

# SPECIFICATION

## UNIMAXCOMM LTD

3501, HBC HuiLong Center Building-II Minzhi Street, Longhua, Shenzhen, P.R. China 518110

### L71 Antenna

#### Product approval sheet

|               |     |        |       |
|---------------|-----|--------|-------|
| Project Model | L71 | Colour | Black |
|---------------|-----|--------|-------|

Customer check:

Reach requirement of customer: ☒OK    ☐NG

Manufacturer company: INPAQ TECHNOLOGY(SUZHOU) CO., LTD.

Address: No.5 Chunqiu Road, Panyang Industrial Park, Huangdai, Xiangcheng District, Suzhou City

Contact information: 0512-6579988

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## 1 General description

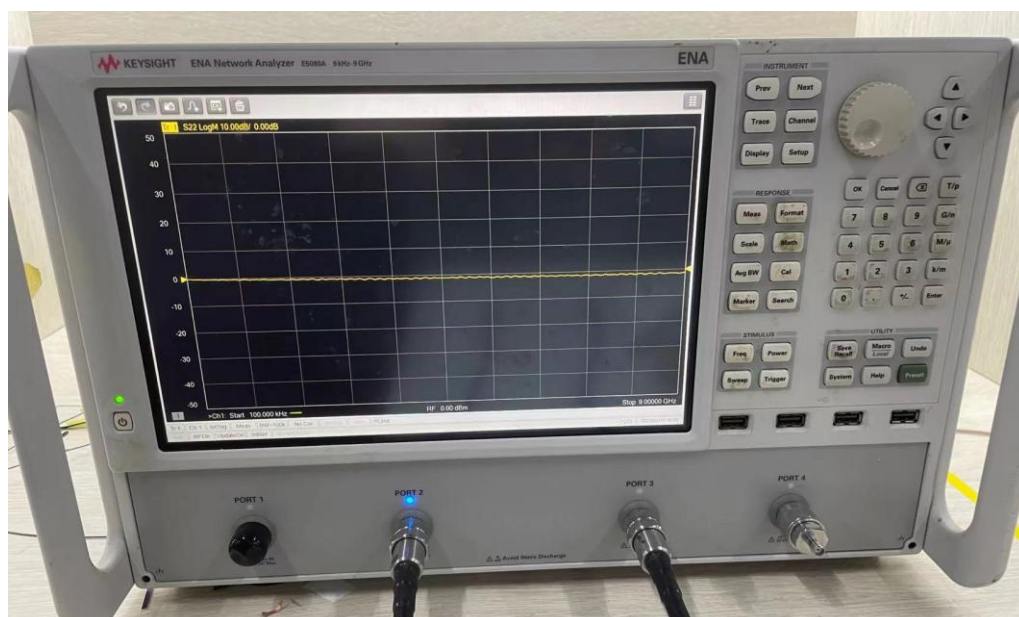
### 1.1 information of DUT

|                  |                  |
|------------------|------------------|
| Set Type         | Tablet           |
| Dimension        | 216*137.5*15.7mm |
| Band             |                  |
| Antenna Material | LDS              |

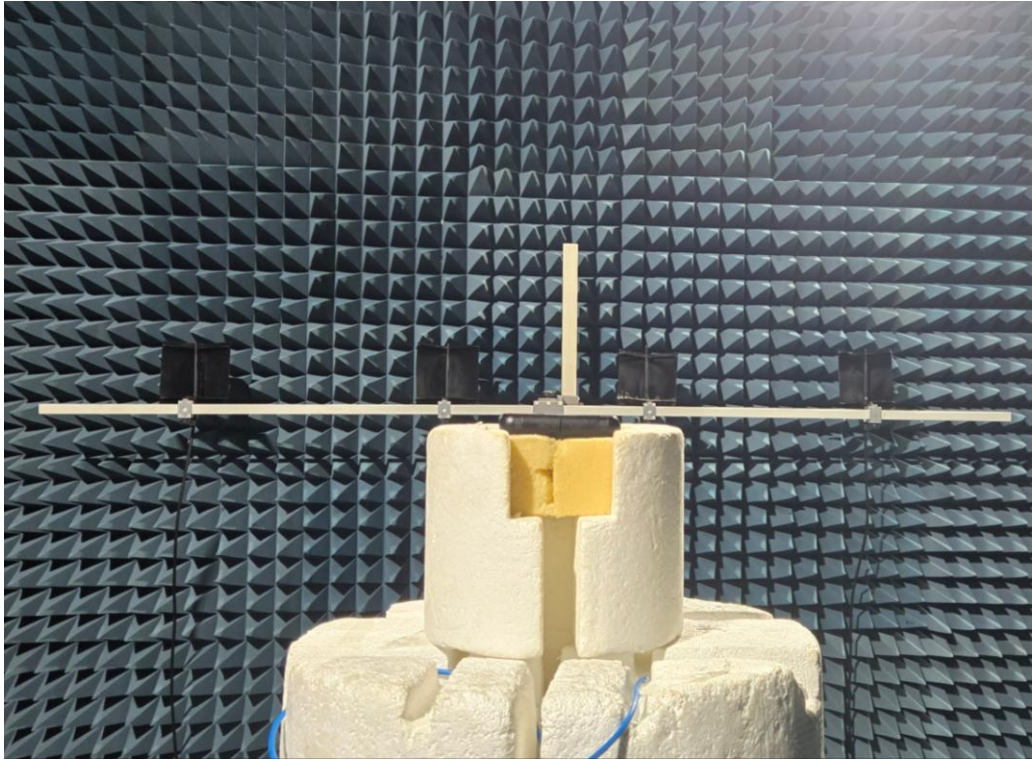
### 1.2 Photo of DUT

EUT appearing diagram

### 1.3 Antenna measurement method

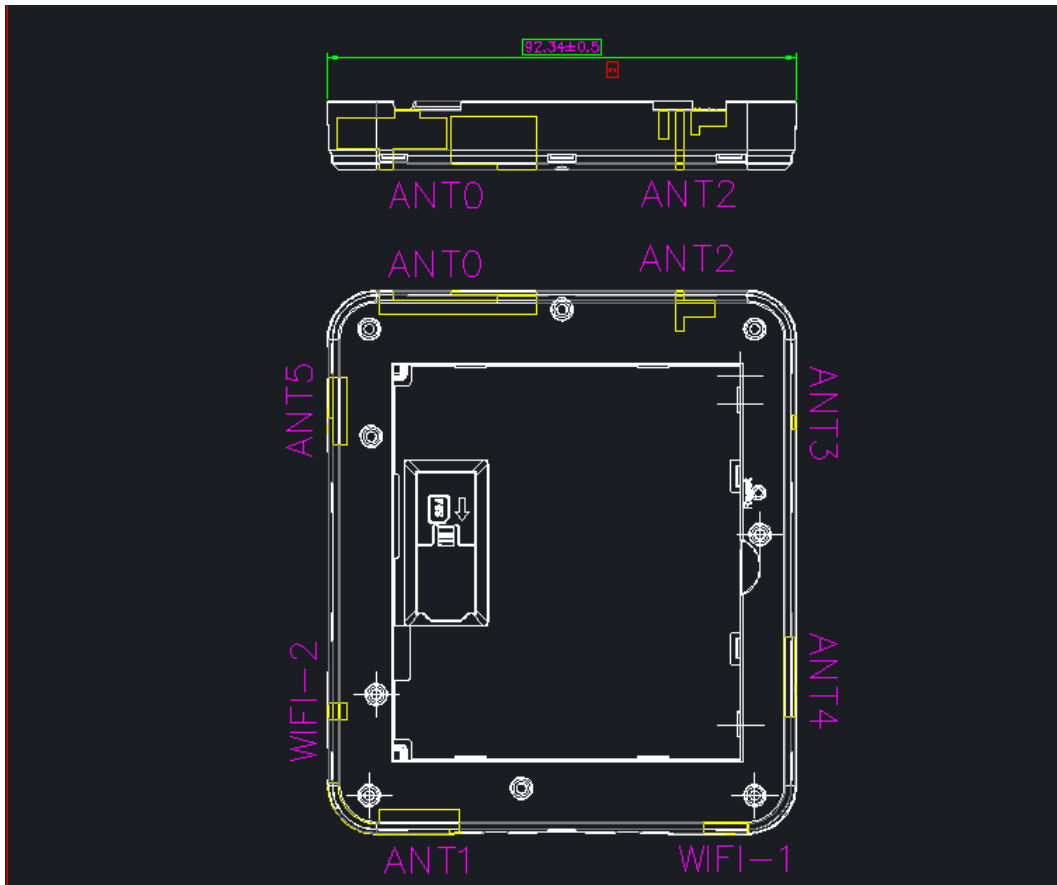


S11 measurement instrument



Microwave anechoic chamber experimental setup

## 1.4 Antenna appearing diagram



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# ELECTRICAL

Frequency: 617~960 / 1710~2200 /  
2300~2690 / 3300~4200 /  
5150~5925 /  
2400~2500 / 5150~5850 /  
5925~7125 MHz

| Revision | Engineering Change Description     | Date       | Owner |
|----------|------------------------------------|------------|-------|
| A        | New drawing Change release         | 2024/10/24 | SHLEE |
| B        | Change the battery slot tenon size | 2024/11/01 | SHLEE |
| C        | Change foam thickness              | 2024/11/14 | SHLEE |
| D        | Change Pattern                     | 2024/11/15 | SHLEE |
| A        | Change Pattern                     | 2024/12/27 | SHLEE |
| A        | Change the shape                   | 2025/03/05 | SHLEE |
| A        | Change Pattern(P3Pattern)          | 2025/07/16 | SHLEE |

※Mark□marked, for the  
key inspection size

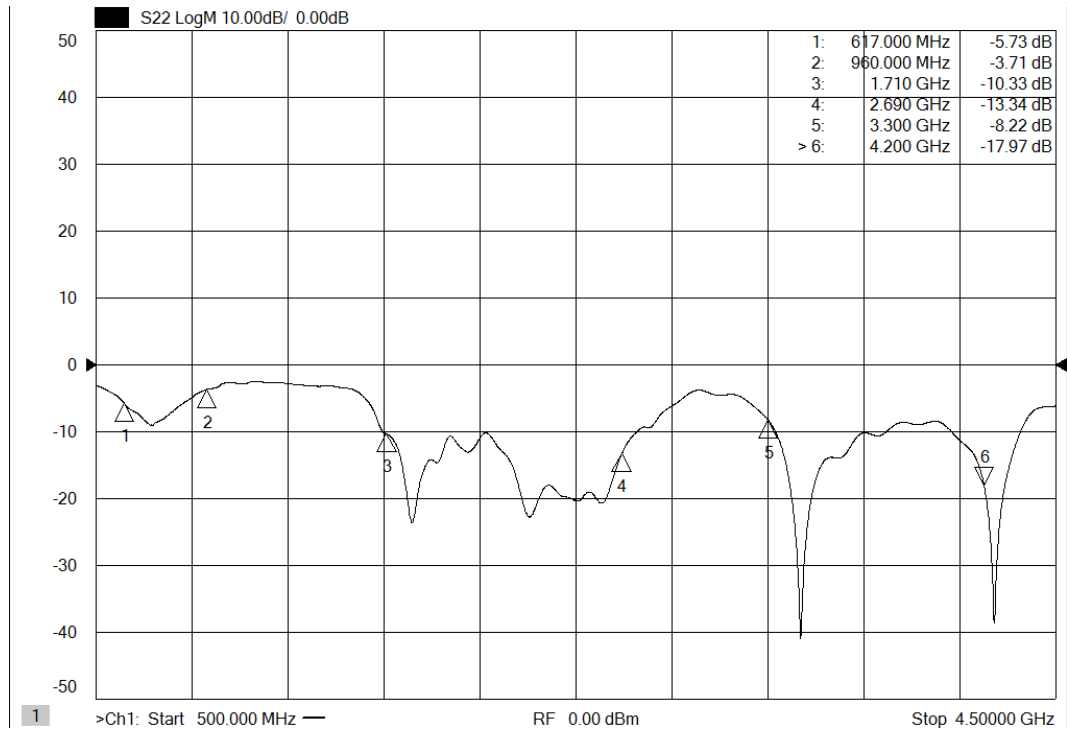
| INDEX      | PART NO. | DESCRIPTION                                                       | MATERIAL   | QTY | SPEC. CLASS       | SELECT           | CHG GENERATED DRAWING,<br>DO NOT MANUALLY UPDATE | SIZE | PART No.:<br>UNIT MM | DWG No.:<br>SCALE : NA | SHEET 1 OF 1 |
|------------|----------|-------------------------------------------------------------------|------------|-----|-------------------|------------------|--------------------------------------------------|------|----------------------|------------------------|--------------|
| A          | G        | EVA+Double Tape(3M9448)LG 7XW4X=1.2mm,Black                       |            | 2   |                   | V                |                                                  | A4   | RFLDA109200NNMB002   |                        |              |
| F          | Sponge   | EVA、EVA&RF(armature)/LSA V2+Double Tape(3M9448)F 10.4MMx7X1&Black |            | 1   | < 6mm             | A B C D          |                                                  |      |                      |                        |              |
| E          | Sponge   | EVA+Double Tape(3M9448)L5 6XW2.5X7 0.8mm ,Black                   |            | 2   | 6~30mm            | 0.08 0.2 0.5 1.5 |                                                  |      |                      |                        |              |
| D          | Sponge   | EVA+Double Tape(3M9448)L1 4ZXW3X7D 0.8mm ,Black                   |            | 1   | 30~120mm          | 0.12 0.3 0.8 2.0 |                                                  |      |                      |                        |              |
| C          | Sponge   | EVA+Double Tape(3M9448)L6 7XW4X=0.8mm ,Black                      |            | 1   | 120~15mm          | 0.25 0.5 1.2 3.0 |                                                  |      |                      |                        |              |
| B          | Sponge   | EVA+Double Tape(3M9448)Ø2.5X7=0.8mm ,Black                        |            | 1   | 315~100mm         | 0.3 0.8 2.0 5.0  |                                                  |      |                      |                        |              |
| A          | Cover    | Pattern、LDS&PES&N、IN2&PU、ALU&BRO                                  | LDA1092-ID | 1   | 1000~200mm        | 0.5 1.2 3.0 8.0  |                                                  |      |                      |                        |              |
| PARTS LIST |          |                                                                   |            |     | MATERIAL SEE NOTE |                  | APPROVED EASON                                   |      | 3RD ANGLE            |                        |              |
|            |          |                                                                   |            |     | FIRST             |                  | DRAWN                                            |      |                      |                        |              |
|            |          |                                                                   |            |     | ANGLE 10.5        |                  | CHECKED                                          |      |                      |                        |              |

## 2 Electrical performance

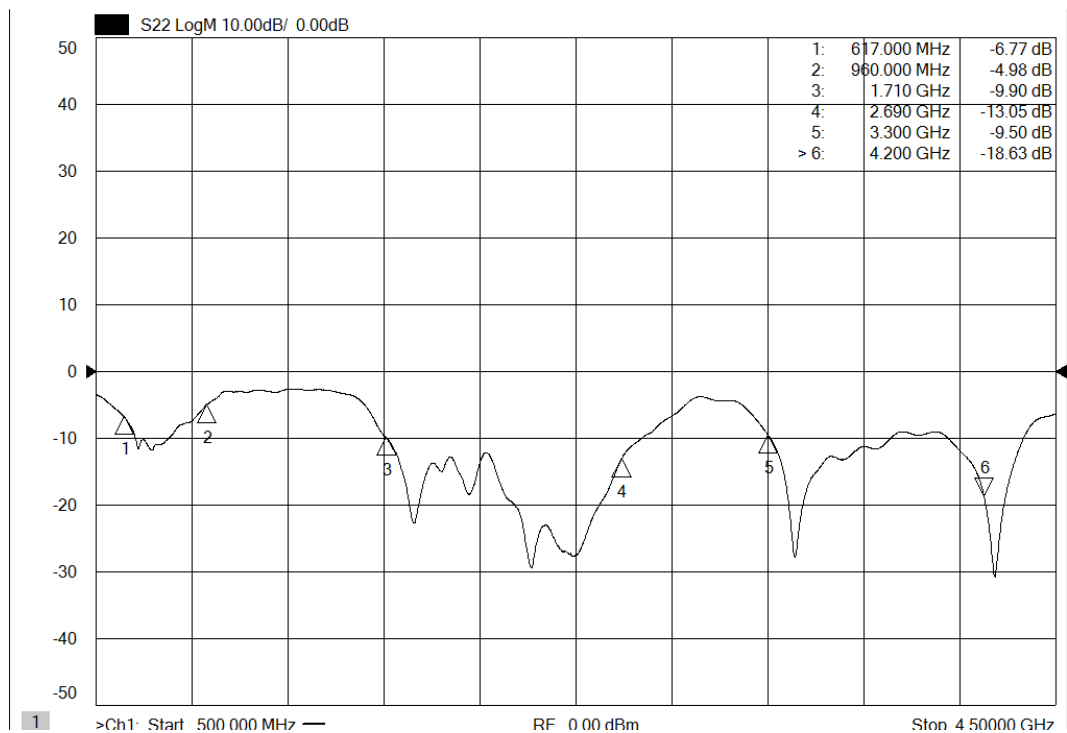
### 2.1 Passive result

#### 2.11 Return Loss

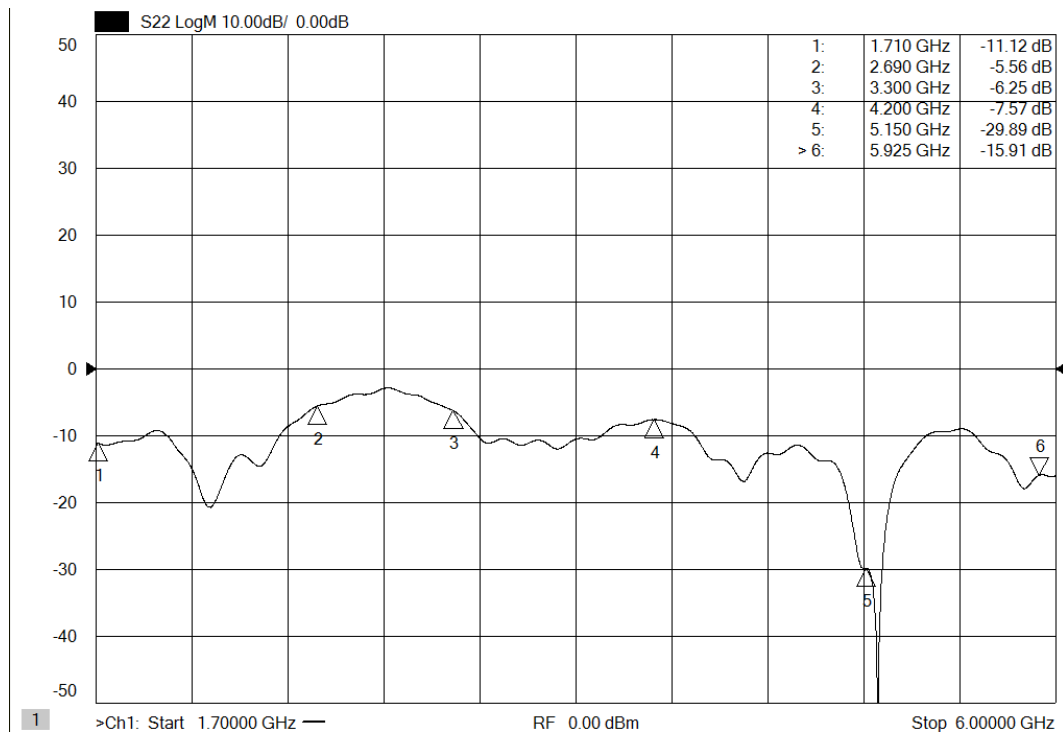
##### ANT0



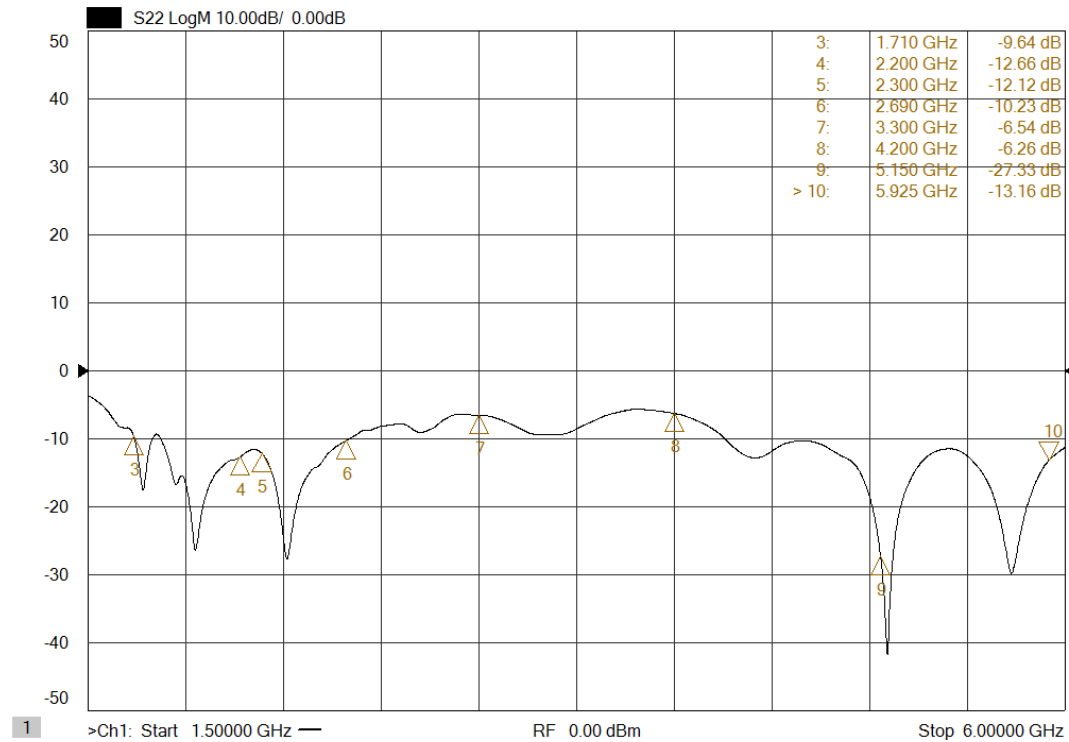
##### ANT1



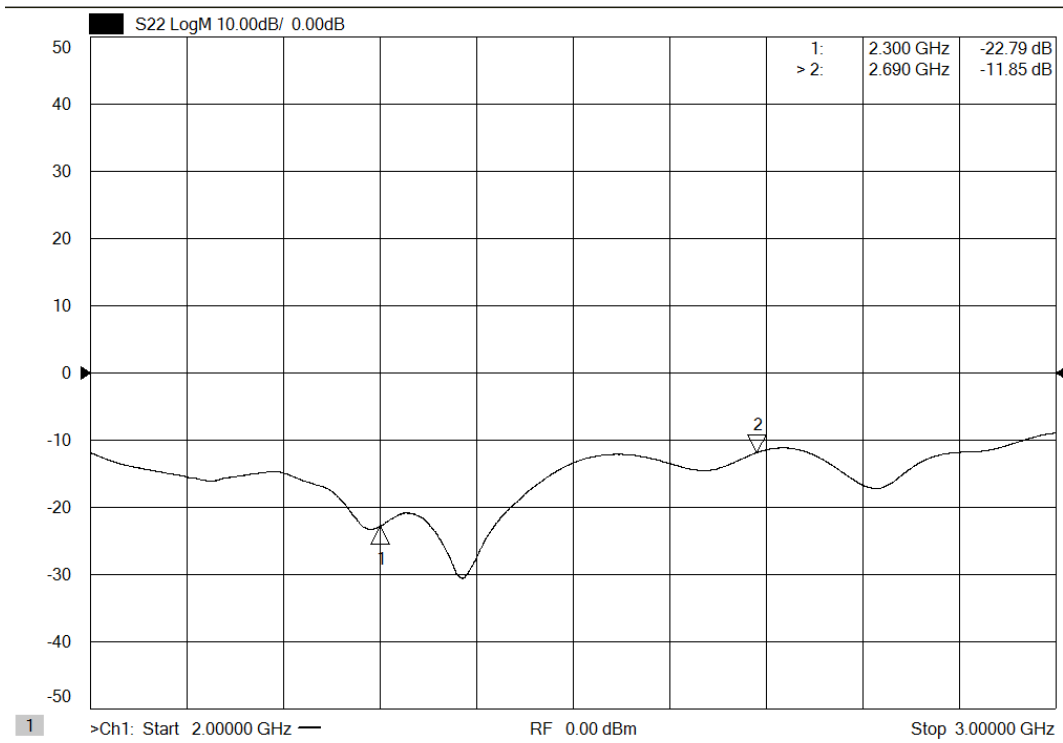
## ANT2



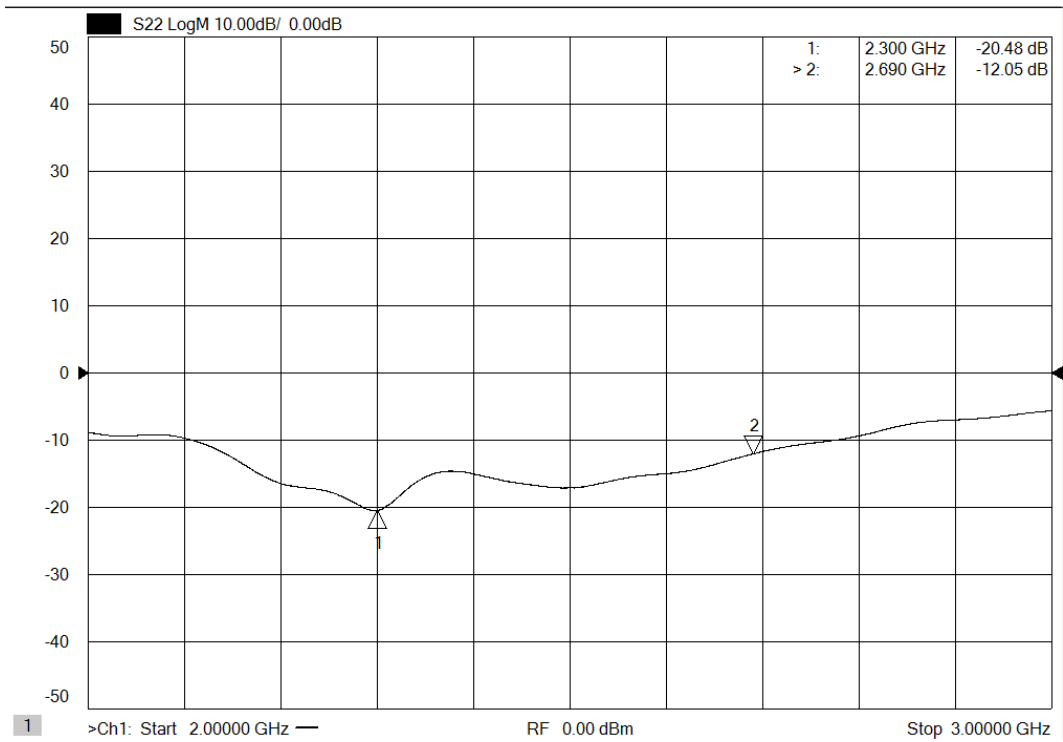
## ANT3



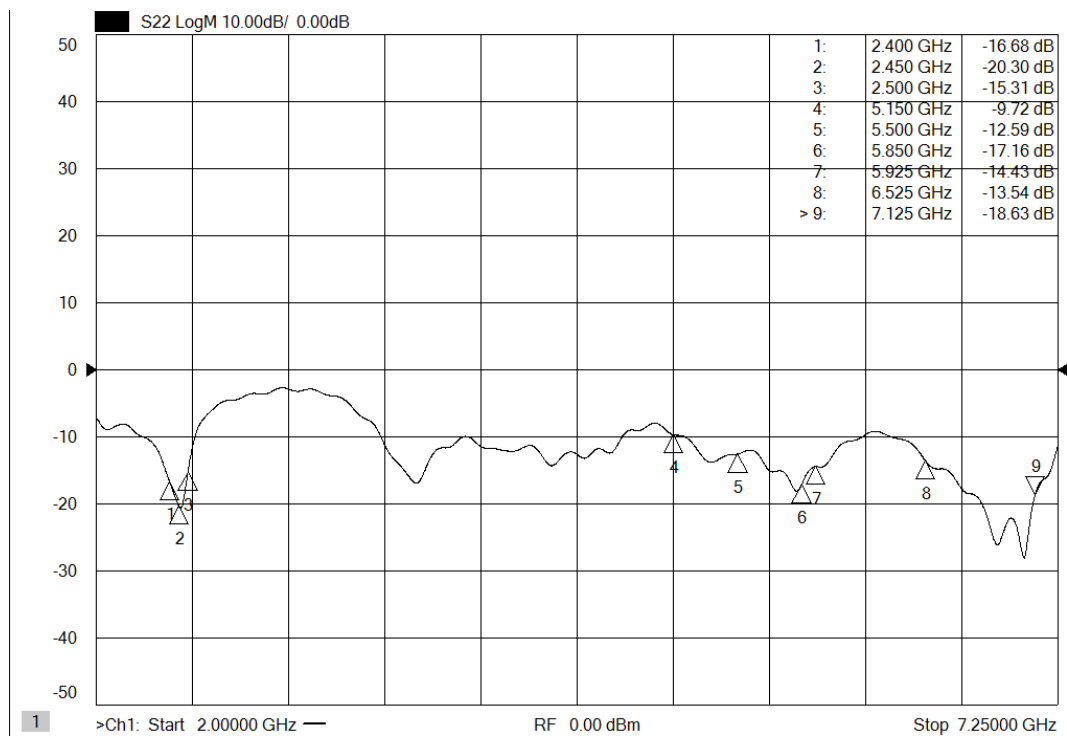
## ANT4



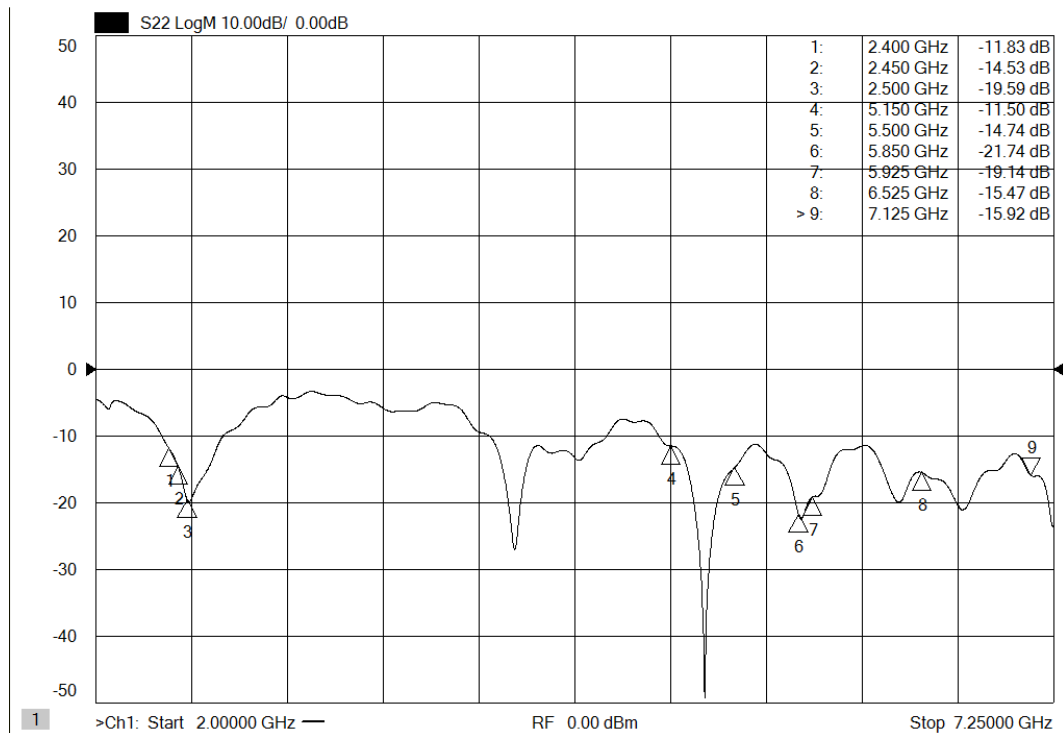
## ANT5



## WIFI-1



## WIFI-2



## 2.12 Efficiency & Gain

### Efficiency

|               | ANT0         | ANT1         | ANT2         | ANT3         | ANT4         | ANT5         | WIFI_1       | WIFI_2       |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Freq<br>(MHz) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) | Effi<br>(dB) |
| 600           | -8.04        | -7.30        |              |              |              |              |              |              |
| 610           | -7.67        | -6.22        |              |              |              |              |              |              |
| 620           | -6.25        | -6.16        |              |              |              |              |              |              |
| 630           | -5.95        | -5.85        |              |              |              |              |              |              |
| 640           | -5.95        | -5.67        |              |              |              |              |              |              |
| 650           | -5.95        | -6.33        |              |              |              |              |              |              |
| 660           | -6.31        | -5.69        |              |              |              |              |              |              |
| 670           | -5.63        | -5.85        |              |              |              |              |              |              |
| 680           | -5.34        | -4.88        |              |              |              |              |              |              |
| 690           | -4.65        | -5.15        |              |              |              |              |              |              |
| 700           | -5.22        | -4.86        |              |              |              |              |              |              |
| 710           | -5.05        | -4.34        |              |              |              |              |              |              |
| 720           | -5.54        | -4.15        |              |              |              |              |              |              |
| 730           | -5.72        | -5.02        |              |              |              |              |              |              |
| 740           | -4.57        | -3.99        |              |              |              |              |              |              |
| 750           | -5.07        | -4.70        |              |              |              |              |              |              |
| 760           | -4.36        | -4.06        |              |              |              |              |              |              |
| 770           | -4.81        | -4.33        |              |              |              |              |              |              |
| 780           | -4.12        | -4.43        |              |              |              |              |              |              |
| 790           | -4.49        | -4.67        |              |              |              |              |              |              |
| 800           | -4.57        | -3.63        |              |              |              |              |              |              |
| 810           | -3.49        | -3.35        |              |              |              |              |              |              |
| 820           | -3.75        | -3.41        |              |              |              |              |              |              |
| 830           | -4.52        | -4.15        |              |              |              |              |              |              |
| 840           | -4.12        | -4.05        |              |              |              |              |              |              |
| 850           | -4.44        | -3.53        |              |              |              |              |              |              |
| 860           | -3.97        | -3.85        |              |              |              |              |              |              |
| 870           | -3.98        | -4.10        |              |              |              |              |              |              |
| 880           | -4.43        | -3.98        |              |              |              |              |              |              |
| 890           | -4.81        | -3.97        |              |              |              |              |              |              |
| 900           | -4.87        | -3.70        |              |              |              |              |              |              |
| 910           | -4.70        | -4.22        |              |              |              |              |              |              |
| 920           | -4.23        | -4.19        |              |              |              |              |              |              |
| 930           | -3.98        | -3.78        |              |              |              |              |              |              |
| 940           | -3.61        | -4.51        |              |              |              |              |              |              |
| 950           | -4.12        | -3.93        |              |              |              |              |              |              |
| 960           | -4.44        | -4.86        |              |              |              |              |              |              |
| 1700          | -3.58        | -3.84        | -3.68        | -3.88        |              |              |              |              |
| 1720          | -4.86        | -4.22        | -4.44        | -4.50        |              |              |              |              |
| 1740          | -4.27        | -4.23        | -3.31        | -3.87        |              |              |              |              |
| 1760          | -3.75        | -4.44        | -4.31        | -3.97        |              |              |              |              |

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|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1780 | -4.31 | -3.77 | -4.66 | -3.59 |       |       |       |       |
| 1800 | -3.98 | -3.46 | -4.29 | -4.18 |       |       |       |       |
| 1820 | -3.87 | -4.18 | -4.60 | -3.39 |       |       |       |       |
| 1840 | -4.56 | -3.10 | -3.67 | -3.58 |       |       |       |       |
| 1860 | -4.23 | -3.31 | -3.01 | -3.13 |       |       |       |       |
| 1880 | -4.04 | -3.58 | -3.74 | -3.11 |       |       |       |       |
| 1900 | -4.69 | -4.22 | -4.16 | -3.08 |       |       |       |       |
| 1920 | -4.65 | -4.82 | -3.80 | -3.63 |       |       |       |       |
| 1940 | -4.93 | -3.52 | -3.18 | -3.96 |       |       |       |       |
| 1960 | -4.65 | -3.91 | -3.12 | -3.52 |       |       |       |       |
| 1980 | -4.56 | -3.66 | -3.57 | -3.44 |       |       |       |       |
| 2000 | -3.94 | -3.70 | -3.78 | -4.04 |       |       |       |       |
| 2020 | -4.53 | -4.18 | -3.28 | -3.39 |       |       |       |       |
| 2040 | -3.80 | -3.25 | -3.35 | -3.53 |       |       |       |       |
| 2060 | -3.73 | -4.21 | -3.88 | -2.97 |       |       |       |       |
| 2080 | -3.56 | -4.53 | -3.72 | -3.35 |       |       |       |       |
| 2100 | -3.97 | -3.82 | -4.17 | -3.18 |       |       |       |       |
| 2120 | -3.92 | -3.75 | -3.57 | -2.56 |       |       |       |       |
| 2140 | -4.05 | -3.92 | -4.09 | -2.62 |       |       |       |       |
| 2160 | -3.99 | -4.36 | -3.46 | -3.22 |       |       |       |       |
| 2180 | -4.71 | -3.69 | -3.51 | -2.83 |       |       |       |       |
| 2200 | -4.00 | -4.54 | -2.99 | -2.88 |       |       |       |       |
| 2220 | -4.47 | -4.02 | -4.73 | -2.69 |       |       |       |       |
| 2240 | -3.75 | -4.14 | -4.17 | -3.30 |       |       |       |       |
| 2260 | -3.68 | -4.56 | -4.73 | -3.38 |       |       |       |       |
| 2280 | -3.60 | -3.76 | -4.43 | -3.03 |       |       |       |       |
| 2300 | -3.93 | -4.52 | -3.54 | -2.84 | -3.32 | -3.12 |       |       |
| 2320 | -3.67 | -4.31 | -2.85 | -3.33 | -2.27 | -2.69 |       |       |
| 2340 | -3.48 | -3.94 | -3.08 | -2.99 | -2.44 | -2.32 |       |       |
| 2360 | -4.02 | -4.03 | -2.97 | -3.32 | -2.60 | -2.13 |       |       |
| 2380 | -4.63 | -4.45 | -2.63 | -3.59 | -2.41 | -2.59 |       |       |
| 2400 | -4.88 | -4.51 | -2.97 | -2.90 | -3.01 | -3.18 | -3.46 | -4.01 |
| 2420 | -4.14 | -4.50 | -3.23 | -2.74 | -2.45 | -3.27 | -3.38 | -3.81 |
| 2440 | -4.71 | -4.35 | -3.13 | -3.43 | -2.34 | -3.00 | -2.68 | -3.71 |
| 2460 | -4.64 | -4.06 | -2.41 | -2.63 | -2.21 | -2.59 | -2.87 | -3.56 |
| 2480 | -4.68 | -4.41 | -3.31 | -3.41 | -3.07 | -2.15 | -3.02 | -3.67 |
| 2500 | -4.07 | -4.37 | -3.17 | -3.24 | -3.03 | -2.64 | -3.24 | -3.37 |
| 2520 | -4.10 | -3.68 | -2.60 | -2.67 | -2.38 | -2.18 |       |       |
| 2540 | -3.28 | -3.44 | -2.73 | -2.55 | -2.54 | -2.28 |       |       |
| 2560 | -4.07 | -3.28 | -2.72 | -3.15 | -2.55 | -2.72 |       |       |
| 2580 | -4.14 | -4.01 | -2.85 | -2.83 | -2.87 | -3.06 |       |       |
| 2600 | -4.56 | -3.60 | -2.80 | -2.82 | -2.25 | -3.06 |       |       |
| 2620 | -4.24 | -3.62 | -2.79 | -3.44 | -2.76 | -2.69 |       |       |
| 2640 | -4.07 | -4.40 | -2.60 | -2.99 | -2.84 | -2.47 |       |       |
| 2660 | -3.67 | -3.87 | -2.65 | -3.00 | -2.80 | -2.91 |       |       |
| 2680 | -4.16 | -4.14 | -3.31 | -3.36 | -2.69 | -2.87 |       |       |
| 2700 | -4.67 | -4.02 | -3.40 | -3.92 | -3.24 | -2.39 |       |       |
| 3300 | -5.37 | -4.32 | -4.61 | -4.16 |       |       |       |       |

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|------|-------|-------|-------|-------|--|--|-------|-------|
| 3350 | -5.65 | -3.88 | -4.24 | -4.15 |  |  |       |       |
| 3400 | -5.24 | -4.05 | -4.47 | -3.87 |  |  |       |       |
| 3450 | -4.39 | -3.68 | -3.49 | -4.34 |  |  |       |       |
| 3500 | -3.83 | -4.21 | -3.88 | -4.46 |  |  |       |       |
| 3550 | -4.69 | -3.02 | -3.66 | -3.76 |  |  |       |       |
| 3600 | -4.20 | -3.59 | -3.04 | -3.80 |  |  |       |       |
| 3650 | -4.12 | -4.21 | -3.88 | -3.93 |  |  |       |       |
| 3700 | -4.53 | -4.18 | -3.22 | -2.98 |  |  |       |       |
| 3750 | -4.76 | -4.16 | -3.40 | -2.83 |  |  |       |       |
| 3800 | -4.92 | -4.87 | -3.85 | -2.86 |  |  |       |       |
| 3850 | -4.77 | -4.37 | -4.32 | -4.10 |  |  |       |       |
| 3900 | -4.34 | -4.40 | -4.53 | -4.57 |  |  |       |       |
| 3950 | -4.42 | -4.60 | -4.11 | -4.06 |  |  |       |       |
| 4000 | -4.67 | -4.36 | -4.09 | -3.58 |  |  |       |       |
| 4050 | -5.18 | -4.25 | -4.21 | -3.79 |  |  |       |       |
| 4100 | -5.25 | -4.71 | -4.10 | -3.58 |  |  |       |       |
| 4150 | -5.21 | -4.21 | -4.02 | -2.97 |  |  |       |       |
| 4200 | -5.75 | -4.41 | -4.14 | -3.48 |  |  |       |       |
| 5150 |       |       | -3.67 | -3.90 |  |  | -3.98 | -4.22 |
| 5200 |       |       | -3.57 | -3.71 |  |  | -3.49 | -2.98 |
| 5250 |       |       | -3.59 | -3.77 |  |  | -3.75 | -3.45 |
| 5300 |       |       | -3.47 | -3.58 |  |  | -3.41 | -3.90 |
| 5350 |       |       | -3.32 | -3.43 |  |  | -4.35 | -4.19 |
| 5400 |       |       | -3.54 | -3.54 |  |  | -4.00 | -3.72 |
| 5450 |       |       | -3.67 | -3.16 |  |  | -4.37 | -3.58 |
| 5500 |       |       | -3.93 | -3.27 |  |  | -3.86 | -3.62 |
| 5550 |       |       | -3.56 | -3.41 |  |  | -3.89 | -3.74 |
| 5600 |       |       | -3.98 | -3.79 |  |  | -3.67 | -3.87 |
| 5650 |       |       | -3.56 | -3.87 |  |  | -4.52 | -4.11 |
| 5700 |       |       | -3.77 | -3.72 |  |  | -3.02 | -3.50 |
| 5750 |       |       | -3.85 | -3.82 |  |  | -2.93 | -3.65 |
| 5800 |       |       | -3.44 | -3.09 |  |  | -3.65 | -4.03 |
| 5850 |       |       | -3.12 | -3.81 |  |  | -3.59 | -3.64 |
| 5900 |       |       | -3.34 | -3.43 |  |  | -3.95 | -3.76 |
| 5950 |       |       |       |       |  |  | -3.81 | -4.38 |
| 6000 |       |       |       |       |  |  | -4.05 | -3.79 |
| 6050 |       |       |       |       |  |  | -3.63 | -4.34 |
| 6100 |       |       |       |       |  |  | -3.59 | -3.42 |
| 6150 |       |       |       |       |  |  | -3.75 | -3.37 |
| 6200 |       |       |       |       |  |  | -4.11 | -3.87 |
| 6250 |       |       |       |       |  |  | -4.06 | -3.99 |
| 6300 |       |       |       |       |  |  | -3.35 | -4.49 |
| 6350 |       |       |       |       |  |  | -3.55 | -4.14 |
| 6400 |       |       |       |       |  |  | -3.26 | -4.12 |
| 6450 |       |       |       |       |  |  | -4.66 | -4.32 |
| 6500 |       |       |       |       |  |  | -4.75 | -4.98 |
| 6550 |       |       |       |       |  |  | -4.70 | -4.11 |
| 6600 |       |       |       |       |  |  | -5.09 | -4.86 |

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|      |  |  |  |  |  |  |       |       |
|------|--|--|--|--|--|--|-------|-------|
| 6650 |  |  |  |  |  |  | -4.78 | -4.41 |
| 6700 |  |  |  |  |  |  | -4.62 | -4.54 |
| 6750 |  |  |  |  |  |  | -4.20 | -4.52 |
| 6800 |  |  |  |  |  |  | -4.53 | -4.61 |
| 6850 |  |  |  |  |  |  | -5.02 | -5.03 |
| 6900 |  |  |  |  |  |  | -4.36 | -4.89 |
| 6950 |  |  |  |  |  |  | -4.44 | -4.57 |
| 7000 |  |  |  |  |  |  | -4.27 | -4.64 |
| 7050 |  |  |  |  |  |  | -4.08 | -4.97 |
| 7100 |  |  |  |  |  |  | -3.72 | -4.82 |
| 7150 |  |  |  |  |  |  | -4.16 | -4.30 |

## Gain

|            | ANT0      | ANT1      | ANT2      | ANT3      | ANT4      | ANT5      | wifi_1    | wifi_2    |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Freq (MHz) | Gain (dB) | Gain (dB) | Gain (dB) | Gain (dB) | Gain (dB) | Gain (dB) | Gain (dB) | Gain (dB) |
| 600        | -3.12     | -3.02     |           |           |           |           |           |           |
| 610        | -2.33     | -3.15     |           |           |           |           |           |           |
| 620        | -2.21     | -2.51     |           |           |           |           |           |           |
| 630        | -1.98     | -2.06     |           |           |           |           |           |           |
| 640        | -2.12     | -1.61     |           |           |           |           |           |           |
| 650        | -1.73     | -1.81     |           |           |           |           |           |           |
| 660        | -1.03     | -1.55     |           |           |           |           |           |           |
| 670        | -0.28     | 0.38      |           |           |           |           |           |           |
| 680        | 1.09      | -0.02     |           |           |           |           |           |           |
| 690        | 0.86      | 0.74      |           |           |           |           |           |           |
| 700        | 1.60      | -0.31     |           |           |           |           |           |           |
| 710        | -0.52     | -0.04     |           |           |           |           |           |           |
| 720        | -0.07     | -0.90     |           |           |           |           |           |           |
| 730        | -1.06     | -0.85     |           |           |           |           |           |           |
| 740        | 1.08      | 0.44      |           |           |           |           |           |           |
| 750        | 0.29      | -0.42     |           |           |           |           |           |           |
| 760        | -0.97     | -1.02     |           |           |           |           |           |           |
| 770        | -0.68     | -0.10     |           |           |           |           |           |           |
| 780        | 0.01      | 0.29      |           |           |           |           |           |           |
| 790        | 0.76      | 0.15      |           |           |           |           |           |           |
| 800        | 1.44      | 0.86      |           |           |           |           |           |           |
| 810        | 1.05      | 1.19      |           |           |           |           |           |           |
| 820        | 1.47      | 1.32      |           |           |           |           |           |           |
| 830        | 1.64      | 0.56      |           |           |           |           |           |           |
| 840        | 1.99      | 0.57      |           |           |           |           |           |           |
| 850        | 1.02      | 0.57      |           |           |           |           |           |           |
| 860        | 1.27      | 1.11      |           |           |           |           |           |           |
| 870        | 2.21      | 1.10      |           |           |           |           |           |           |
| 880        | 1.29      | 1.52      |           |           |           |           |           |           |
| 890        | 0.13      | 1.28      |           |           |           |           |           |           |
| 900        | 1.19      | 1.60      |           |           |           |           |           |           |

Confidential Information

|      |      |      |       |      |      |      |      |      |
|------|------|------|-------|------|------|------|------|------|
| 910  | 1.46 | 0.98 |       |      |      |      |      |      |
| 920  | 0.55 | 1.81 |       |      |      |      |      |      |
| 930  | 0.61 | 0.38 |       |      |      |      |      |      |
| 940  | 1.94 | 1.13 |       |      |      |      |      |      |
| 950  | 1.39 | 0.40 |       |      |      |      |      |      |
| 960  | 1.46 | 1.07 |       |      |      |      |      |      |
| 1700 | 1.55 | 0.56 | 2.47  | 0.70 |      |      |      |      |
| 1720 | 1.33 | 1.77 | 1.85  | 0.76 |      |      |      |      |
| 1740 | 2.72 | 1.11 | 0.64  | 0.57 |      |      |      |      |
| 1760 | 1.17 | 1.09 | 0.78  | 0.68 |      |      |      |      |
| 1780 | 1.62 | 1.91 | 1.17  | 0.96 |      |      |      |      |
| 1800 | 2.81 | 2.01 | -0.01 | 0.04 |      |      |      |      |
| 1820 | 3.50 | 1.64 | 1.08  | 1.27 |      |      |      |      |
| 1840 | 2.72 | 1.07 | 1.62  | 1.63 |      |      |      |      |
| 1860 | 2.27 | 1.04 | 1.43  | 2.21 |      |      |      |      |
| 1880 | 1.05 | 1.79 | 0.59  | 0.83 |      |      |      |      |
| 1900 | 1.56 | 1.20 | 0.91  | 0.92 |      |      |      |      |
| 1920 | 0.33 | 1.59 | 1.57  | 2.16 |      |      |      |      |
| 1940 | 0.36 | 2.17 | 2.04  | 1.39 |      |      |      |      |
| 1960 | 1.25 | 2.20 | 0.72  | 1.08 |      |      |      |      |
| 1980 | 1.32 | 1.42 | 1.43  | 0.92 |      |      |      |      |
| 2000 | 1.79 | 1.32 | 2.18  | 1.63 |      |      |      |      |
| 2020 | 1.93 | 1.19 | 2.49  | 1.33 |      |      |      |      |
| 2040 | 2.10 | 0.36 | 1.35  | 1.83 |      |      |      |      |
| 2060 | 1.58 | 0.02 | 0.84  | 1.79 |      |      |      |      |
| 2080 | 1.76 | 0.05 | 0.49  | 1.48 |      |      |      |      |
| 2100 | 1.48 | 0.45 | 1.24  | 2.17 |      |      |      |      |
| 2120 | 1.65 | 1.84 | 1.07  | 2.39 |      |      |      |      |
| 2140 | 1.09 | 2.44 | 2.53  | 2.48 |      |      |      |      |
| 2160 | 1.43 | 1.36 | 2.31  | 2.79 |      |      |      |      |
| 2180 | 1.86 | 1.79 | 3.33  | 2.68 |      |      |      |      |
| 2200 | 1.94 | 1.84 | 2.53  | 2.55 |      |      |      |      |
| 2220 | 0.97 | 2.87 | -4.50 | 4.88 |      |      |      |      |
| 2240 | 0.95 | 2.60 | -4.24 | 3.44 |      |      |      |      |
| 2260 | 0.83 | 2.87 | -4.77 | 4.78 |      |      |      |      |
| 2280 | 0.14 | 0.72 | -3.96 | 3.97 |      |      |      |      |
| 2300 | 1.44 | 1.36 | 2.19  | 2.54 | 1.95 | 3.19 |      |      |
| 2320 | 0.98 | 1.38 | 0.94  | 2.19 | 2.94 | 3.52 |      |      |
| 2340 | 1.32 | 1.11 | 2.30  | 1.84 | 2.99 | 3.38 |      |      |
| 2360 | 1.50 | 1.45 | 2.79  | 2.42 | 2.99 | 3.45 |      |      |
| 2380 | 1.84 | 1.08 | 1.61  | 3.88 | 3.47 | 3.94 |      |      |
| 2400 | 1.78 | 1.71 | 0.85  | 3.04 | 3.39 | 3.41 | 2.15 | 1.97 |
| 2420 | 2.13 | 1.42 | 2.24  | 3.52 | 2.71 | 3.24 | 2.12 | 1.60 |
| 2440 | 1.95 | 1.26 | 1.46  | 3.18 | 3.53 | 3.52 | 2.79 | 1.79 |
| 2460 | 1.11 | 1.73 | 2.39  | 3.79 | 3.63 | 2.43 | 3.40 | 2.24 |
| 2480 | 0.81 | 1.59 | 2.15  | 3.04 | 3.55 | 2.51 | 3.36 | 2.90 |
| 2500 | 1.83 | 0.91 | 1.78  | 3.03 | 3.58 | 2.23 | 3.67 | 3.13 |
| 2520 | 1.15 | 1.14 | 2.91  | 3.04 | 3.75 | 2.11 |      |      |

Confidential Information

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 2540 | 1.88 | 1.14 | 2.77 | 3.39 | 3.36 | 2.41 |      |      |
| 2560 | 1.57 | 0.62 | 2.06 | 3.21 | 3.65 | 2.33 |      |      |
| 2580 | 2.62 | 2.67 | 1.66 | 3.27 | 4.24 | 4.14 |      |      |
| 2600 | 1.60 | 1.57 | 1.88 | 3.09 | 4.47 | 3.48 |      |      |
| 2620 | 1.10 | 3.33 | 3.01 | 3.19 | 4.65 | 3.15 |      |      |
| 2640 | 1.30 | 3.50 | 2.83 | 3.10 | 4.63 | 3.35 |      |      |
| 2660 | 1.30 | 2.15 | 1.92 | 2.81 | 4.51 | 3.38 |      |      |
| 2680 | 1.59 | 2.80 | 1.66 | 2.03 | 3.91 | 2.19 |      |      |
| 2700 | 1.16 | 1.17 | 2.63 | 1.83 | 4.06 | 2.62 |      |      |
| 3300 | 1.02 | 3.32 | 1.39 | 1.49 |      |      |      |      |
| 3350 | 1.62 | 2.84 | 1.11 | 1.29 |      |      |      |      |
| 3400 | 1.41 | 1.83 | 1.34 | 1.67 |      |      |      |      |
| 3450 | 1.99 | 2.32 | 0.67 | 1.93 |      |      |      |      |
| 3500 | 1.70 | 3.24 | 1.18 | 1.43 |      |      |      |      |
| 3550 | 1.39 | 4.40 | 1.60 | 1.95 |      |      |      |      |
| 3600 | 1.79 | 3.36 | 0.76 | 1.84 |      |      |      |      |
| 3650 | 2.14 | 3.88 | 1.33 | 1.48 |      |      |      |      |
| 3700 | 2.20 | 3.80 | 1.59 | 2.10 |      |      |      |      |
| 3750 | 2.46 | 3.22 | 1.63 | 1.84 |      |      |      |      |
| 3800 | 2.19 | 3.44 | 1.11 | 2.04 |      |      |      |      |
| 3850 | 2.02 | 3.25 | 1.26 | 1.88 |      |      |      |      |
| 3900 | 1.88 | 2.04 | 1.38 | 1.37 |      |      |      |      |
| 3950 | 2.02 | 1.88 | 1.61 | 0.82 |      |      |      |      |
| 4000 | 2.25 | 1.52 | 0.69 | 0.62 |      |      |      |      |
| 4050 | 2.11 | 2.78 | 1.64 | 0.89 |      |      |      |      |
| 4100 | 2.26 | 2.51 | 1.73 | 1.14 |      |      |      |      |
| 4150 | 2.86 | 2.04 | 1.89 | 1.84 |      |      |      |      |
| 4200 | 2.76 | 2.59 | 1.57 | 1.23 |      |      |      |      |
| 5150 |      |      | 3.33 | 2.11 |      |      | 1.24 | 1.72 |
| 5200 |      |      | 3.26 | 2.23 |      |      | 1.54 | 1.94 |
| 5250 |      |      | 3.12 | 2.57 |      |      | 2.48 | 2.57 |
| 5300 |      |      | 3.39 | 2.22 |      |      | 1.99 | 1.02 |
| 5350 |      |      | 2.94 | 2.49 |      |      | 2.81 | 1.18 |
| 5400 |      |      | 2.98 | 2.90 |      |      | 1.71 | 1.83 |
| 5450 |      |      | 3.23 | 2.85 |      |      | 2.20 | 2.08 |
| 5500 |      |      | 3.59 | 2.70 |      |      | 2.62 | 1.74 |
| 5550 |      |      | 3.84 | 2.86 |      |      | 2.17 | 2.40 |
| 5600 |      |      | 3.71 | 2.30 |      |      | 2.84 | 2.46 |
| 5650 |      |      | 3.94 | 2.63 |      |      | 2.50 | 2.45 |
| 5700 |      |      | 4.33 | 1.92 |      |      | 2.83 | 1.60 |
| 5750 |      |      | 4.20 | 1.85 |      |      | 3.09 | 2.36 |
| 5800 |      |      | 4.32 | 2.28 |      |      | 2.57 | 1.69 |
| 5850 |      |      | 3.95 | 2.46 |      |      | 2.91 | 2.01 |
| 5900 |      |      | 3.20 | 2.52 |      |      | 2.82 | 1.67 |
| 5950 |      |      |      |      |      |      | 2.64 | 2.10 |
| 6000 |      |      |      |      |      |      | 2.96 | 2.52 |
| 6050 |      |      |      |      |      |      | 2.36 | 3.97 |
| 6100 |      |      |      |      |      |      | 2.73 | 4.35 |

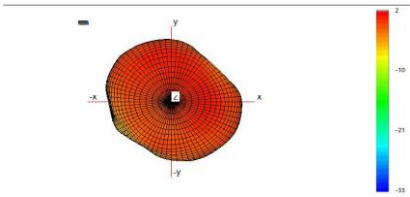
# Confidential Information

|      |  |  |  |  |  |  |       |       |
|------|--|--|--|--|--|--|-------|-------|
| 6150 |  |  |  |  |  |  | 2. 50 | 4. 07 |
| 6200 |  |  |  |  |  |  | 2. 69 | 3. 65 |
| 6250 |  |  |  |  |  |  | 2. 45 | 2. 83 |
| 6300 |  |  |  |  |  |  | 2. 28 | 2. 56 |
| 6350 |  |  |  |  |  |  | 3. 08 | 3. 68 |
| 6400 |  |  |  |  |  |  | 3. 70 | 4. 13 |
| 6450 |  |  |  |  |  |  | 3. 39 | 3. 80 |
| 6500 |  |  |  |  |  |  | 3. 13 | 4. 35 |
| 6550 |  |  |  |  |  |  | 3. 20 | 2. 78 |
| 6600 |  |  |  |  |  |  | 3. 52 | 3. 19 |
| 6650 |  |  |  |  |  |  | 3. 53 | 2. 74 |
| 6700 |  |  |  |  |  |  | 3. 98 | 1. 71 |
| 6750 |  |  |  |  |  |  | 2. 78 | 2. 35 |
| 6800 |  |  |  |  |  |  | 2. 10 | 1. 74 |
| 6850 |  |  |  |  |  |  | 2. 89 | 1. 13 |
| 6900 |  |  |  |  |  |  | 1. 55 | 1. 80 |
| 6950 |  |  |  |  |  |  | 1. 57 | 1. 21 |
| 7000 |  |  |  |  |  |  | 1. 96 | 1. 25 |
| 7050 |  |  |  |  |  |  | 1. 89 | 1. 64 |
| 7100 |  |  |  |  |  |  | 1. 81 | 1. 75 |
| 7150 |  |  |  |  |  |  | 2. 34 | 1. 96 |

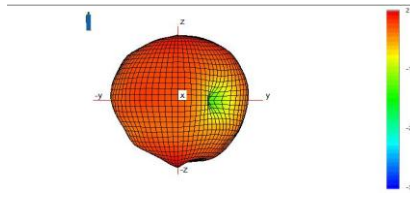
## 2.2 3D Pattern

ANT0\_820MHz

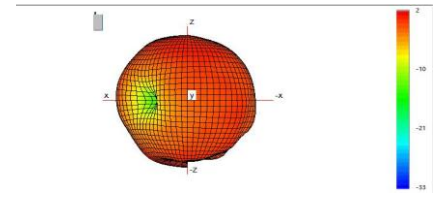
**H plane**



**E1 plane**

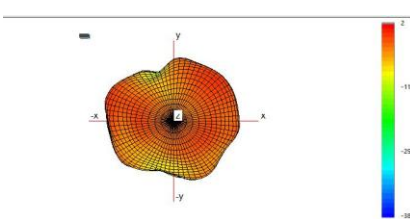


**E2 plane**

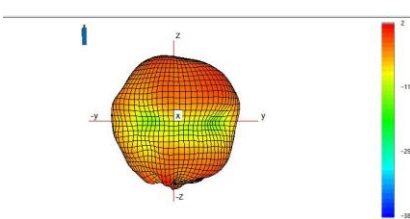


ANT0\_2200MHz

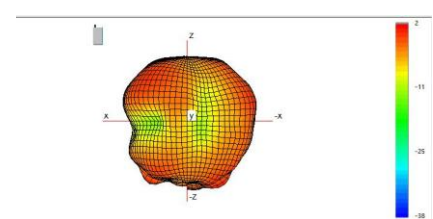
**H plane**



**E1 plane**

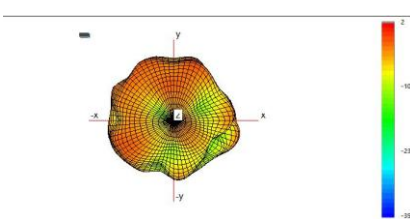


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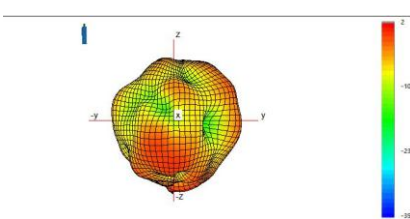


ANT0\_3750MHz

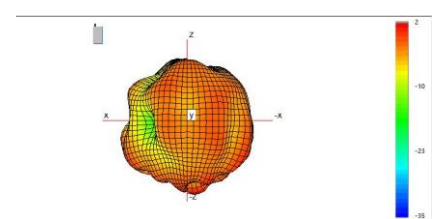
**H plane**



**E1 plane**

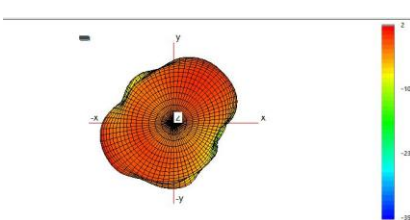


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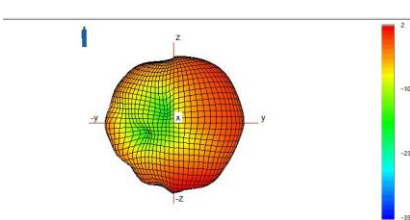


ANT1\_820MHz

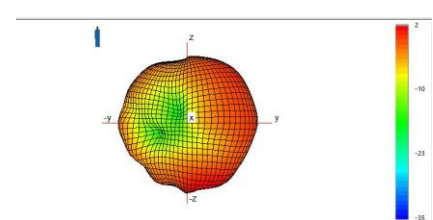
**H plane**



**E1 plane**

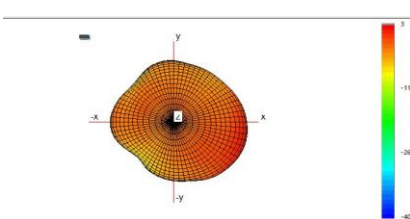


**E2 plane**

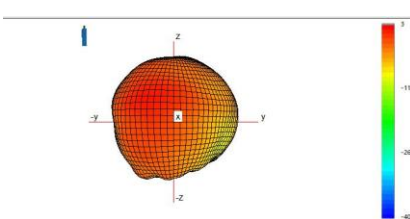


ANT1\_2200MHz

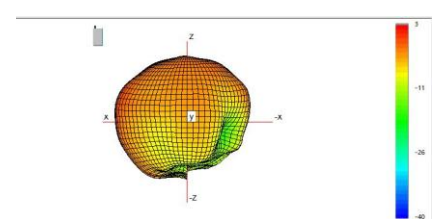
**H plane**



**E1 plane**

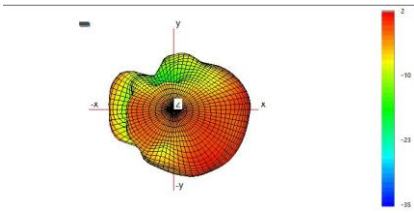


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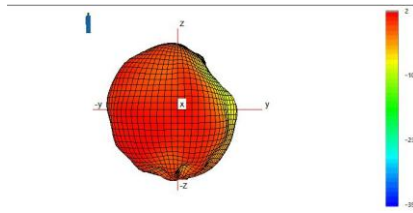


ANT1\_3750MHz

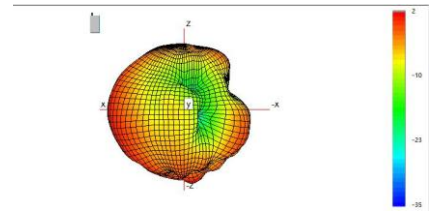
**H plane**



**E1 plane**

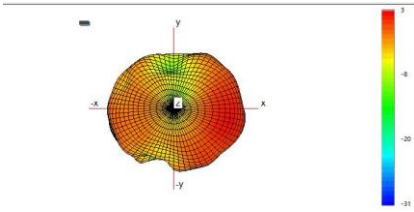


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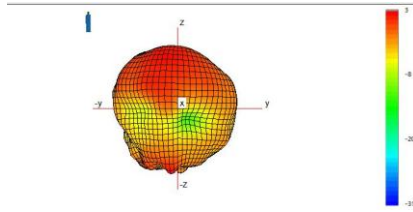


ANT2\_2200MHz

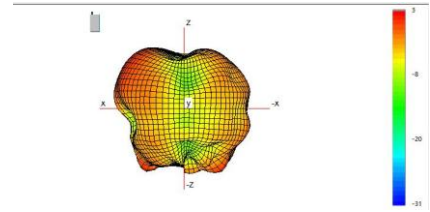
**H plane**



**E1 plane**

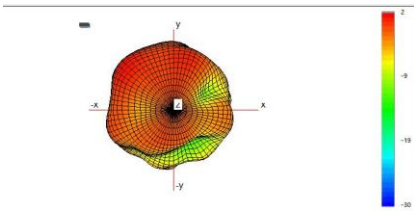


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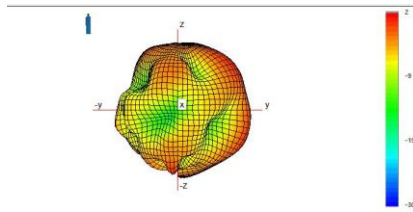


ANT2\_3750MHz

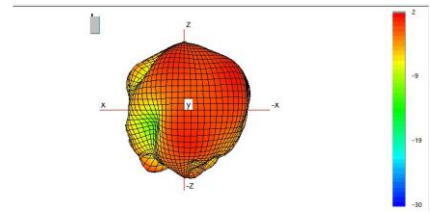
**H plane**



**E1 plane**

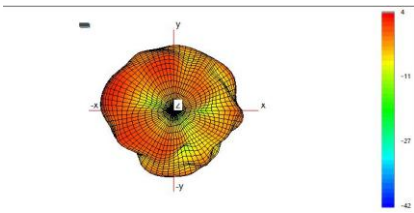


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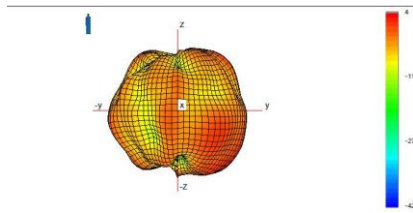


ANT2\_5500MHz

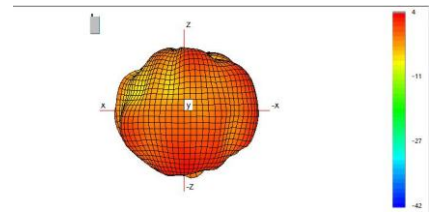
**H plane**



**E1 plane**

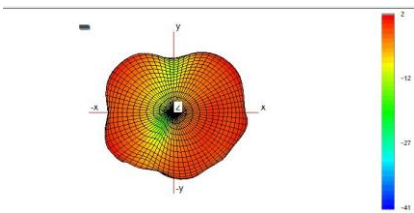


**E2 plane**

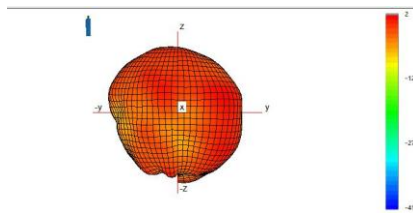


ANT3\_2200MHz

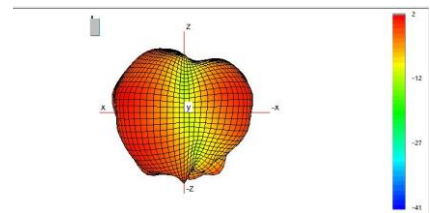
**H plane**



**E1 plane**

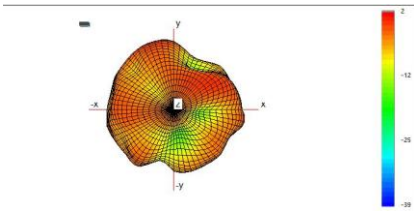


**E2 plane**

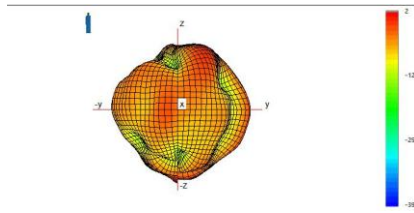


ANT3\_3750MHz

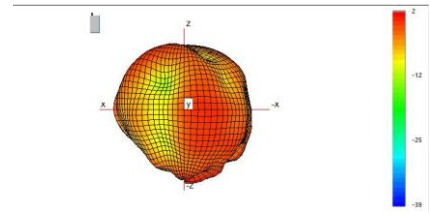
**H plane**



**E1 plane**

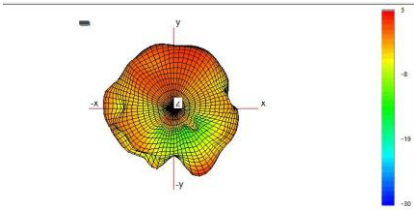


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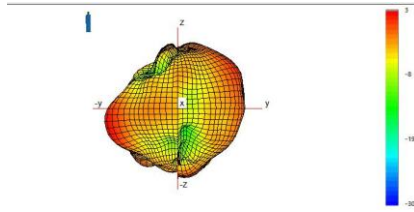


ANT3\_5500MHz

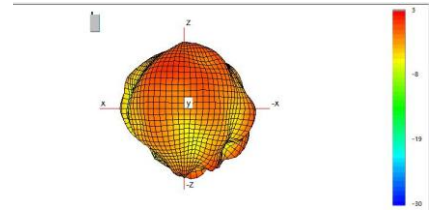
**H plane**



**E1 plane**

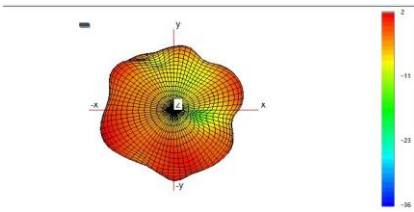


**E2 plane**

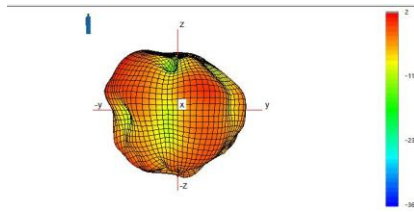


ANT4\_2500MHz

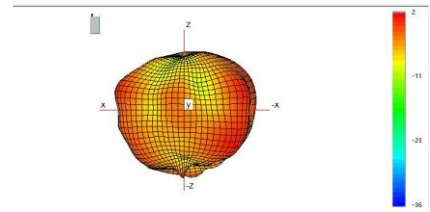
**H plane**



**E1 plane**

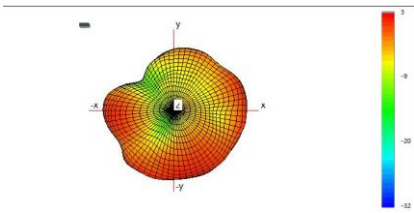


**E2 plane**

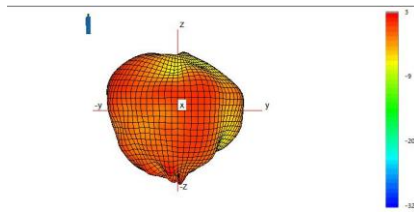


ANT5\_2500MHz

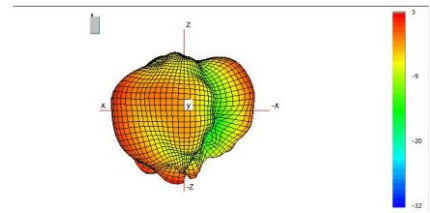
**H plane**



**E1 plane**

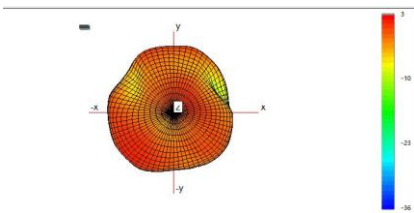


**E2 plane**

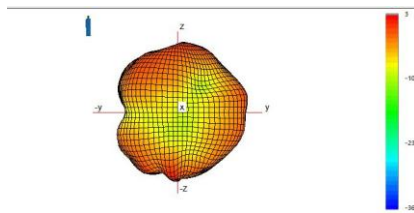


WIFI-1\_2450MHz

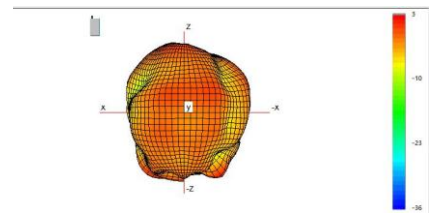
**H plane**



**E1 plane**

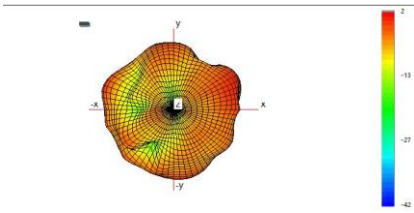


**E2 plane**

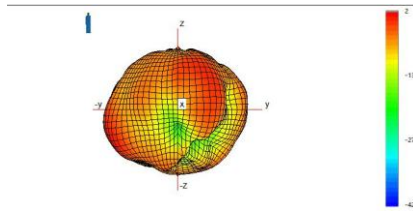


WIFI-1\_5500MHz

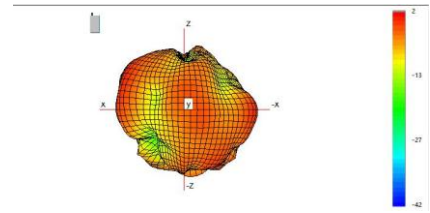
**H plane**



**E1 plane**

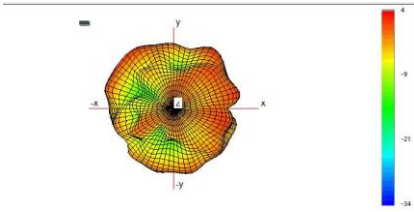


**E2 plane**

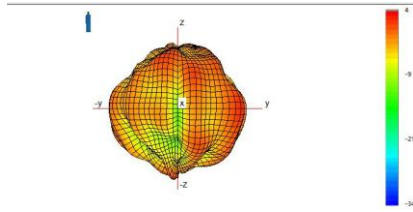


WIFI-1\_6500MHz

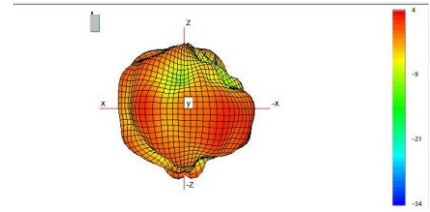
**H plane**



**E1 plane**

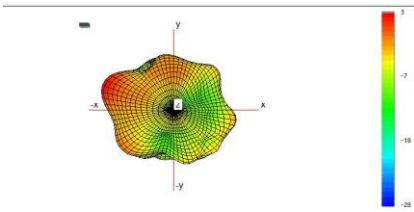


**E2 plane**

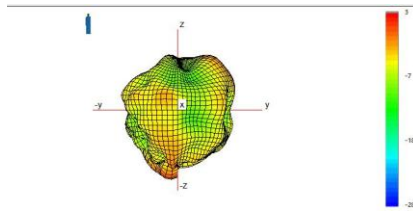


WIFI-2\_2450MHz

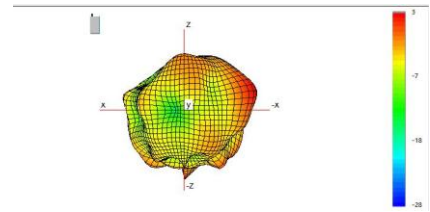
**H plane**



**E1 plane**

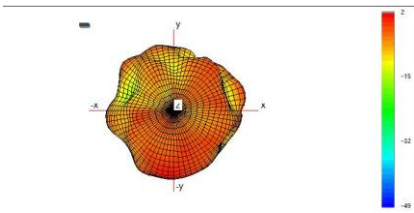


**E2 plane**

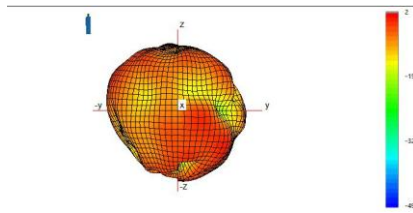


WIFI-2\_5500MHz

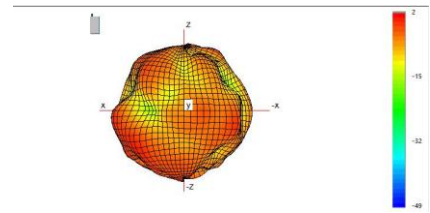
**H plane**



**E1 plane**

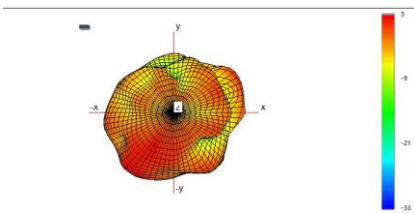


**E2 plane**

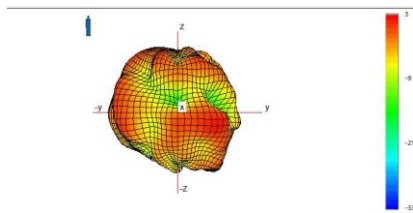


WIFI-2\_6500MHz

**H plane**



**E1 plane**



**E2 plane**

