



# 规格承认书

## SPECIFICATION FOR APPROVAL

|                |            |
|----------------|------------|
| 日期<br>Date     | 2025/09/25 |
| 编号<br>File No  | 25092504   |
| 版本<br>Revision | 1.0        |

客户  
CUSTOMER:

道通 Autel Robotics Co., Ltd.

客户料号  
CUSTOMER NO:

501009164

品名  
PART NAME:

RF Antenna

供方料号  
SUPPLIER NO:

YJI01.005.116.304A

送样日期Date:

送样数量Q'TY:

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

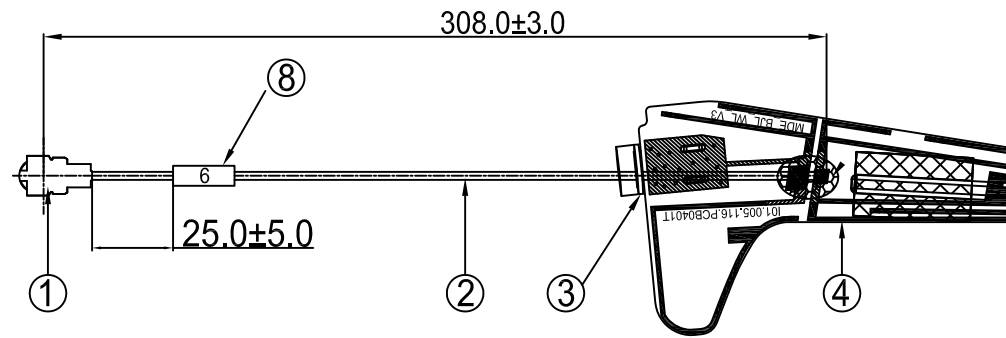
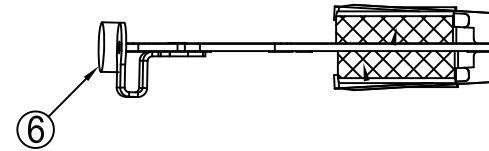
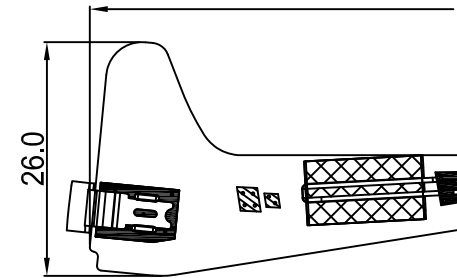
| 供方确认 SUPPLIER SIGNATURE                                                                             |       |            |
|-----------------------------------------------------------------------------------------------------|-------|------------|
| APPROVAL                                        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

YJ-RD-F04-A



RoHS  
Compatible

CUSTOMER  
PART NO



Unit: mm

|    |                |                       |          |                      |      |
|----|----------------|-----------------------|----------|----------------------|------|
| 8  | Shrink Tube    | L10.0*Ø2.0MM Black    | EVA      | I01.005.116.TUB0401T | 1    |
| 7  | Paste+EVA      | 13.0*7.1*4.0MM        | EVA      | I01.005.116.EVA0301T | 1    |
| 6  | EMI Gasket     | Ø5.5*2.0MM            | EVA      | EVA10528A.P01        | 1    |
| 5  | Metal          | 32.0*10.9*0.5MM       | SUS304   | I01.005.116.MET0302T | 1    |
| 4  | PCB            | 42.4*26.0*0.8MM       | PCB      | I01.005.116.PCB0401T | 1    |
| 3  | Metal          | 9.5*5.5*0.5MM         | SUS304   | I01.005.116.MET0301T | 1    |
| 2  | Coaxial Cable  | O.D 1.37 Red low loss | O.D 1.37 | COA10015A.R01        | 1    |
| 1  | Mini Connector | Au Plated 1代          | Cu       | TER10008A.P01        | 1    |
| NO | PART NAME      | DESCRIPTION           | Material | Part Number          | Q.TY |



## 天线规格 Antenna Specification

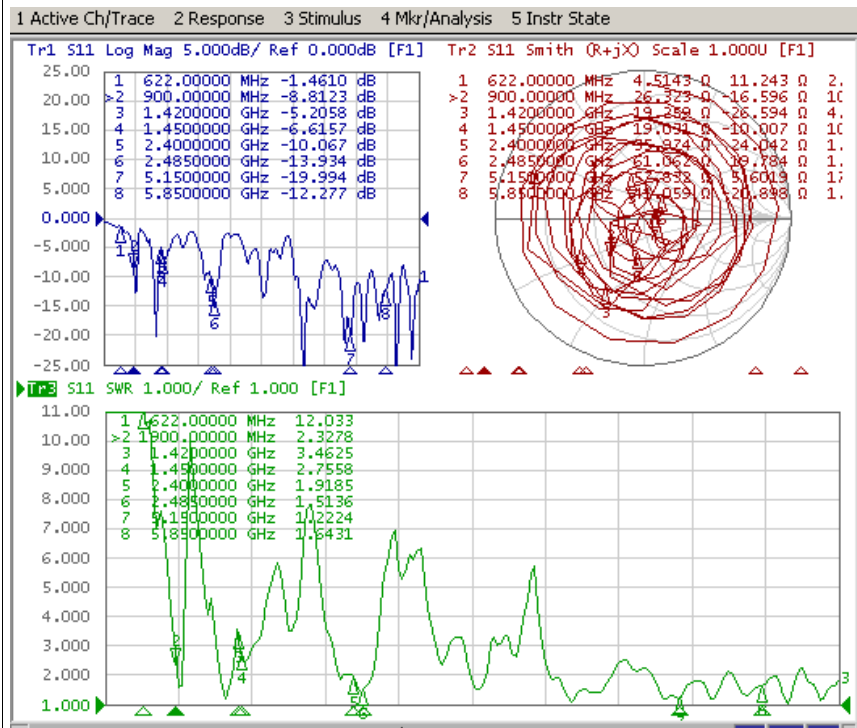
| Electrical Properties   |                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------|
| Frequency               | 860-928MHz<br>1420-1510MHz<br>2.4-2.5GHz<br>5.15-5.85GHz                                  |
| Impedance               | 50 Ohm Nominal                                                                            |
| V.S.W.R                 | 12.0 Max@860-928MHz<br>3.5 Max@1420-1510MHz<br>2.0 Max@2.4-2.5GHz<br>2.5 Max@5.15-5.85GHz |
| Gain                    | 0.3 dBi@860-928MHz<br>1.6 dBi@1420-1510MHz<br>1.2 dBi@2.4-2.5GHz<br>4.6 dBi@5.15-5.85GHz  |
| Radiation               | Omni-directional                                                                          |
| Polarization            | Linear                                                                                    |
| Physical Properties     |                                                                                           |
| Connector               | IPEX                                                                                      |
| Cable Type              | O.D.1.37mm Low loss                                                                       |
| Cable Length            | 308mm                                                                                     |
| Cable Color             | Red                                                                                       |
| Operating Temp.         | -40 ~ +85 °C                                                                              |
| Storage Temp / Humidity | 25±5°C / <70%                                                                             |



东莞市一佳电子通讯科技有限公司  
DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

## Antenna Performance Test

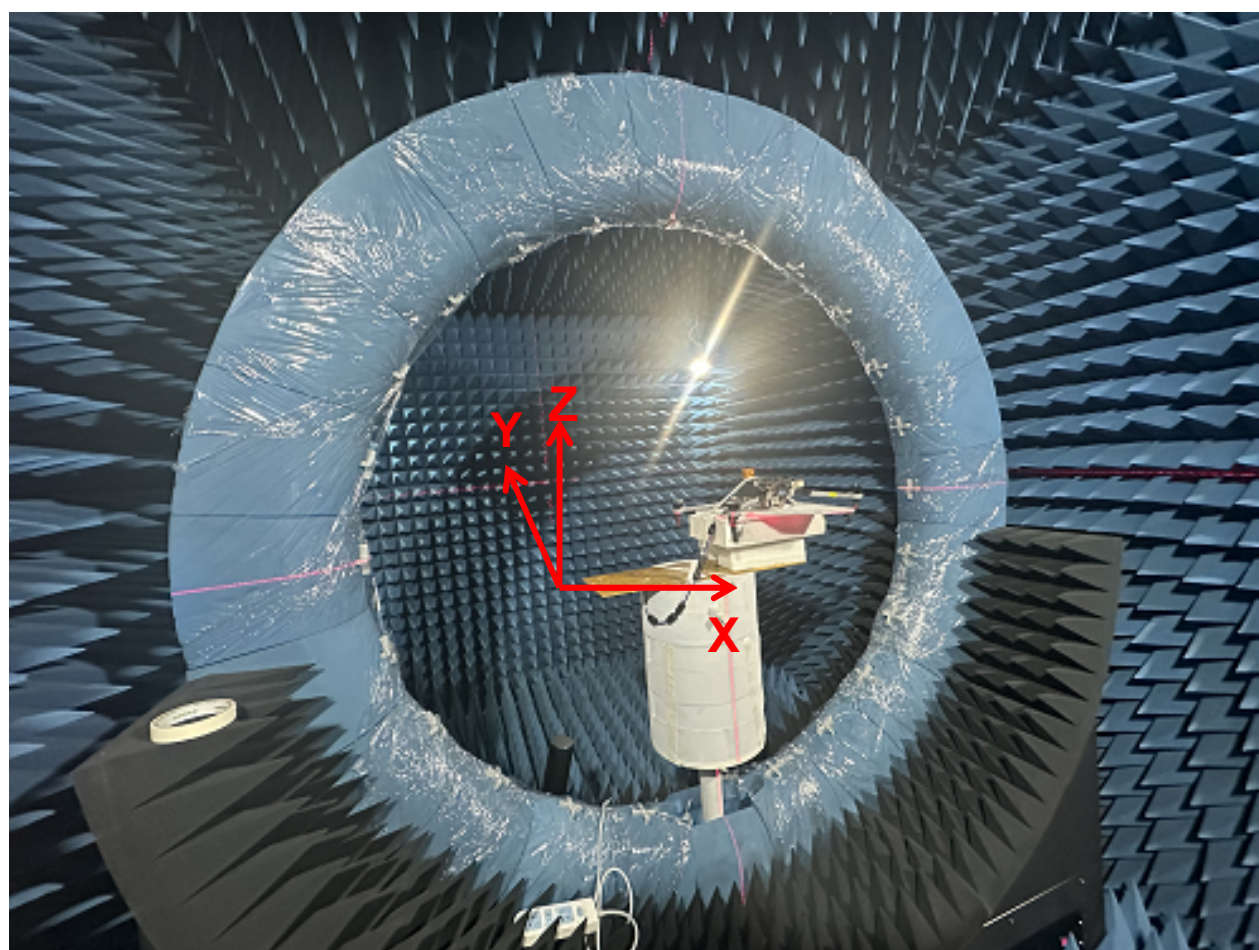
*Agilent  
E5071C  
S  
Parameter  
Test //  
BJL  
Antenna*





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DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD

## *Antenna Passive Test*





| Passive Test For BJL Antenna |             |              |               |
|------------------------------|-------------|--------------|---------------|
| Freq<br>(MHz)                | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
| 820                          | 16.0        | -8.0         | -2.7          |
| 830                          | 15.0        | -8.2         | -3.1          |
| 840                          | 17.5        | -7.6         | -3.0          |
| 850                          | 19.6        | -7.1         | -2.3          |
| 860                          | 21.7        | -6.6         | -1.9          |
| 870                          | 25.4        | -6.0         | -1.6          |
| 880                          | 26.4        | -5.8         | -1.5          |
| 890                          | 27.7        | -5.6         | -0.9          |
| 900                          | 29.7        | -5.3         | -0.6          |
| 910                          | 31.6        | -5.0         | -0.2          |
| 920                          | 35.8        | -4.5         | 0.3           |
| 930                          | 35.7        | -4.5         | 0.1           |
| 940                          | 35.8        | -4.5         | -0.4          |
| 950                          | 33.6        | -4.7         | -0.9          |
| 960                          | 26.6        | -5.8         | -1.7          |



| Passive Test For BJL Antenna |             |              |               |
|------------------------------|-------------|--------------|---------------|
| Freq<br>(MHz)                | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
| 1430                         | 20.4        | -6.9         | -3.1          |
| 1438                         | 16.2        | -7.9         | -3.0          |
| 1446                         | 25.4        | -6.0         | -1.3          |
| 1454                         | 35.9        | -4.5         | 0.1           |
| 1462                         | 38.6        | -4.1         | 0.6           |
| 1470                         | 38.2        | -4.2         | 0.8           |
| 1478                         | 38.6        | -4.1         | 0.8           |
| 1486                         | 41.1        | -3.9         | 0.6           |
| 1494                         | 47.1        | -3.3         | 1.4           |
| 1502                         | 50.1        | -3.0         | 1.5           |
| 1510                         | 50.0        | -3.0         | 1.6           |



| Passive Test For BJL Antenna |             |              |               |
|------------------------------|-------------|--------------|---------------|
| Freq<br>(MHz)                | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
| 2400                         | 49.8        | -3.0         | 0.9           |
| 2410                         | 50.1        | -3.0         | 1.0           |
| 2420                         | 49.2        | -3.1         | 1.0           |
| 2430                         | 48.2        | -3.2         | 0.9           |
| 2440                         | 46.3        | -3.3         | 0.8           |
| 2450                         | 43.3        | -3.6         | 0.5           |
| 2460                         | 41.0        | -3.9         | 0.5           |
| 2470                         | 41.9        | -3.8         | 0.8           |
| 2480                         | 43.7        | -3.6         | 1.0           |
| 2490                         | 46.6        | -3.3         | 1.2           |
| 2500                         | 46.5        | -3.3         | 1.2           |

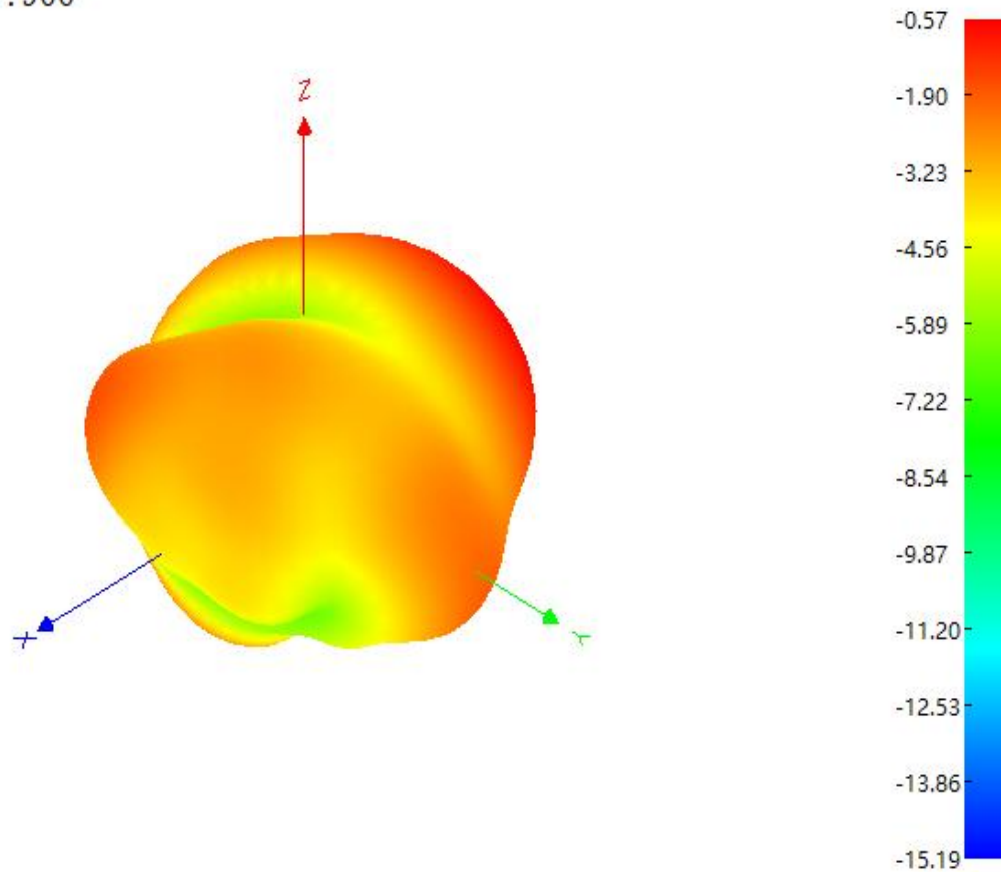


| Passive Test For BJL Antenna |             |              |               |
|------------------------------|-------------|--------------|---------------|
| Freq<br>(MHz)                | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
| 5150                         | 31.6        | -5.0         | 2.1           |
| 5200                         | 33.0        | -4.8         | 2.1           |
| 5250                         | 36.1        | -4.4         | 1.5           |
| 5300                         | 36.1        | -4.4         | 1.8           |
| 5350                         | 39.7        | -4.0         | 2.6           |
| 5400                         | 39.5        | -4.0         | 2.1           |
| 5450                         | 39.9        | -4.0         | 2.8           |
| 5500                         | 39.4        | -4.1         | 3.2           |
| 5550                         | 36.4        | -4.4         | 3.4           |
| 5600                         | 33.4        | -4.8         | 3.1           |
| 5650                         | 34.0        | -4.7         | 3.2           |
| 5700                         | 37.8        | -4.2         | 4.1           |
| 5750                         | 40.3        | -4.0         | 4.6           |
| 5800                         | 42.2        | -3.8         | 4.6           |
| 5850                         | 40.4        | -3.9         | 4.2           |



## Radiation Pattern For BJL Antenna (900MHz)

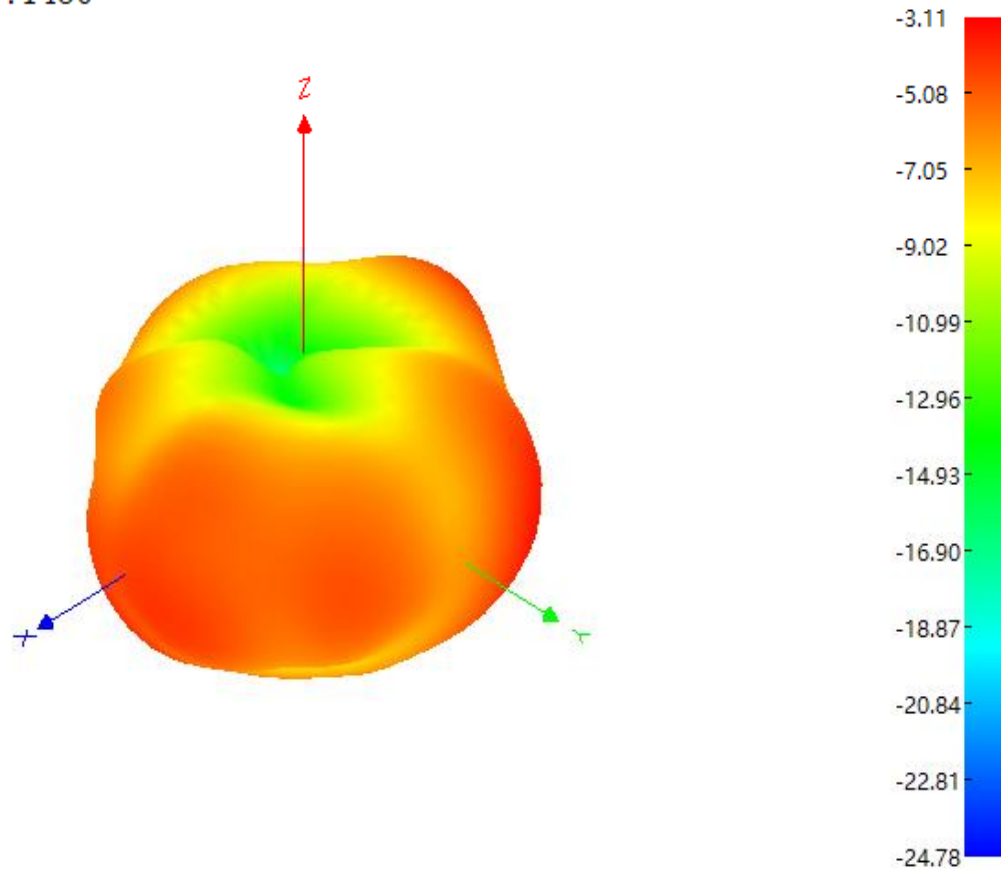
Frequency (MHz) : 900





## Radiation Pattern For BJL Antenna (1430MHz)

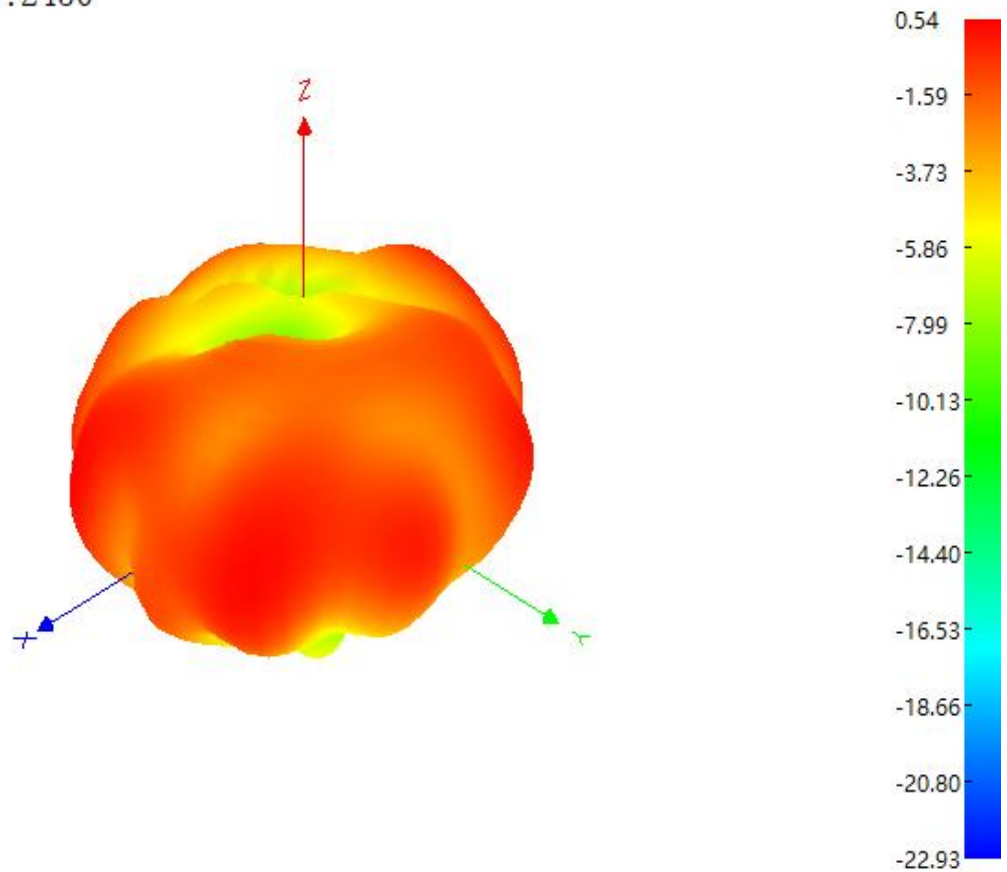
Frequency (MHz) : 1430





## Radiation Pattern For BJL Antenna (2450MHz)

Frequency (MHz) : 2450





## Radiation Pattern For BJL Antenna (5500MHz)

Frequency (MHz) : 5500

