



东莞市一佳电子通讯科技有限公司

Dongguan YiJia Electronics Communication Technology Co.,Ltd.

# 规格承认书

## SPECIFICATION FOR APPROVAL

|                |            |
|----------------|------------|
| 日期<br>Date     | 2022/12/29 |
| 编号<br>File No  | 22122902   |
| 版本<br>Revision | 1.0        |

客户  
CUSTOMER: Fanvil Technology Co., LTD.

客户料号  
CUSTOMER NO: EADA100032A0

品名  
PART NAME: WIFI双频Antenna L=90mm

供方料号  
SUPPLIER NO: YJL01.106.040.302A

送样日期Date: 送样数量Q “TY:

| 客户确认CUSTOMER APPROVED BY |       |            |
|--------------------------|-------|------------|
| APPROVAL                 | CHIEF | SUPERVISOR |
|                          |       |            |

| 供方确认 SUPPLIER SIGNATURE |       |            |
|-------------------------|-------|------------|
| APPROVAL                | CHECK | DESIGN     |
| <br>ChenGuoqiang        | XieLi | ChenXingyi |

YJ-RD-F04-A

add: 东莞市长安镇沙头社区木鱼路59号元富工业区 Tel:0769-82586086 Fax:0769-82586086



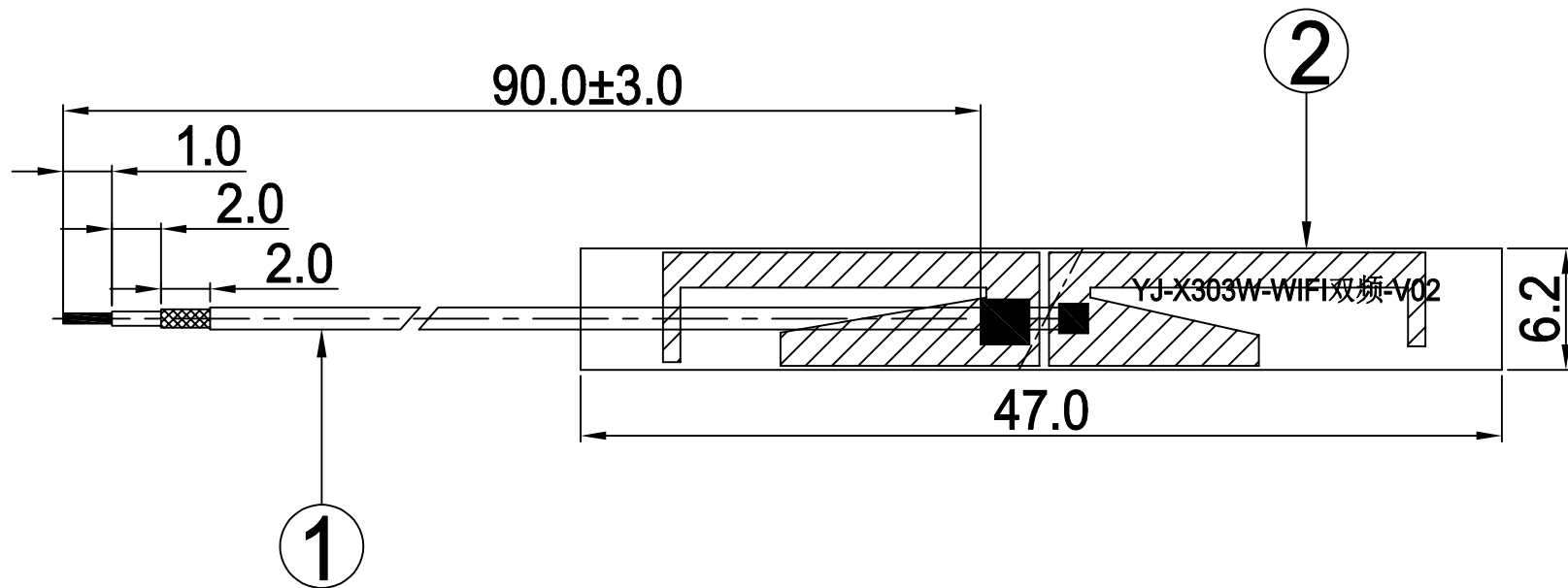
# 承认书项目表

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| 13 | -                            | -                      | -                 |

**RoHS**  
Compatible

CUSTOMER  
PART NO

| REV. | DESCRIPTION | DATE       |
|------|-------------|------------|
| △    | 首次发行        | 2022-11-21 |
| ⊕    | 修改线长        | 2023-01-03 |



东莞市一佳电子通讯科技有限公司

Tel : 0769-82586086

Dongguan YiJia Electronics Communication Technology Co.,Ltd. Fax:0769-82586086

PART NAME: WIFI双频 Antenna L=90mm

PART NO.: YJL01.106.040.302A

DATE: 2023-01-03

| APPROVED BY | CHECKED BY | DESIGNED BY | <br>UNITS: mm<br>SCALE: 1/1<br>REVISION: B | Tolerance<br>X.X ±0.50<br>X.XX±0.15<br>X° ±3° |
|-------------|------------|-------------|--|---|
| 何清军         | 周颖杰        | 廖光喜         |  |   |

| NO | PART NAME     | DESCRIPTION    | Material | Part Number   | Q.TY |
|----|---------------|----------------|----------|---------------|------|
| 2  | FPC           | 47.0*6.2mm     | FPC      | FPC11XXXA.P01 | 1    |
| 1  | Coaxial Cable | O.D.1.13 Black | O.D.1.13 | COA100XXA.P01 | 1    |

E  
D  
C  
B  
A

1 2 3 4 5 6 7 8



# 天线规格

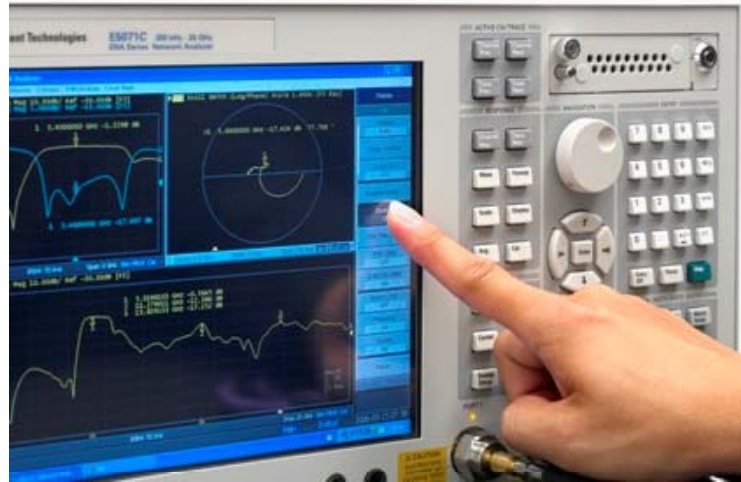
## Antenna Specification

| <b>Electrical Properties</b> |  |
|------------------------------|--|
| Frequency                    | 2.4-2.5GHz<br>5.15-5.85GHz                 |
| Impedance                    | 50 Ohm Nominal                             |
| V.S.W.R                      | 2.0 Max@2.4-2.5GHz<br>2.5 Max@5.15-5.85GHz |
| Gain                         | 3.1 dBi@2.4-2.5GHz<br>4.7 dBi@5.15-5.85GHz |
| Radiation                    | Omni-directional                           |
| Polarization                 | Linear                                     |
| <b>Physical Properties</b>   |  |
| Connector                    | None                                       |
| Cable Type                   | O.D.1.13mm                                 |
| Cable Length                 | 90mm                                       |
| Cable Color                  | Black                                      |
| Operating Temp.              | -40 ~ +85 °C                               |
| Storage Temp / Humidity      | 25 ± 5 °C / <70%                           |

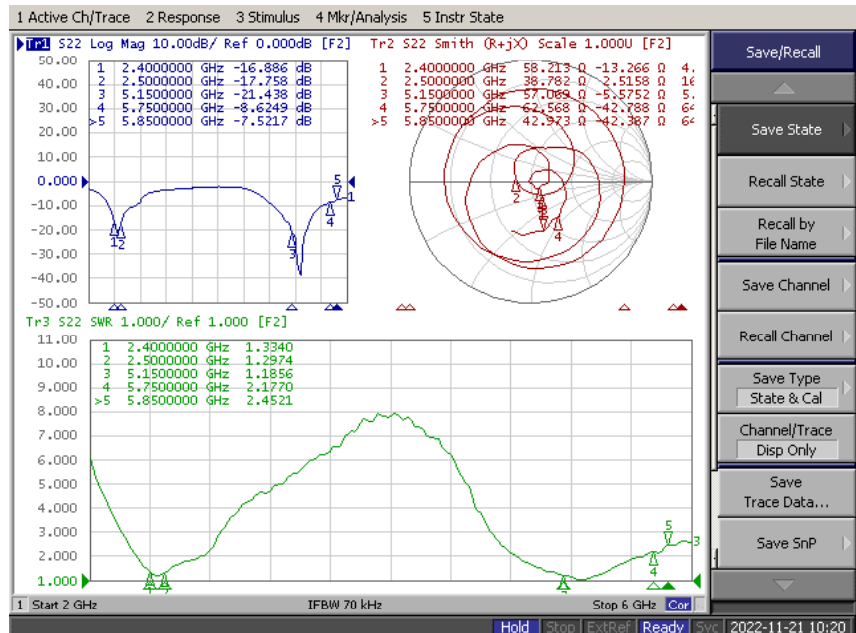


# Antenna Performance Test

**Agilent  
E5071B**

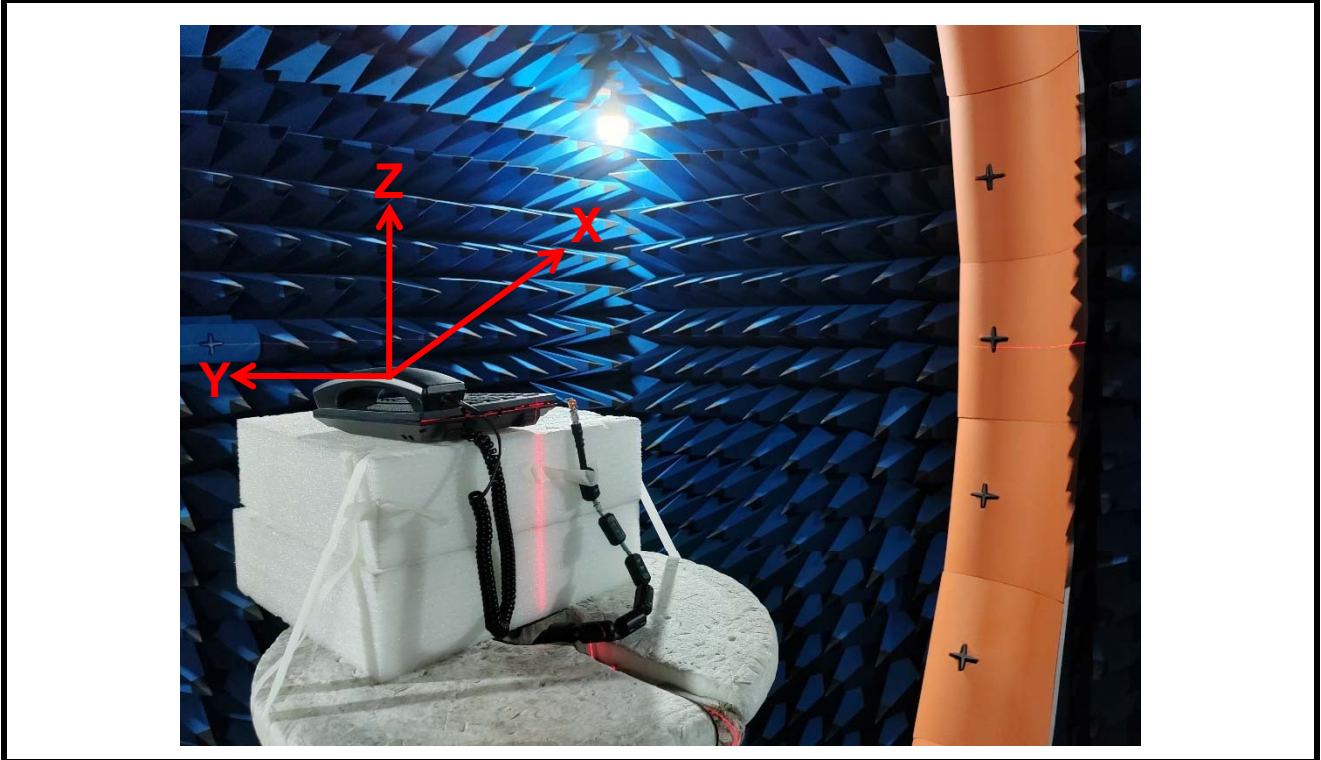
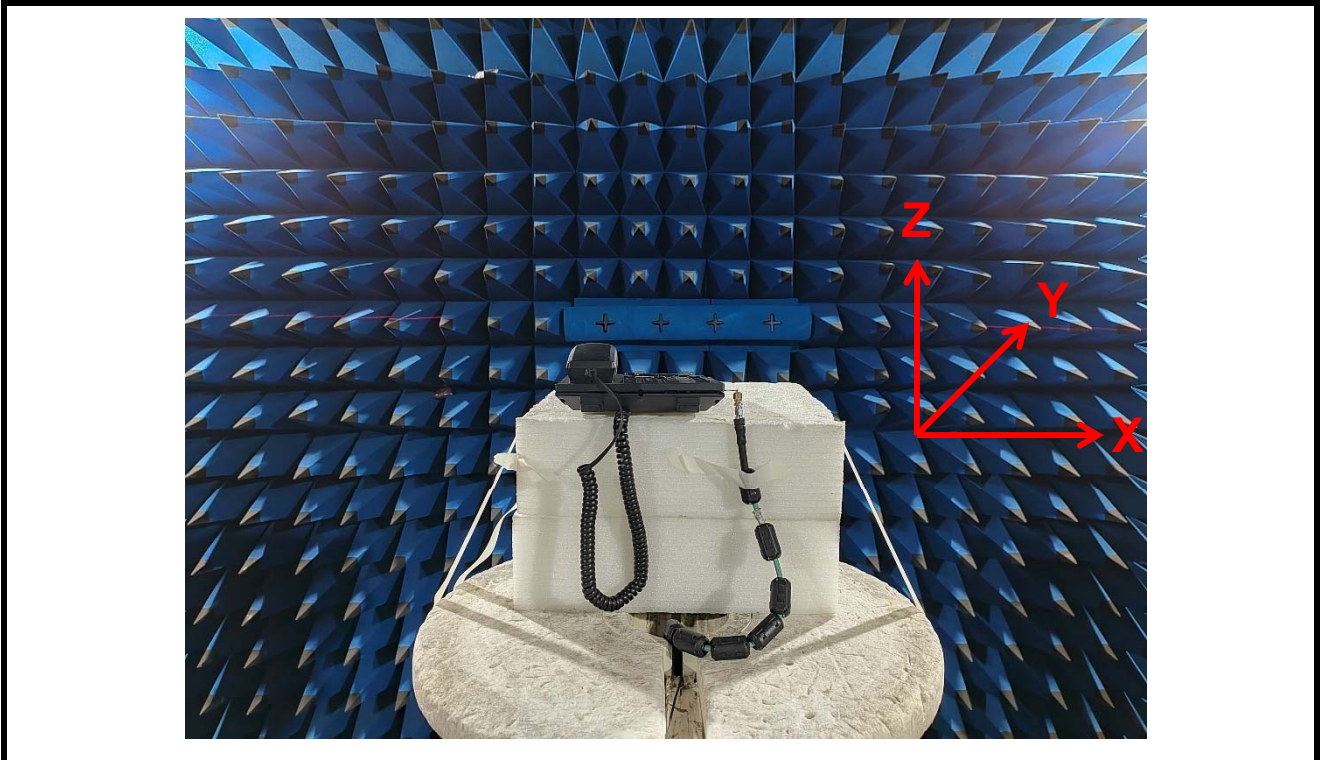


**S  
Parameter  
Test //  
WIFI  
Antenna**





## *Antenna Passive Test*





| Passive Test For WiFi Antenna(2.4G) |          |           |            |
|-------------------------------------|----------|-----------|------------|
| Freq (MHz)                          | Effi (%) | Effi (dB) | Gain (dBi) |
| 2400                                | 49.7     | -3.0      | 2.8        |
| 2410                                | 50.0     | -3.0      | 2.9        |
| 2420                                | 49.8     | -3.0      | 2.8        |
| 2430                                | 49.4     | -3.1      | 2.8        |
| 2440                                | 48.5     | -3.1      | 2.6        |
| 2450                                | 50.6     | -3.0      | 3.0        |
| 2460                                | 48.8     | -3.1      | 2.6        |
| 2470                                | 50.5     | -3.0      | 3.1        |
| 2480                                | 48.9     | -3.1      | 2.7        |
| 2490                                | 49.8     | -3.0      | 3.0        |
| 2500                                | 47.8     | -3.2      | 2.5        |



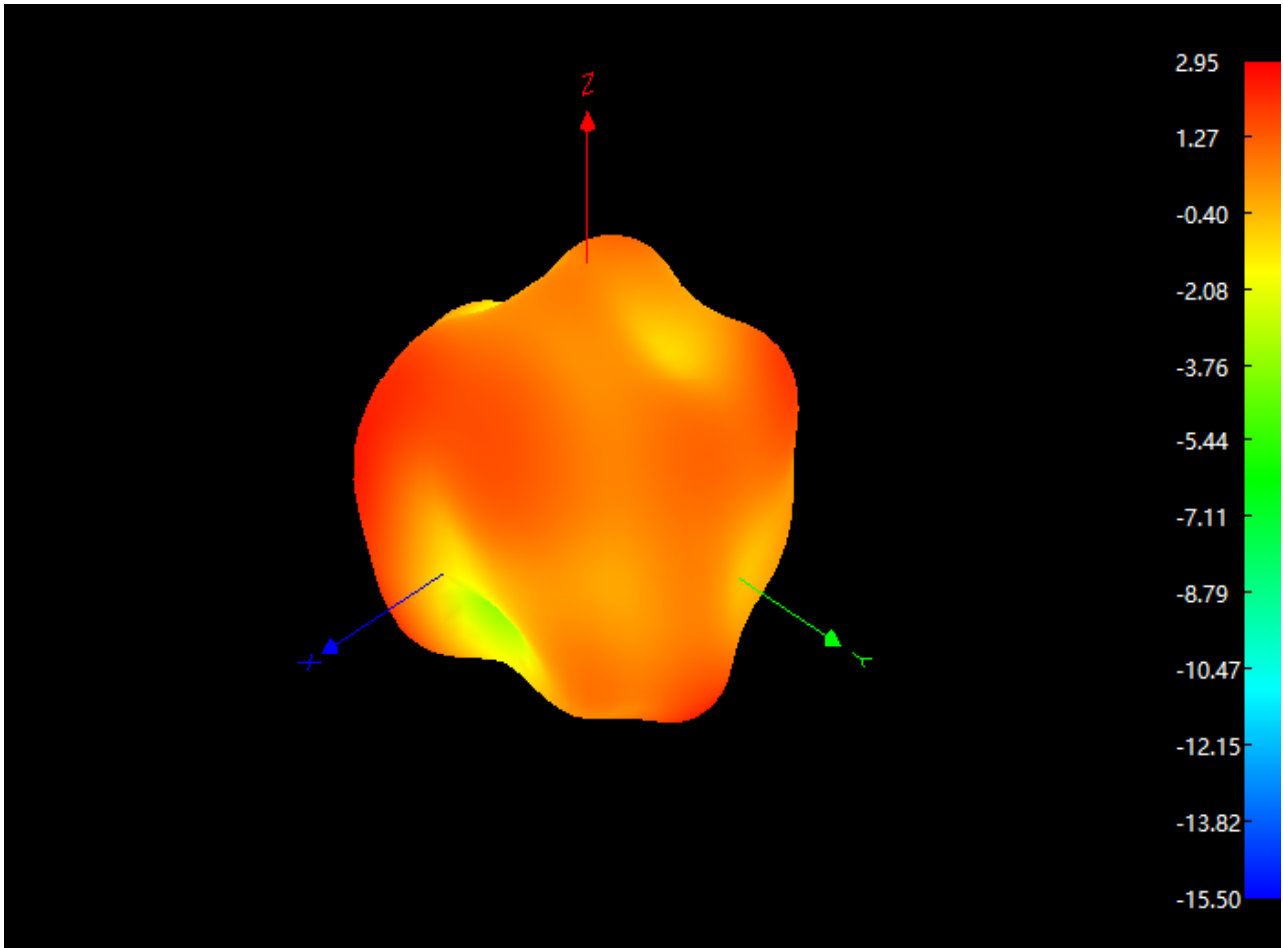
### Passive Test For WiFi Antenna(5.8G)

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 5150       | 57.9     | -2.4      | 4.2        |
| 5200       | 57.9     | -2.4      | 4.5        |
| 5250       | 56.9     | -2.5      | 4.7        |
| 5300       | 54.3     | -2.7      | 4.4        |
| 5350       | 50.5     | -3.0      | 4.1        |
| 5400       | 53.2     | -2.7      | 4.2        |
| 5450       | 50.4     | -3.0      | 3.8        |
| 5500       | 44.5     | -3.5      | 3.3        |
| 5550       | 49.1     | -3.1      | 3.8        |
| 5600       | 50.9     | -2.9      | 3.9        |
| 5650       | 42.5     | -3.7      | 3.2        |
| 5700       | 44.9     | -3.5      | 3.4        |
| 5750       | 55.7     | -2.5      | 4.2        |
| 5800       | 50.5     | -3.0      | 4.0        |
| 5850       | 42.3     | -3.7      | 3.3        |



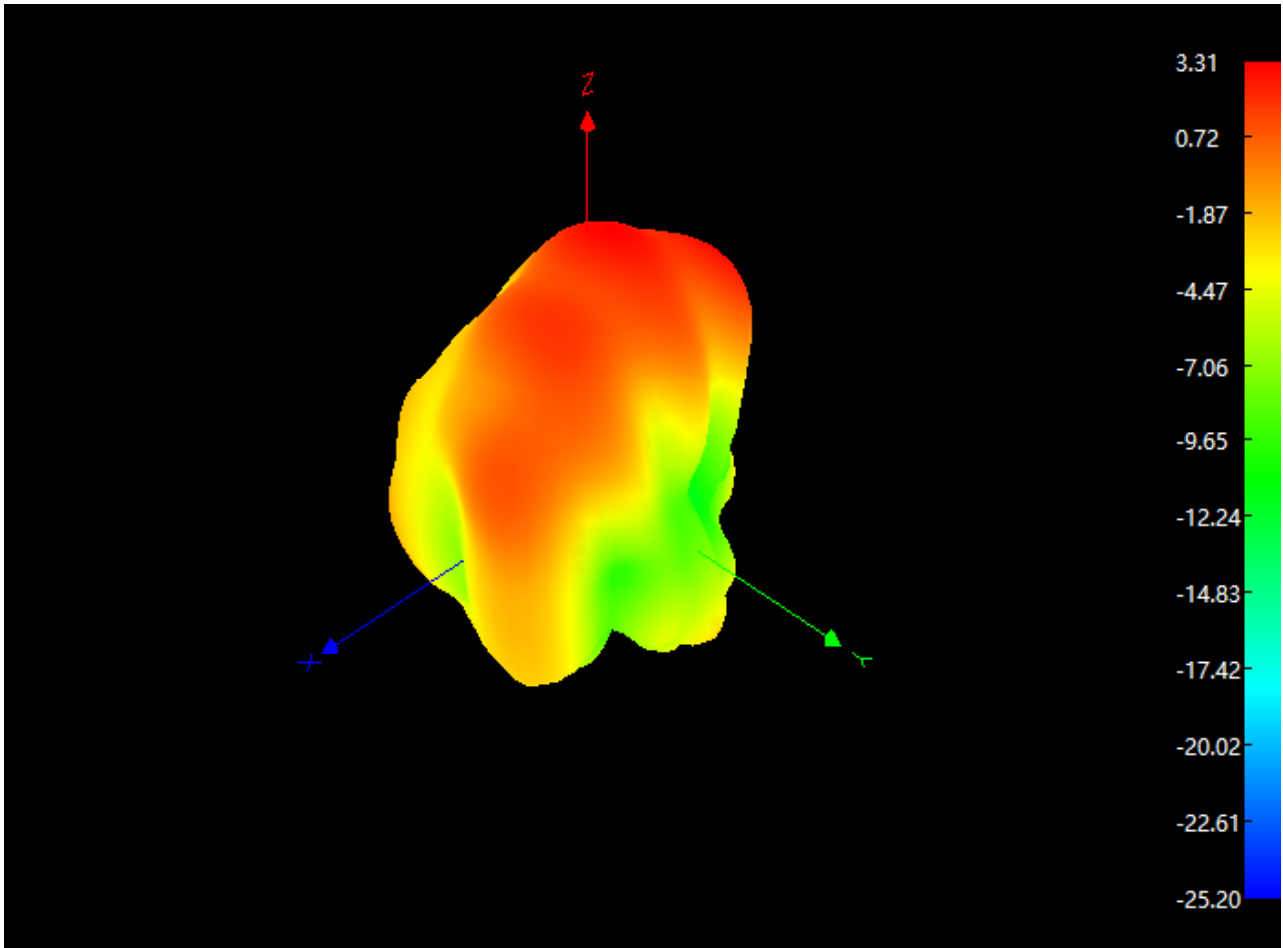


## Radiation Pattern For WIFI Antenna(2450MHz)





## Radiation Pattern For WIFI Antenna(5500MHz)





## Antenna Active Test

| Active Test For WIFI Antenna |         |           |      |           |       |
|------------------------------|---------|-----------|------|-----------|-------|
| Band                         | Channel | Data Rate | TRP  | Data Rate | TIS   |
| WIFI 2.4G<br>802.11b         | 1       | 11Mbps    | 13.8 | 11Mbps    | -82.3 |
|                              | 6       |           | 14.5 |           | -82.5 |
|                              | 11      |           | 14.7 |           | -82.9 |
| WIFI 2.4G<br>802.11g         | 1       | 54Mbps    | 13.0 | 54Mbps    | -69.9 |
|                              | 6       |           | 13.9 |           | -70.1 |
|                              | 11      |           | 14.2 |           | -70.7 |
| WIFI 2.4G<br>802.11n         | 1       | MCS7      | 12.0 | MCS7      | -65.5 |
|                              | 6       |           | 12.7 |           | -65.8 |
|                              | 11      |           | 13.2 |           | -66.6 |
| WIFI 5G<br>802.11a           | 149     | 54Mbps    | 17.0 | 54Mbps    | -70.1 |
|                              | 157     |           | 16.9 |           | -70.3 |
|                              | 165     |           | 16.7 |           | -70.0 |