

# Antenna

# Specifications

At Wavelink, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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## Catalogue

|   |                              |   |
|---|------------------------------|---|
| 1 | Product Description .....    | 3 |
| 2 | Product Features .....       | 3 |
| 3 | Product Specifications ..... | 3 |
| 4 | Overall Performance .....    | 4 |
| 5 | Product Size .....           | 7 |
| 6 | Others .....                 | 8 |

## 1 Product Description

This wavelink antenna covers WiFi 2.4.

## 2 Product Features

Easy to install  
High efficiency  
Removable



## 3 Product Specifications

### Passive Electrical Specifications

|                 |               |
|-----------------|---------------|
| Frequency Range | 2400-2500 MHz |
| Input Impedance | 50 $\Omega$   |
| VSWR            | $\leq 2.5$    |

|      |              |
|------|--------------|
| Gain | $\leq 3$ dBi |
|------|--------------|

|                   |        |
|-------------------|--------|
| Polarization Type | Linear |
|-------------------|--------|

### Mechanical Specifications

|              |                      |
|--------------|----------------------|
| Antenna Size | 108 mm $\times$ 10mm |
|--------------|----------------------|

|        |             |
|--------|-------------|
| Casing | Copper tube |
|--------|-------------|

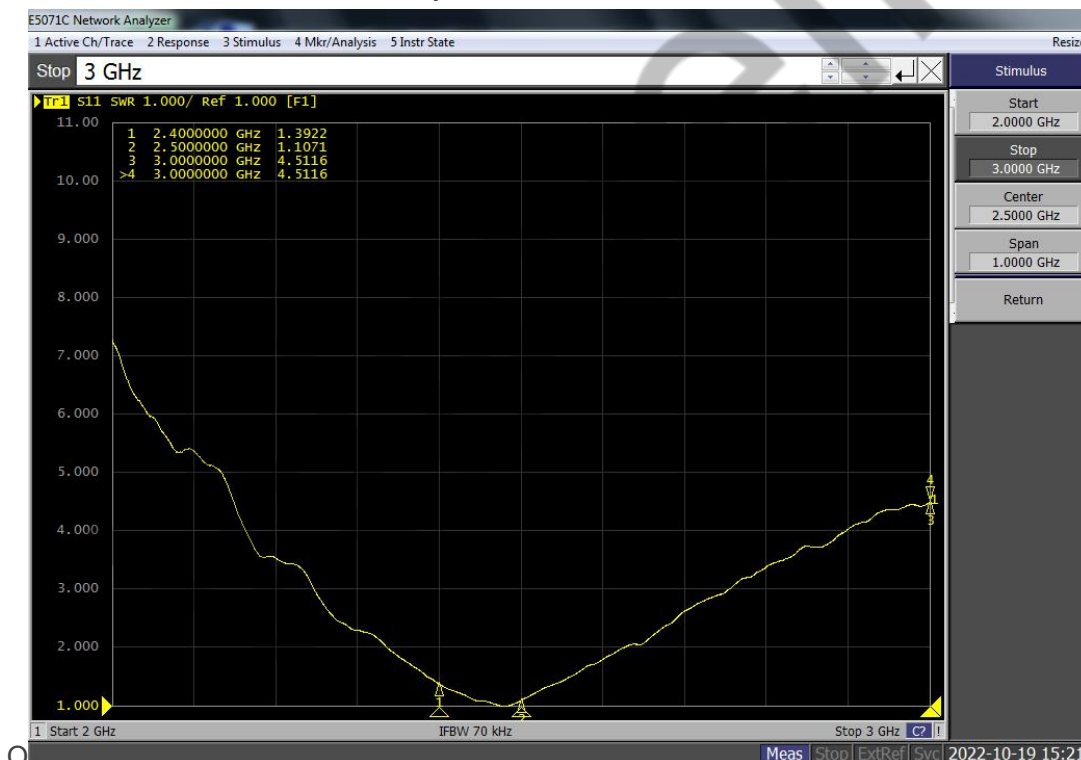
|                |     |
|----------------|-----|
| Connector Type | SMA |
|----------------|-----|

|                     |                                      |
|---------------------|--------------------------------------|
| Working Temperature | -40 $^{\circ}$ C to +85 $^{\circ}$ C |
|---------------------|--------------------------------------|

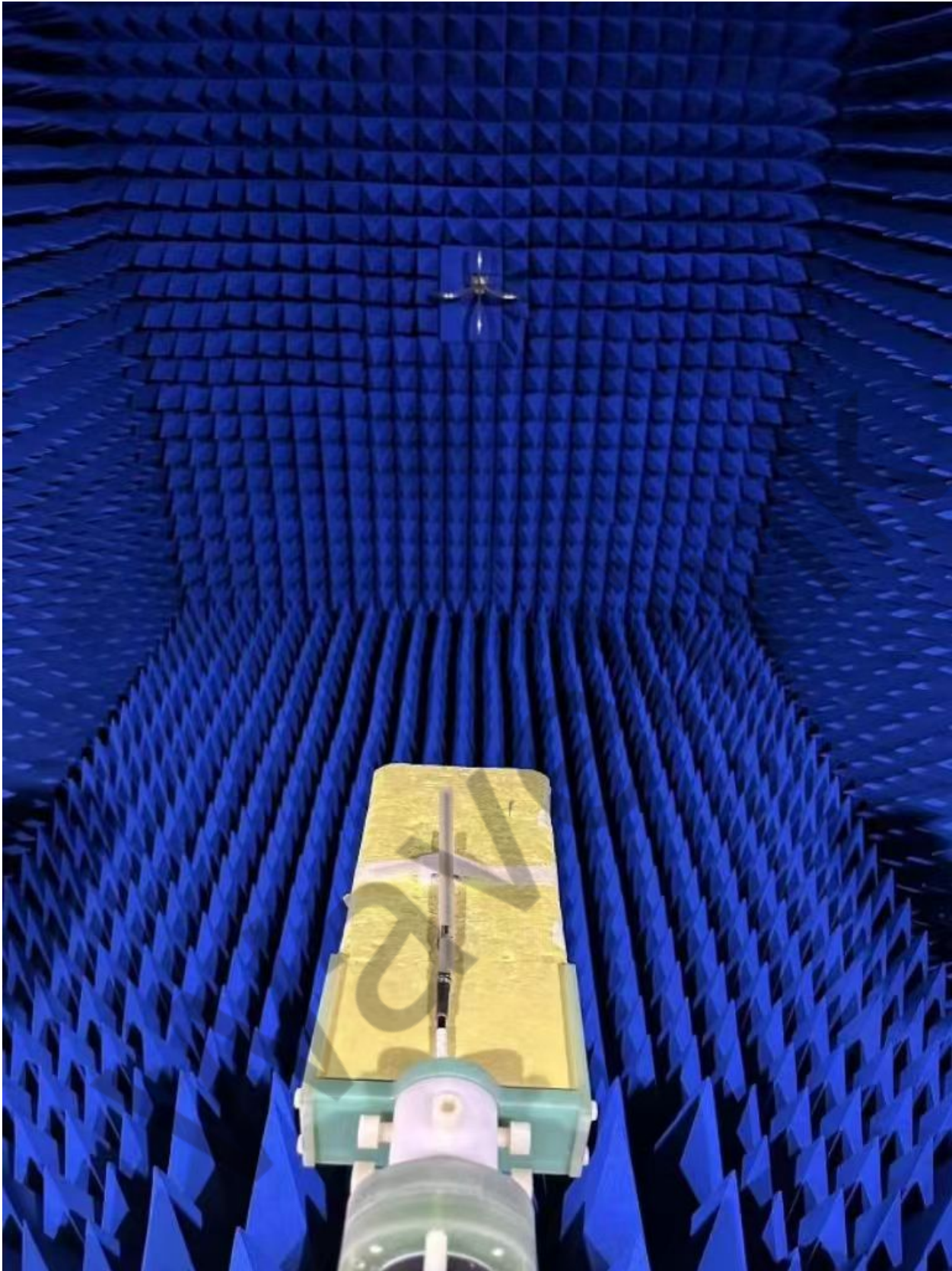
|              |       |
|--------------|-------|
| Radome Color | White |
|--------------|-------|

## 4 Overall Performance

KEYSIGHT VNA Network Analyzer E5071C 100 kHz – 8.5 GHz

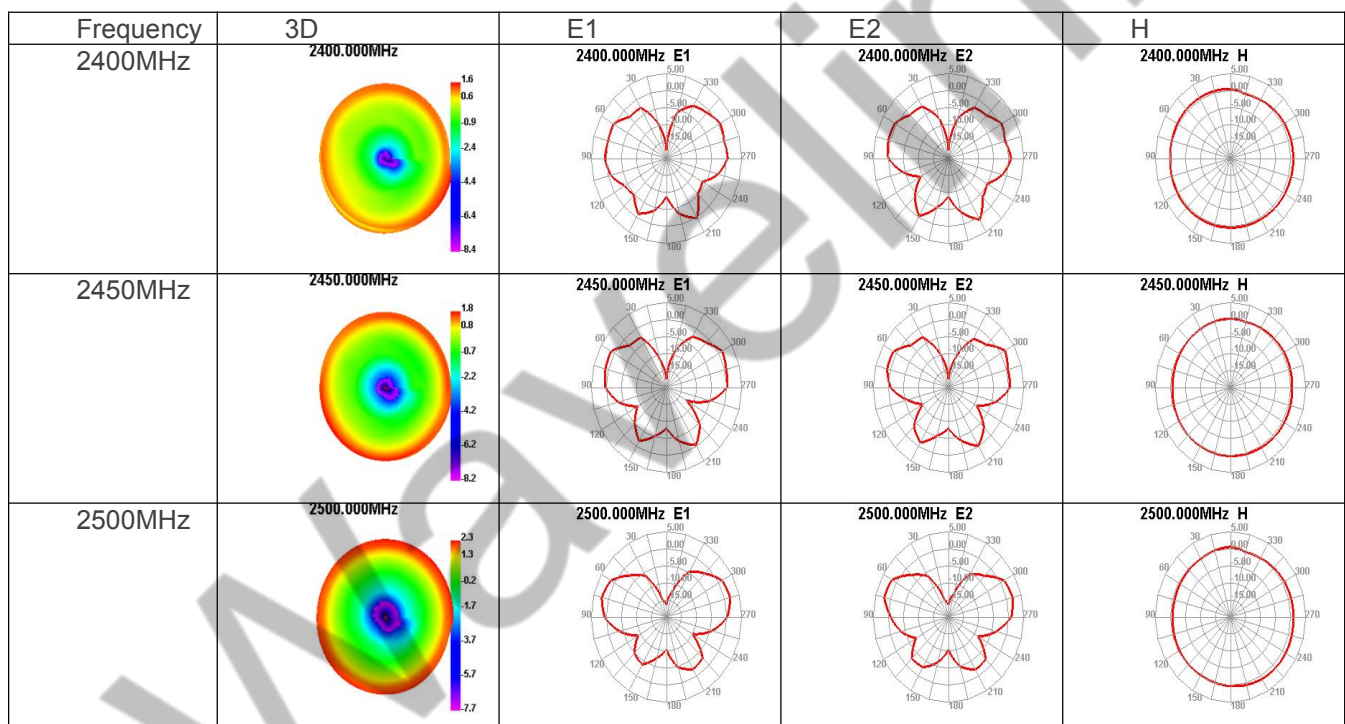


OTA Test Report



| Freq | Effi | Effi | Gain | Gain | Max | Min | Directivity | Beamwidth | AttH | AttV |
|------|------|------|------|------|-----|-----|-------------|-----------|------|------|
|------|------|------|------|------|-----|-----|-------------|-----------|------|------|

| (MHz) | (%)   | (dB)  | (dBi) | (dBd) | (dB) | (dB)   | (dBi) | (3dB) | (dB)  | (dB)  |
|-------|-------|-------|-------|-------|------|--------|-------|-------|-------|-------|
| 2400  | 71.17 | -1.48 | 1.57  | -0.58 | 1.57 | -22.03 | 1.48  | 75    | 46.78 | 46.66 |
| 2410  | 69.97 | -1.55 | 1.52  | -0.63 | 1.52 | -22.46 | 1.55  | 45    | 46.54 | 46.47 |
| 2420  | 65.72 | -1.82 | 1.18  | -0.97 | 1.18 | -22.24 | 1.82  | 45    | 46.78 | 46.77 |
| 2430  | 67.2  | -1.73 | 1.54  | -0.61 | 1.54 | -21.35 | 1.73  | 45    | 46.65 | 46.52 |
| 2440  | 68.54 | -1.64 | 1.76  | -0.39 | 1.76 | -20.08 | 1.64  | 45    | 46.79 | 46.73 |
| 2450  | 68.48 | -1.64 | 1.77  | -0.38 | 1.77 | -19.32 | 1.64  | 45    | 46.92 | 46.83 |
| 2460  | 68.83 | -1.62 | 1.68  | -0.47 | 1.68 | -18.33 | 1.62  | 45    | 47.02 | 46.93 |
| 2470  | 68.65 | -1.63 | 1.72  | -0.43 | 1.72 | -17.91 | 1.63  | 30    | 46.82 | 46.7  |
| 2480  | 70.08 | -1.54 | 2.02  | -0.13 | 2.02 | -18.27 | 1.54  | 30    | 47.15 | 47.03 |
| 2490  | 73.22 | -1.35 | 2.29  | 0.14  | 2.29 | -18.51 | 1.35  | 30    | 47.25 | 47.04 |
| 2500  | 73.1  | -1.36 | 2.25  | 0.1   | 2.25 | -18.39 | 1.36  | 30    | 47.08 | 46.9  |



## 5 Product Size

| A |  | B |  | C |  | D |  | E |  | F   |           | G           |  |
|---|--|---|--|---|--|---|--|---|--|-----|-----------|-------------|--|
|   |  |   |  |   |  |   |  |   |  | REV | DATE      | DESCRIPTION |  |
|   |  |   |  |   |  |   |  |   |  |     | 2022.5.27 |             |  |

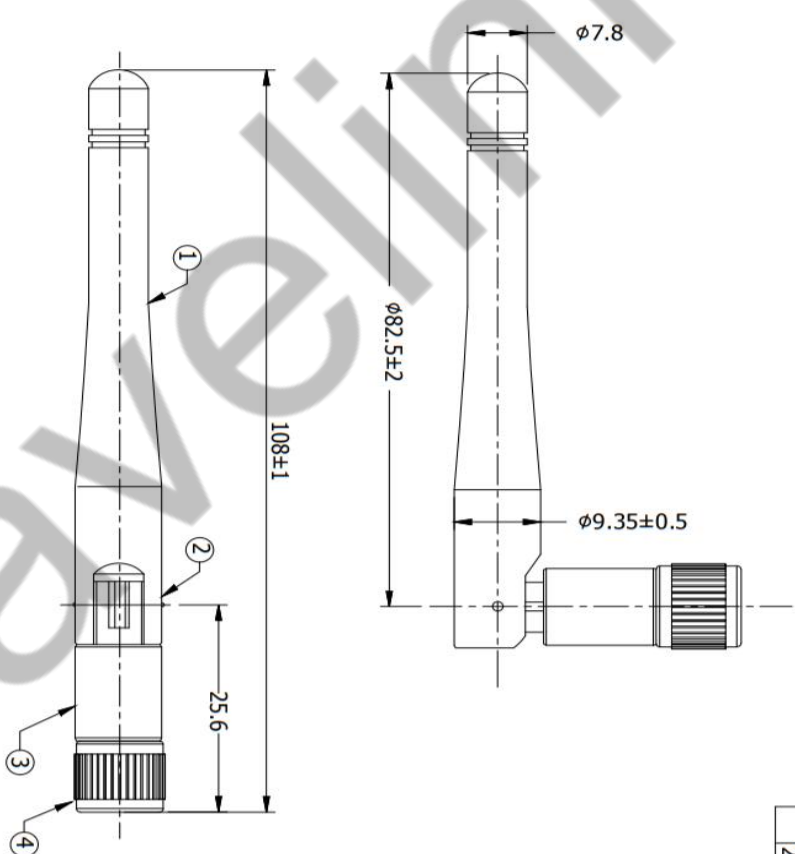
Specification:

Frequency Range: 2400-2500MHz

Impedance: 50Ω

VSWR: 2.0 max

Gain: 3 dbi



| CUSTOMER: |      | PART NO. : |         |
|-----------|------|------------|---------|
| XX.       | ±5.0 | APPROVED   | CHECKED |
| X.        | ±3.0 |            |         |
| XX        | ±1.0 |            |         |
| XXX       | ±0.5 |            |         |
| ±0.1      |      |            |         |

| DRAWING |      | REV |      | UNIT |    | FILE |    |
|---------|------|-----|------|------|----|------|----|
| XX      | ±0.1 | XX  | ±0.1 | mm   | mm | mm   | mm |
| XX      | ±0.1 | XX  | ±0.1 | mm   | mm | mm   | mm |

| CUSTOMER'S SIGNATURE |  | XU Xiaoxiao |  | XU |  | SHEET : 1/1 |  |
|----------------------|--|-------------|--|----|--|-------------|--|
|                      |  |             |  |    |  |             |  |

| Kunshan Wavelink Electronics Co., Ltd. |  | 昆山市海宣电子有限公司 |  |
|----------------------------------------|--|-------------|--|
|                                        |  |             |  |

| NO |              | Material code |                 | DESCRIPTION |  | QTY |  |
|----|--------------|---------------|-----------------|-------------|--|-----|--|
| 4  | Connector    | C0302009      | RP-SMA Male     |             |  |     |  |
| 3  | Antenna Base | C0400019      | PBT;Color:Black |             |  |     |  |
| 2  | Antenna Base | C0400018      | PC;Color:Black  |             |  |     |  |
| 1  | Antenna Body | C0400003      | TPE;Color:Black |             |  |     |  |

## 6 Others

| DESCRIPTION                   | SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature /Humidity cycling | <ol style="list-style-type: none"> <li>1, The device under test is kept for 30 mins in an environment with a temperature of -40 °C.</li> <li>2, Kept for 4 Hours in an environment with a temperature of 8cthe conditions are stabilized at room temperature.</li> <li>3, Parts should meet RF spec before and after test.</li> <li>4, No cosmetic problem(No soldering problem;No adhesion problem of glue).</li> </ol>                                                                                                     |
| Temperature Shock             | <ol style="list-style-type: none"> <li>1, The device under test at -40 °C ⇄ 125 °C by 100 cycles, Dwell of 30 mins, transition time between Dwell 30 secs (~ 61 mins / cycle) and each item should be measured after exposing them in normal temperature and humidity for 24 h.</li> <li>2, Parts should meet RF spec before and after test.</li> <li>3, No cosmetic problem(No soldering problem; No adhesion problem of glue).</li> </ol>                                                                                  |
| High Temperature              | <ol style="list-style-type: none"> <li>1, Temperature:125°C, time:1008 hours</li> <li>2, There is no substantial obstruction to air flow across and around the samples, and the samples are not touching each other</li> <li>3, Parts should meet RF spec before and after test.</li> <li>4, No cosmetic problem(No soldering problem; No adhesion problem of glue).</li> </ol>                                                                                                                                              |
| Salt mist test                | <ol style="list-style-type: none"> <li>1, The device under test is exposed to a spray of a 5% (by volume) resolution of NACL in water for 2 hours. Thereafter the device under test is left for 1 week in room temperature at a relative humidity of 95%. The cycle is repeated until a total of 2 cycles have been completed. Here after the conditions are stabilized at room temperature.</li> <li>2, Parts should meet RF spec before and after test.</li> <li>3, No visible corrosion. Discoloration accept.</li> </ol> |