

# 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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Wavelink Partners:

**Skyworth NARI**

**flex**

 **HUAWEI**

 **VVDN**  
TECHNOLOGIES

**Tenda Infinova**

**dji**

**Hikvision**

**JABIL**

## Catalogue

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## 1 Product Description

This wavelink antenna covers 433MHz.

## 2 Product Features

Easy to install  
High efficiency  
Removable



## 3 Product Specifications

### Passive Electrical Specifications

|                 |             |
|-----------------|-------------|
| Frequency Range | 433MHz      |
| Input Impedance | 50 $\Omega$ |
| VSWR            | $\leq 5$    |

|      |              |
|------|--------------|
| Gain | $\leq 1$ dBi |
|------|--------------|

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

### Mechanical Specifications

|              |              |
|--------------|--------------|
| Antenna Size | 40 mm × 7 mm |
|--------------|--------------|

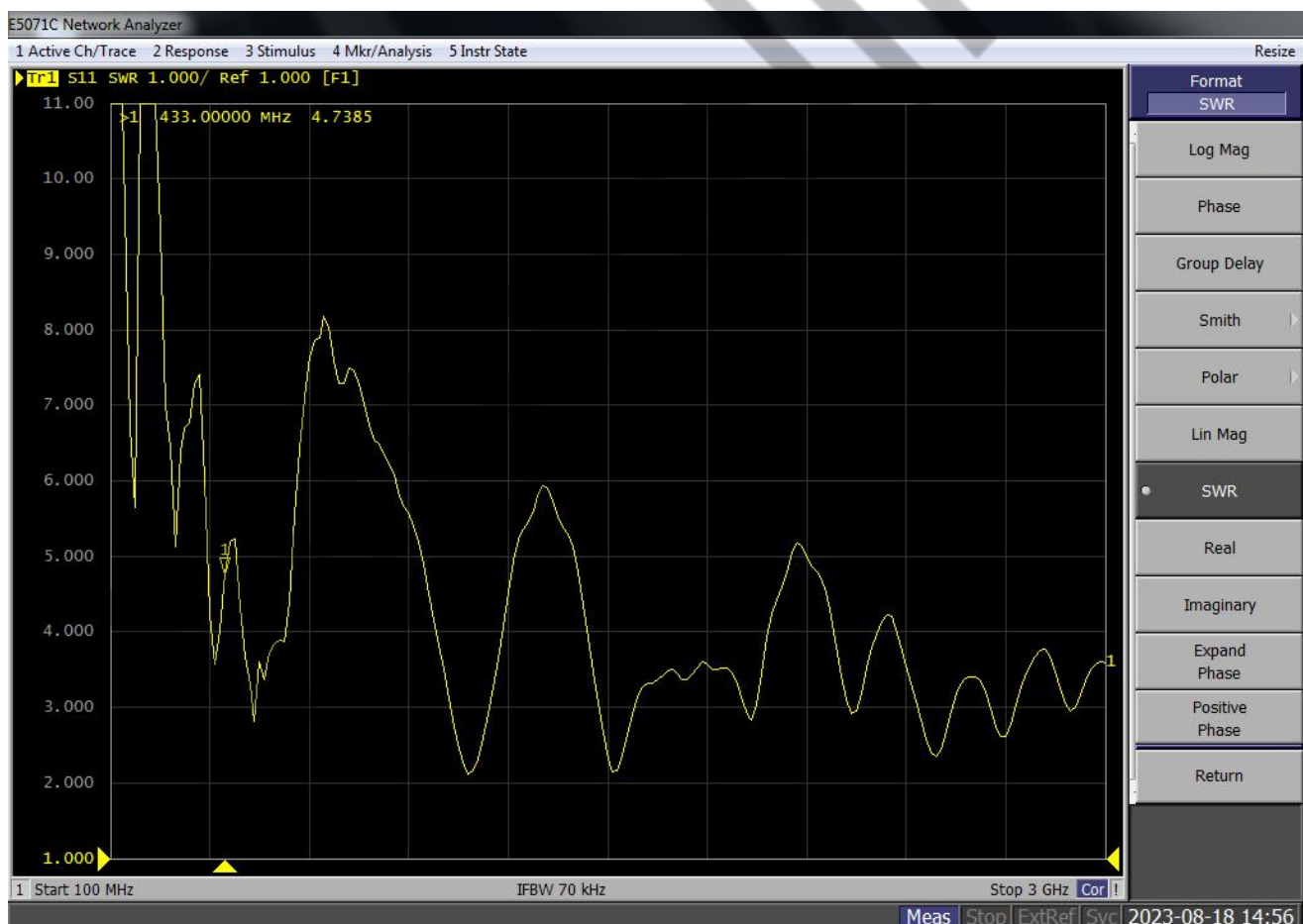
|                |       |
|----------------|-------|
| Connector Type | I-PEX |
|----------------|-------|

|                     |                  |
|---------------------|------------------|
| Working Temperature | -40 °C to +85 °C |
|---------------------|------------------|

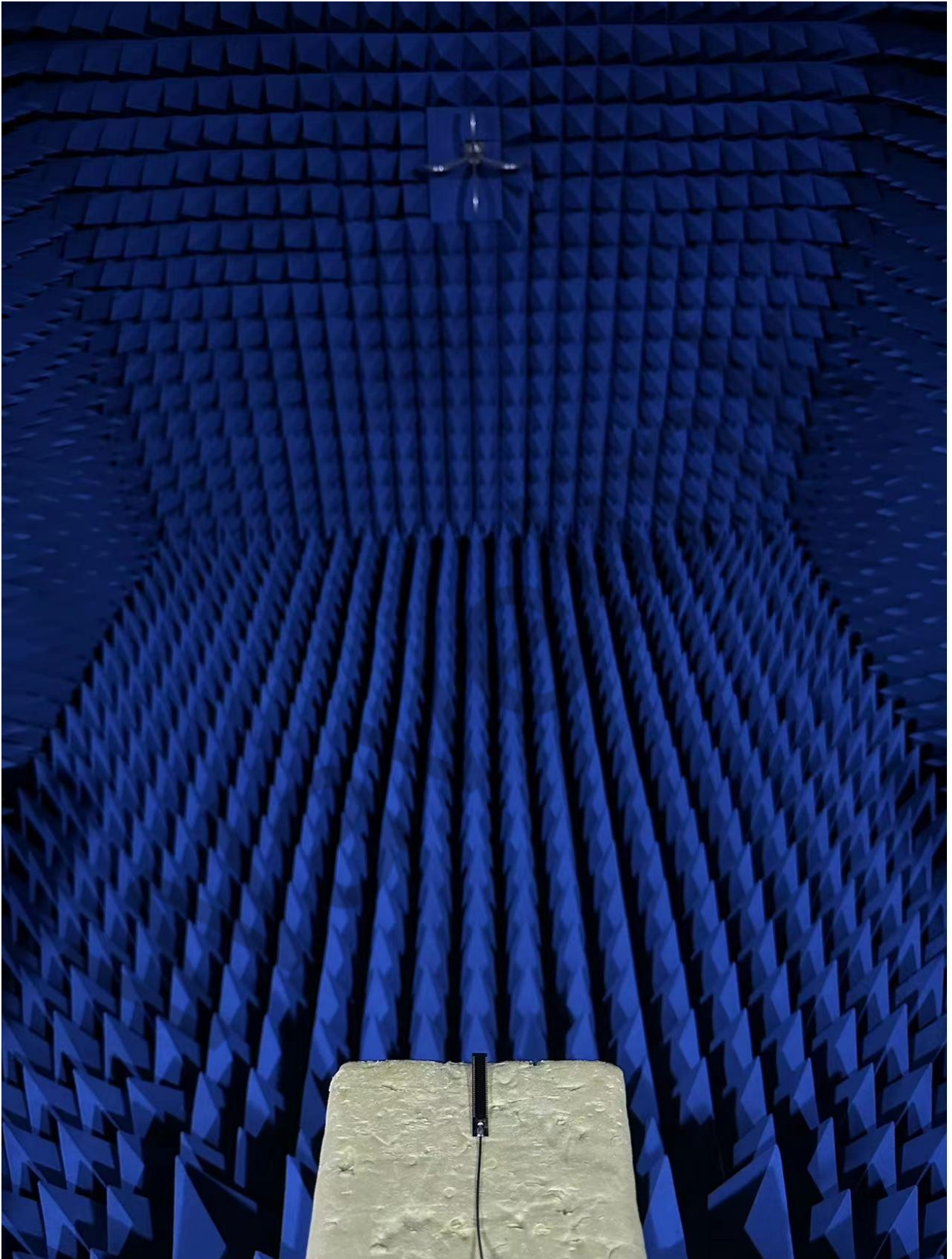
|              |       |
|--------------|-------|
| Radome Color | Black |
|--------------|-------|

## 4 Overall Performance

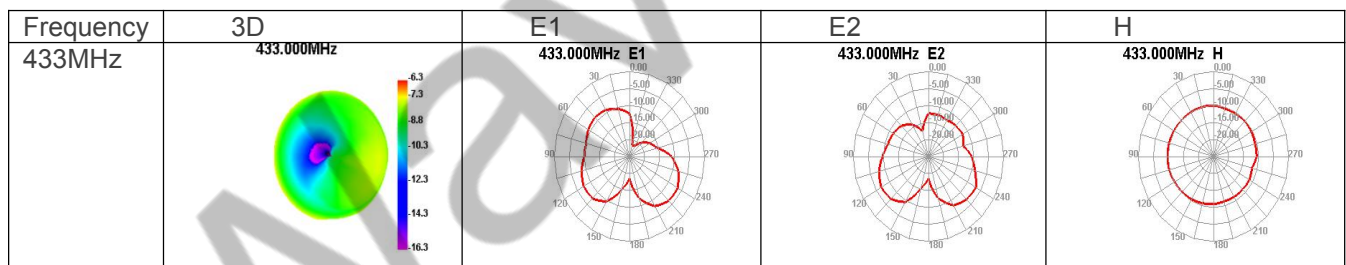
KEYSIGHT VNA Network Analyzer E5071C 100 kHz – 8.5 GHz







| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) | Max<br>(dB) | Min<br>(dB) | Directivity<br>(dBi) | AttH<br>(dB) | AttV<br>(dB) |
|---------------|-------------|--------------|---------------|---------------|-------------|-------------|----------------------|--------------|--------------|
| 420           | 10.16       | -9.93        | -6.64         | -8.79         | -6.64       | -22.41      | 3.3                  | 36.8         | 38.65        |
| 421           | 10.34       | -9.85        | -6.61         | -8.76         | -6.61       | -22.25      | 3.25                 | 36.73        | 38.55        |
| 422           | 10.45       | -9.81        | -6.63         | -8.78         | -6.63       | -22.41      | 3.18                 | 36.65        | 38.44        |
| 423           | 10.5        | -9.79        | -6.63         | -8.78         | -6.63       | -22.83      | 3.16                 | 36.57        | 38.34        |
| 424           | 10.52       | -9.78        | -6.63         | -8.78         | -6.63       | -23.43      | 3.15                 | 36.49        | 38.23        |
| 425           | 10.5        | -9.79        | -6.63         | -8.78         | -6.63       | -23.9       | 3.16                 | 36.41        | 38.12        |
| 426           | 10.61       | -9.74        | -6.56         | -8.71         | -6.56       | -24.26      | 3.18                 | 36.4         | 38.12        |
| 427           | 10.68       | -9.72        | -6.52         | -8.67         | -6.52       | -24.65      | 3.2                  | 36.39        | 38.12        |
| 428           | 10.71       | -9.7         | -6.49         | -8.64         | -6.49       | -25.06      | 3.21                 | 36.38        | 38.12        |
| 429           | 10.74       | -9.69        | -6.46         | -8.61         | -6.46       | -25.34      | 3.22                 | 36.37        | 38.12        |
| 430           | 10.79       | -9.67        | -6.43         | -8.58         | -6.43       | -25.73      | 3.24                 | 36.35        | 38.11        |
| 431           | 10.77       | -9.68        | -6.43         | -8.58         | -6.43       | -26.09      | 3.25                 | 36.3         | 38.03        |
| 432           | 10.81       | -9.66        | -6.39         | -8.54         | -6.39       | -26.31      | 3.27                 | 36.25        | 37.95        |
| 433           | 10.91       | -9.62        | -6.34         | -8.49         | -6.34       | -26.64      | 3.28                 | 36.2         | 37.87        |
| 434           | 11.08       | -9.55        | -6.25         | -8.4          | -6.25       | -26.78      | 3.31                 | 36.14        | 37.78        |
| 435           | 11.32       | -9.46        | -6.16         | -8.31         | -6.16       | -26.9       | 3.3                  | 36.09        | 37.7         |
| 436           | 11.38       | -9.44        | -6.12         | -8.27         | -6.12       | -26.99      | 3.32                 | 35.96        | 37.54        |
| 437           | 11.46       | -9.41        | -6.08         | -8.23         | -6.08       | -26.88      | 3.33                 | 35.82        | 37.38        |
| 438           | 11.51       | -9.39        | -6.07         | -8.22         | -6.07       | -26.65      | 3.32                 | 35.69        | 37.22        |
| 439           | 11.45       | -9.41        | -6.11         | -8.26         | -6.11       | -26.77      | 3.3                  | 35.55        | 37.06        |
| 440           | 11.28       | -9.48        | -6.18         | -8.33         | -6.18       | -27.04      | 3.3                  | 35.42        | 36.9         |





## 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 8the 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> |