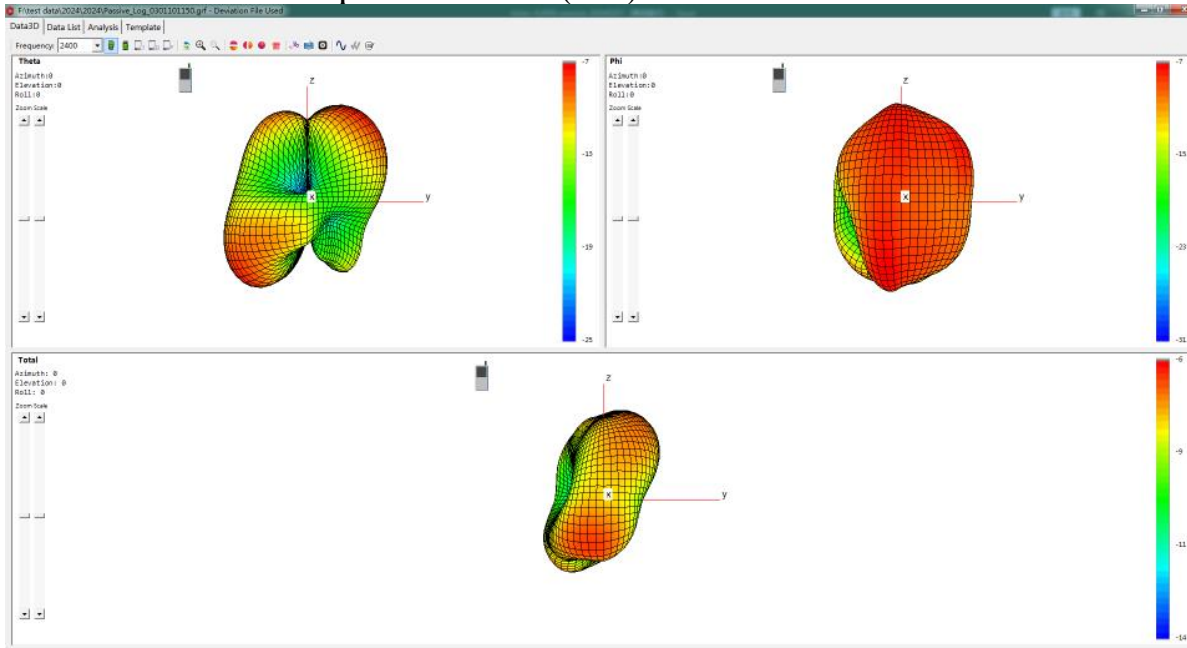
| R | | | | |
|-----------------|------------|------------------|------------|--------------------|
| Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency | Maximum gain (dBi) |
| 2400 | -6.7 | -7.4 | 18.2 | -5.4 |
| 2410 | -6.2 | -7.1 | 19.7 | |
| 2420 | -5.8 | -6.9 | 20.4 | |
| 2430 | -5.7 | -6.8 | 20.8 | |
| 2440 | -5.5 | -6.7 | 21.5 | |
| 2450 | -5.5 | -6.8 | 21.1 | |
| 2460 | -5.4 | -6.7 | 21.4 | |
| 2470 | -5.4 | -6.7 | 21.3 | |
| 2480 | -5.9 | -7.1 | 19.3 | |
| Average value | -5.8 | -6.9 | 20.4 | |



3D Antenna radiation pattern (2.4GHz (dBi)L) :

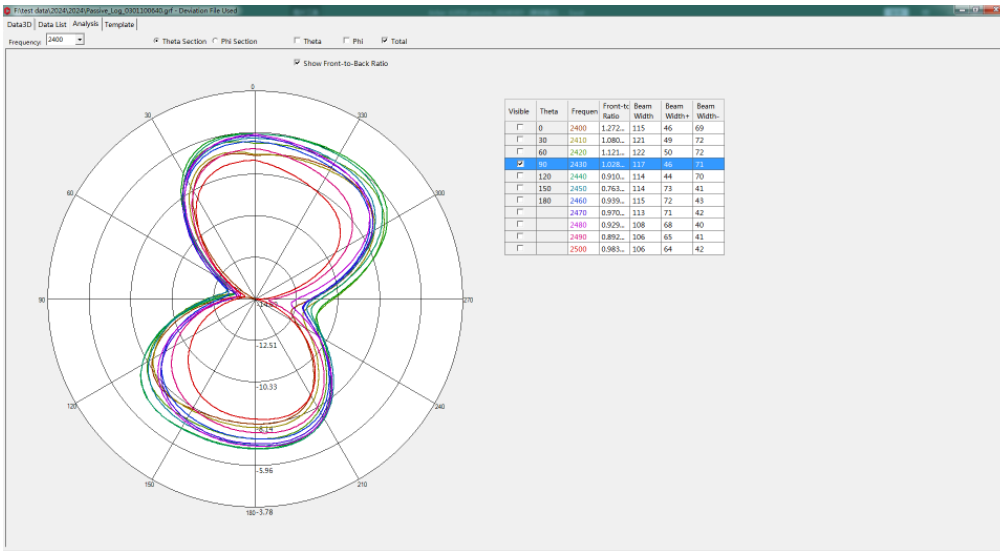


3D Antenna radiation pattern 2.4GHz(dBi) (R) :

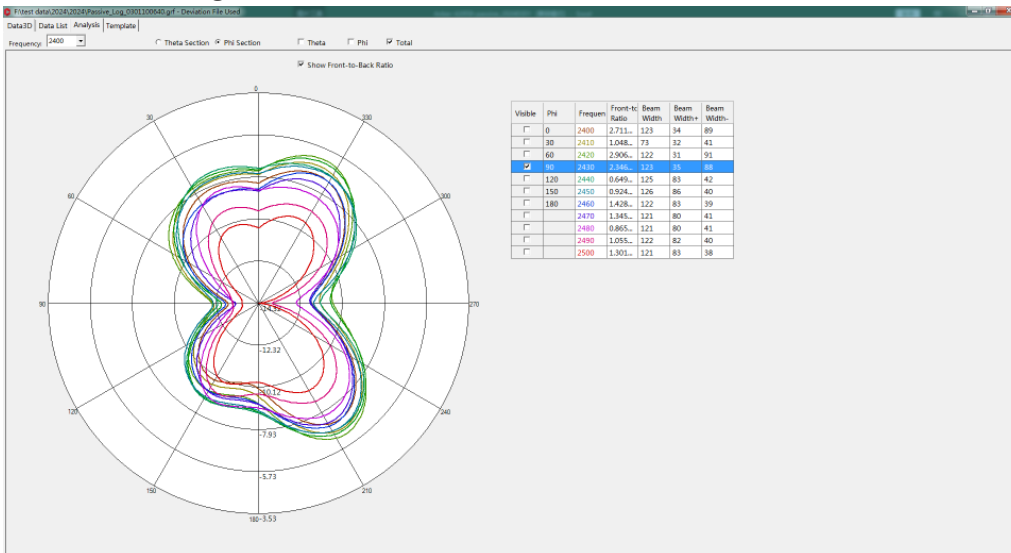




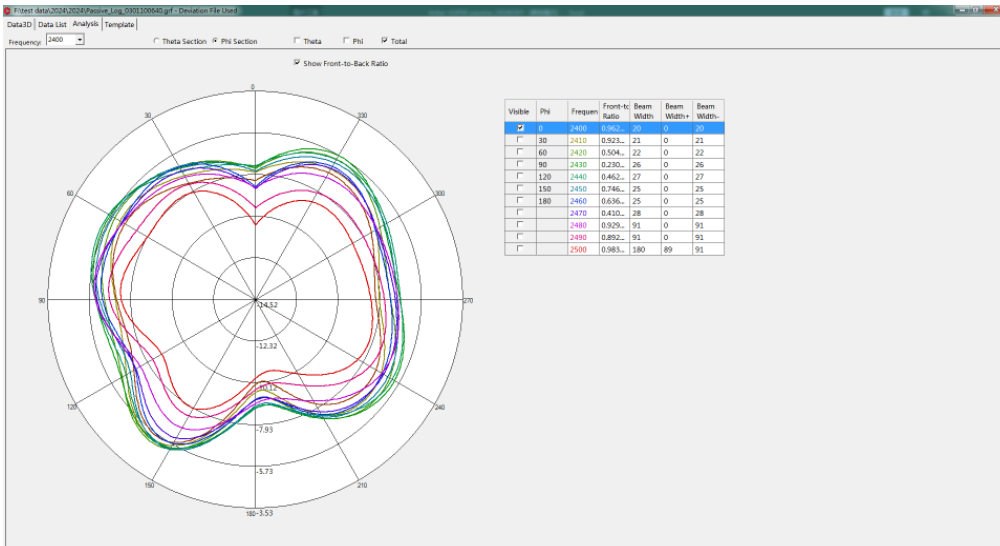
2D Antenna radiation pattern(dBi) (L) :
Theta=90.00deg



Phi=90.00deg

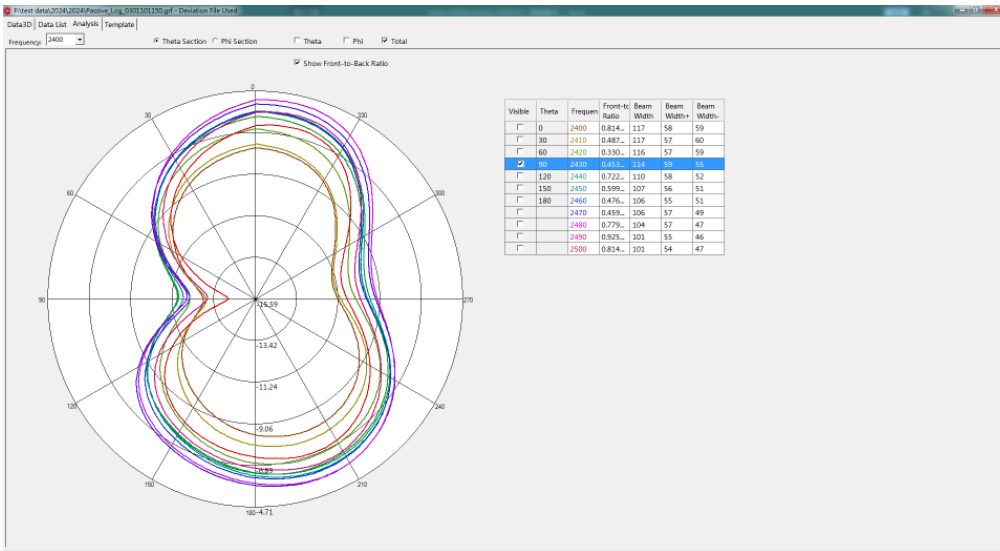


Phi=0.00deg

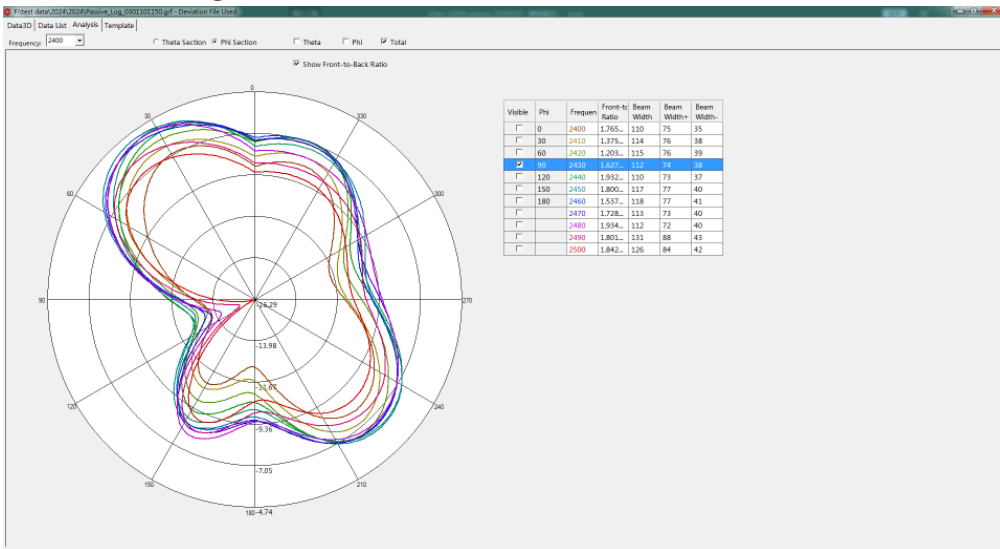




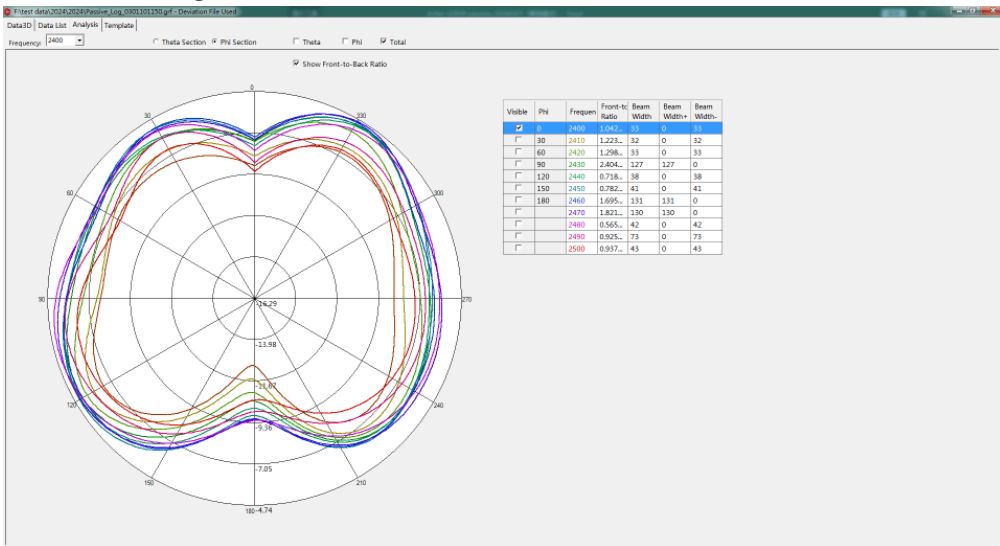
2D Antenna radiation pattern(dBi) (R) : Theta=90.00deg



Phi=90.00deg



Phi=0.00deg





II: 3D Active test report of antenna

| L | Channel | TRP (dBm) | TIS (dBm) |
|------------|---------|-----------|-----------|
| free space | CH 0 | -0.6 | -85.3 |
| | CH 39 | 0.7 | -87.7 |
| | CH 78 | 0.2 | -87.1 |

| L | Channel | TRP (dBm) | TIS (dBm) |
|----------|---------|-----------|-----------|
| headform | CH 0 | -4.0 | -81.9 |
| | CH 39 | -3.5 | -82.8 |
| | CH 78 | -5.4 | -81.6 |

| R | Channel | TRP (dBm) | TIS (dBm) |
|------------|---------|-----------|-----------|
| free space | CH 0 | -1.1 | -85.2 |
| | CH 39 | 0.5 | -87.7 |
| | CH 78 | 0.4 | -87.7 |

| R | Channel | TRP (dBm) | TIS (dBm) |
|----------|---------|-----------|-----------|
| headform | CH 0 | -4.2 | -82.1 |
| | CH 39 | -3.4 | -83.1 |
| | CH 78 | -4.9 | -82.3 |



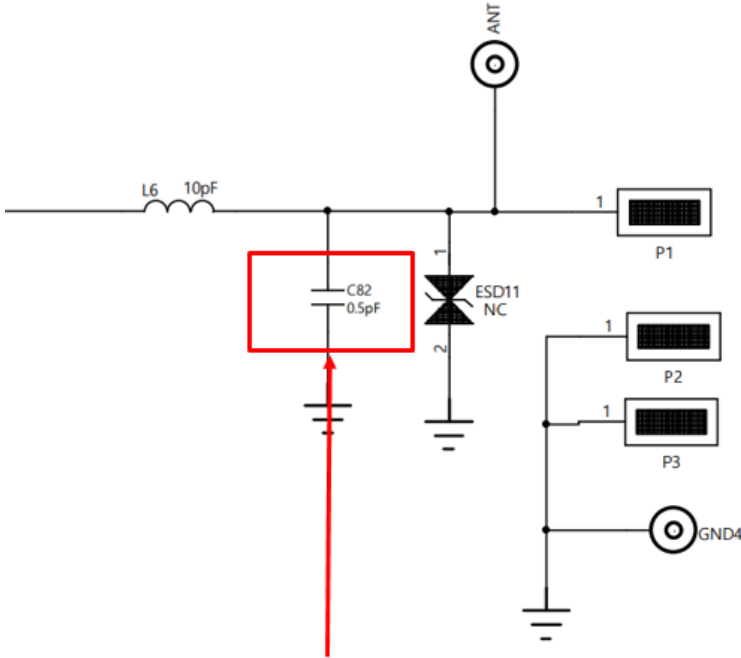
OTA Standard Chamber



III: Matching circuit

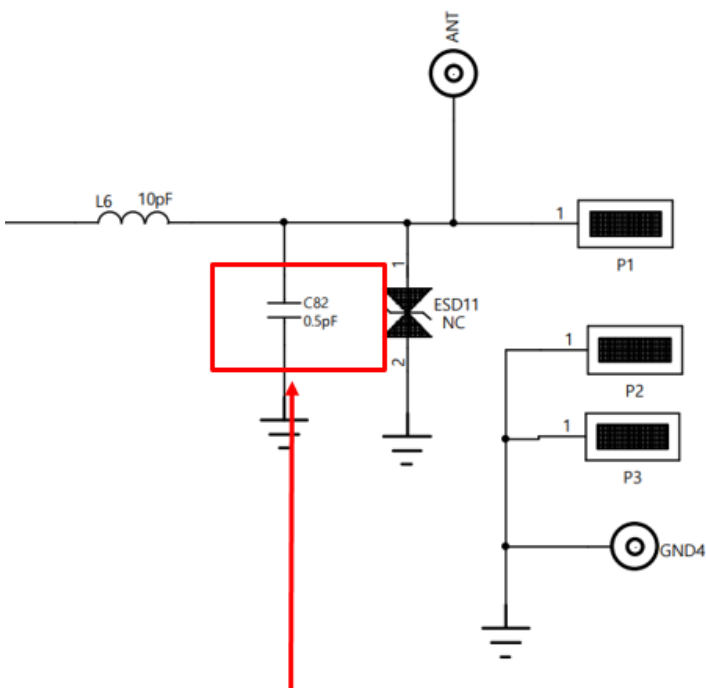
L-matching circuit

Left ear C82 changed to 1.8pF



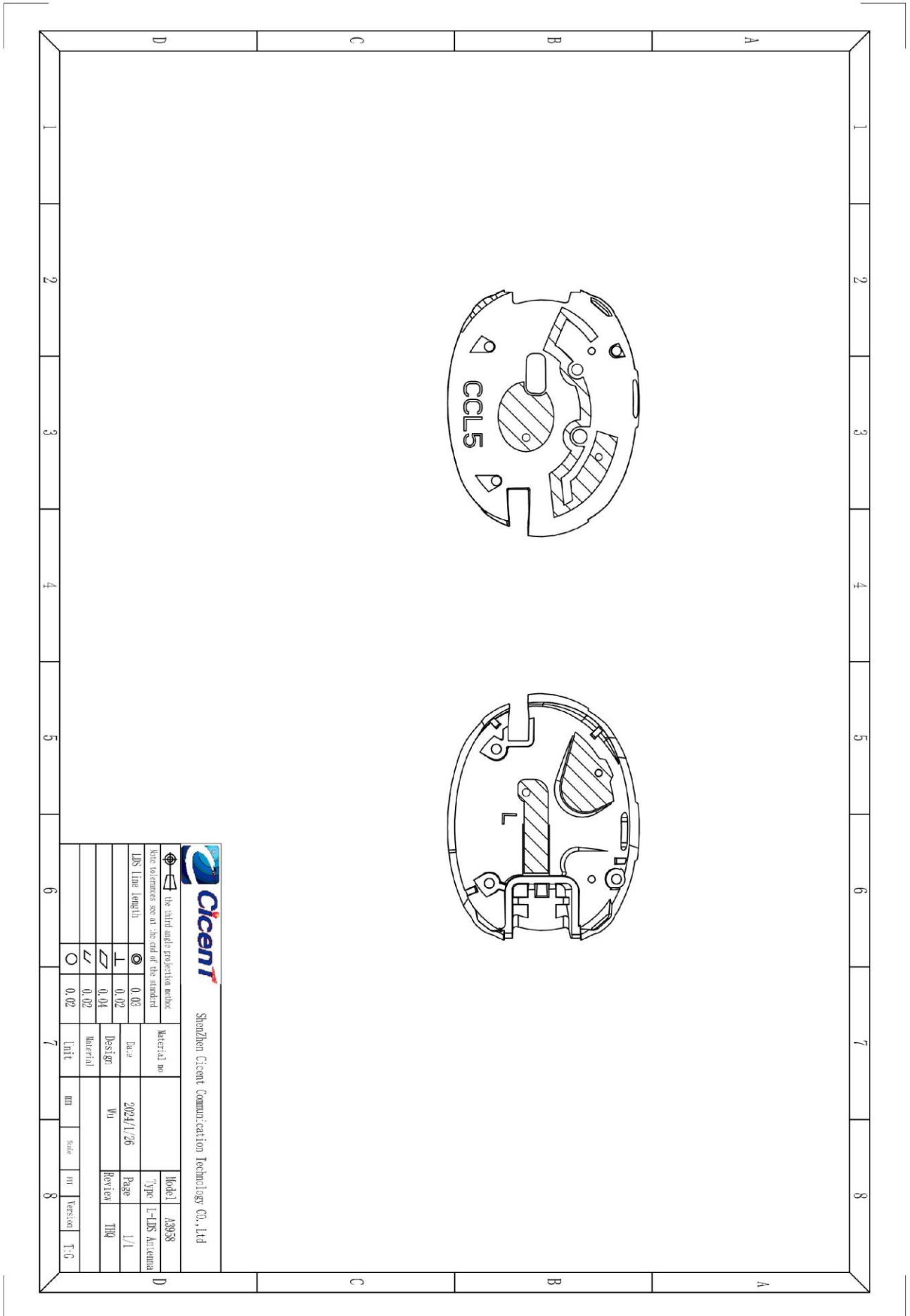
R-matching circuit

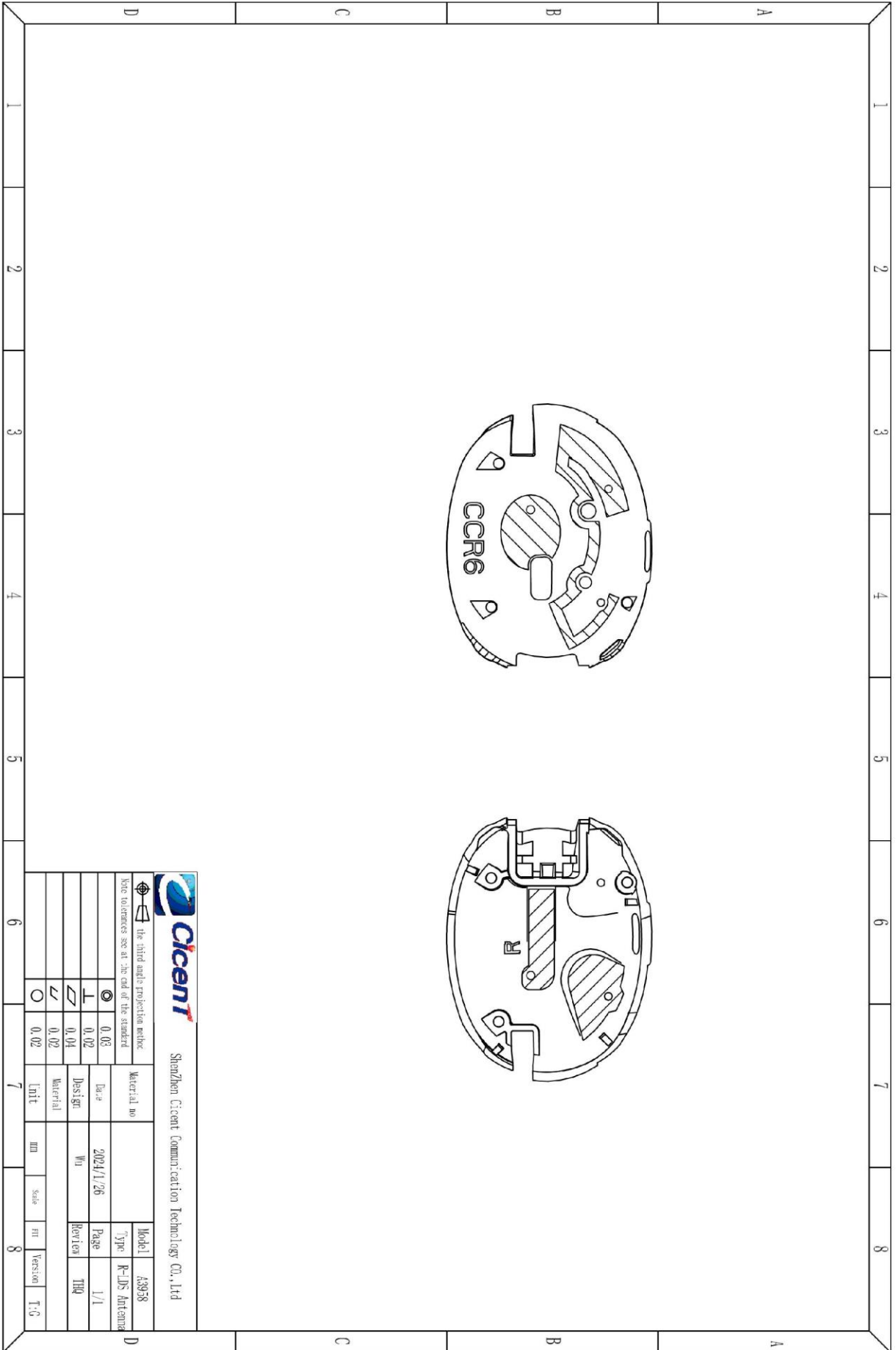
Right ear C82 changed to 2.2pF





IV: Structure file





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|--|---|---|--------------------|
| | | Shenzhen Cicent Communication Technology Co., Ltd | |
| | the third angle projection method | Material no | Model 43938 |
| | Basic tolerances see at the end of the standard | Design | Type R-LDS Antenna |
| | 0.08 | Date | 2024/1/26 |
| | 0.02 | Who | Page 1/1 |
| | 0.04 | Design | Revision TRQ |
| | 0.02 | Material | |
| | 0.02 | Unit | mm |
| | | Scale | 1:1 |
| | | Version | T-5 |