



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 2021/11/18  
Date

编号 21111802  
File No

版本 1.0  
Revision

客户  
CUSTOMER: Autel Robotics Co.,Ltd.

客户料号 Model x mini

CUSTOMER NO:

品名 RF Antenna  
PART NAME:

供方料号 YJI01.005.034.305A  
SUPPLIER NO:

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                                                             |        |            |
|-------------------------------------------------------------------------------------|--------|------------|
|  | CHECK  | DESIGN     |
| ChenGuoqiang                                                                        | WenXue | ChenXingyi |

YJ-RD-F04-A



# 承认书项目表

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| 12      | -                             | -                          | -                     |
| 13      | -                             | -                          | -                     |

RoHS  
Compatible

CUSTOMER  
PART NO

REV.

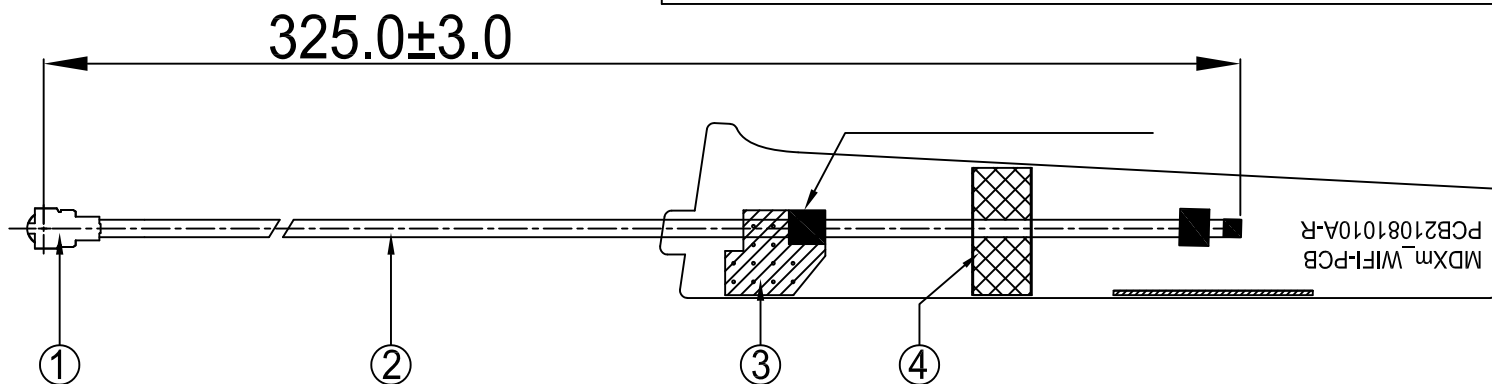
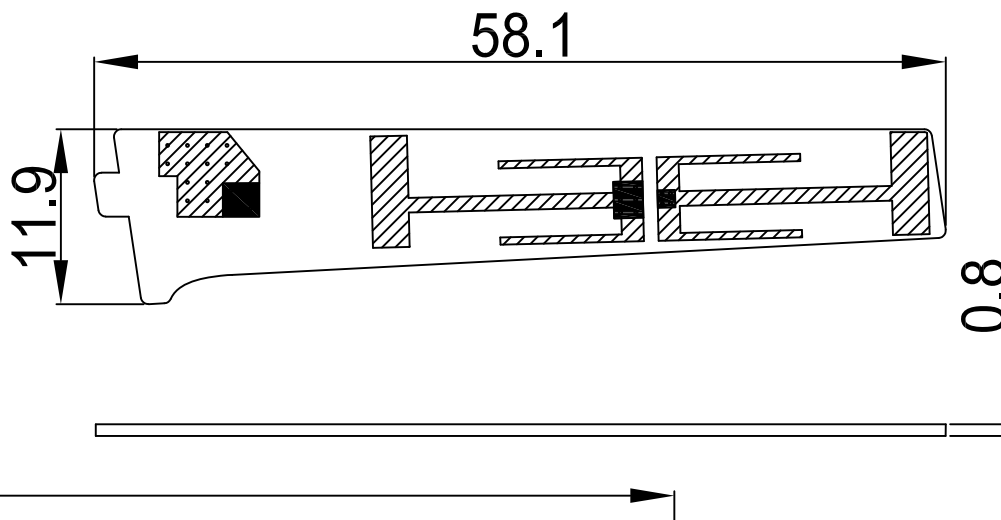
DESCRIPTION

DATE

A

B

C



|    |                |                         |          |               |      |
|----|----------------|-------------------------|----------|---------------|------|
| 4  | Paste+EVA      | 7.5*3.0*2.0MM           | EVA      | EVA10429A.P01 | 1    |
| 3  | PCB            | 58.4*11.9*0.8MM         | PCB      | PCB10456A.P01 | 1    |
| 2  | Coaxial Cable  | O.D.1.37 Black Low loss | O.D.1.37 | COA10001A.P01 | 1    |
| 1  | Mini Connector | Au Plated 1代            | Cu       | TER10001A.P01 | 1    |
| NO | PART NAME      | DESCRIPTION             | Material | Part Number   | Q.TY |



东莞市一佳电子通讯科技有限公司

Dongguan YiJia Electronics Communication Technology Co.,Ltd. Tel:0769-85535057 Fax:0769-81664308

PART NAME: RF Antenna

PART NO.: YJ101.005.034.305A

DATE: 2021-11-03

APPROVED BY

CHECKED BY

DESIGNED BY

UNITS: mm

SCALE: 1/1

REVISION: A

Tolerance  
X.X ±0.50  
X.XX±0.15  
X° ±3°



# 天线规格

## Antenna Specification

### Electrical Properties

|              |                                          |
|--------------|------------------------------------------|
| Frequency    | 2.4-2.5GHz<br>5.15-5.85GHz               |
| Impedance    | 50 Ohm Nominal                           |
| V.S.W.R      | 2.0 Max                                  |
| Gain         | 1.1dBi@2.4-2.5GHz<br>3.6dBi@5.15-5.85GHz |
| Radiation    | Omni-directional                         |
| Polarization | Linear                                   |

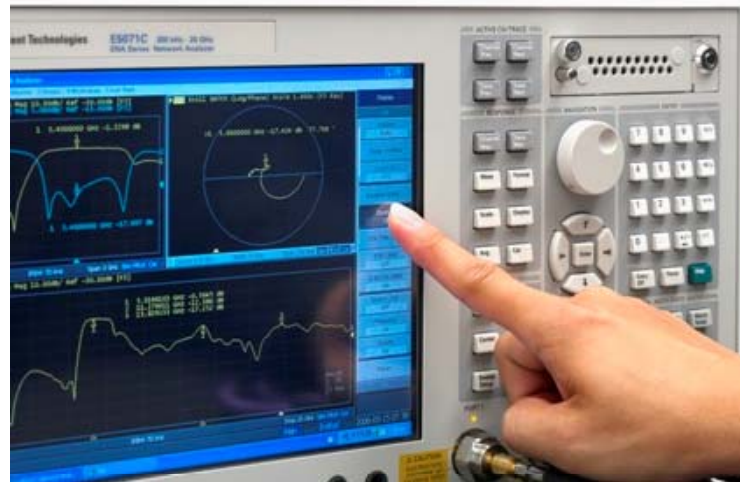
### Physical Properties

|                         |                   |
|-------------------------|-------------------|
| Connector               | 1 Generation IPEX |
| Cable Type              | O.D.1.37mm        |
| Cable Length            | 325mm             |
| Cable Color             | Black             |
| Operating Temp.         | -40 ~ +85 °C      |
| Storage Temp / Humidity | 25±5°C / <70%     |

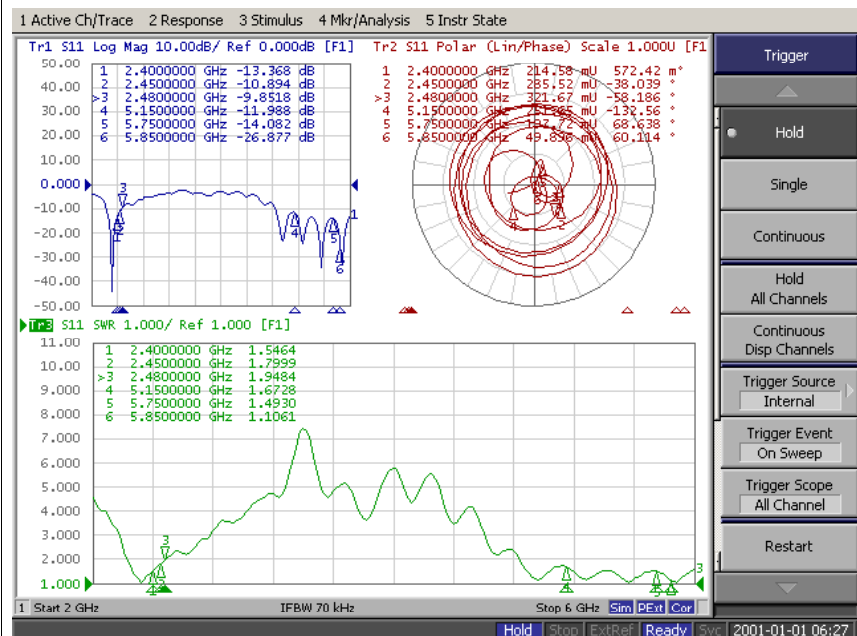


# Antenna Performance Test

**Agilent  
E5071B**

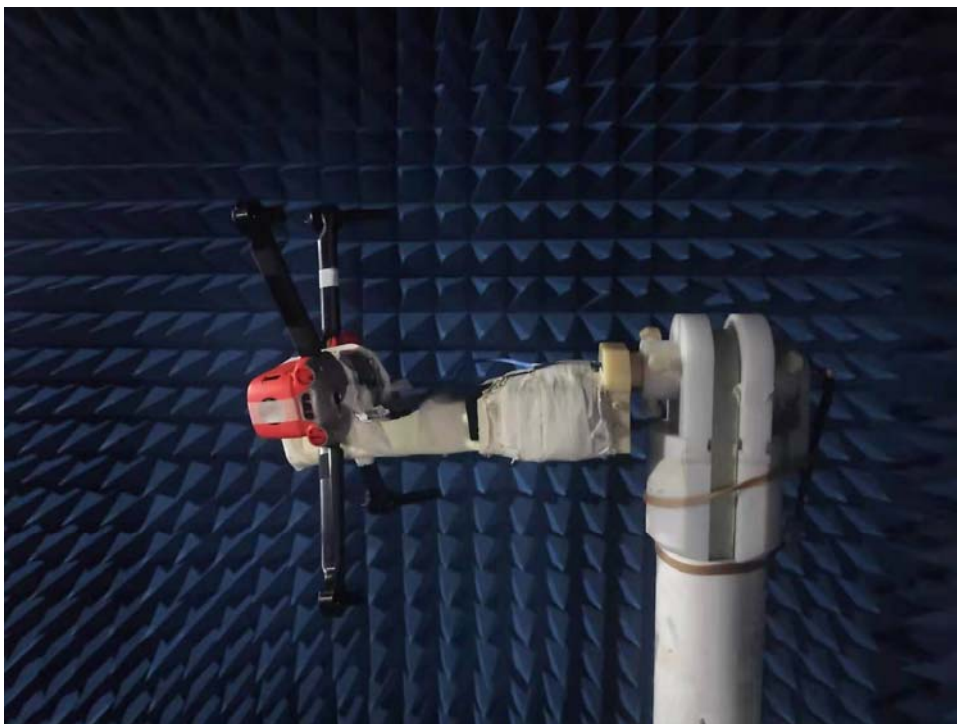
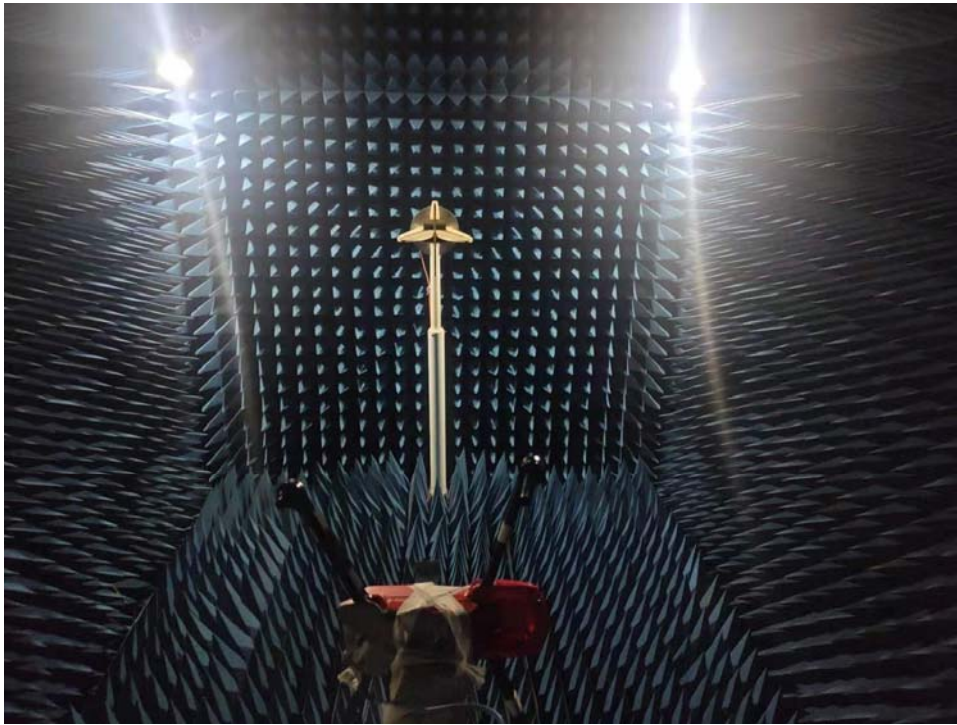


**S  
Parameter  
Test //**  
**WIFI  
Antenna**





## *Antenna Passive Test*





### Passive Test For WIFI Antenna

| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|
| 2400          | 54.5        | -2.6         | 0.7           |
| 2410          | 54.7        | -2.6         | 1.1           |
| 2420          | 52.7        | -2.8         | 1.1           |
| 2430          | 51.1        | -2.9         | 1.0           |
| 2440          | 49.2        | -3.1         | 1.0           |
| 2450          | 50.4        | -3.0         | 1.1           |
| 2460          | 48.5        | -3.1         | 1.0           |
| 2470          | 48.0        | -3.2         | 0.9           |
| 2480          | 48.1        | -3.2         | 0.8           |
| 2490          | 46.8        | -3.3         | 0.6           |
| 2500          | 44.4        | -3.5         | 0.2           |



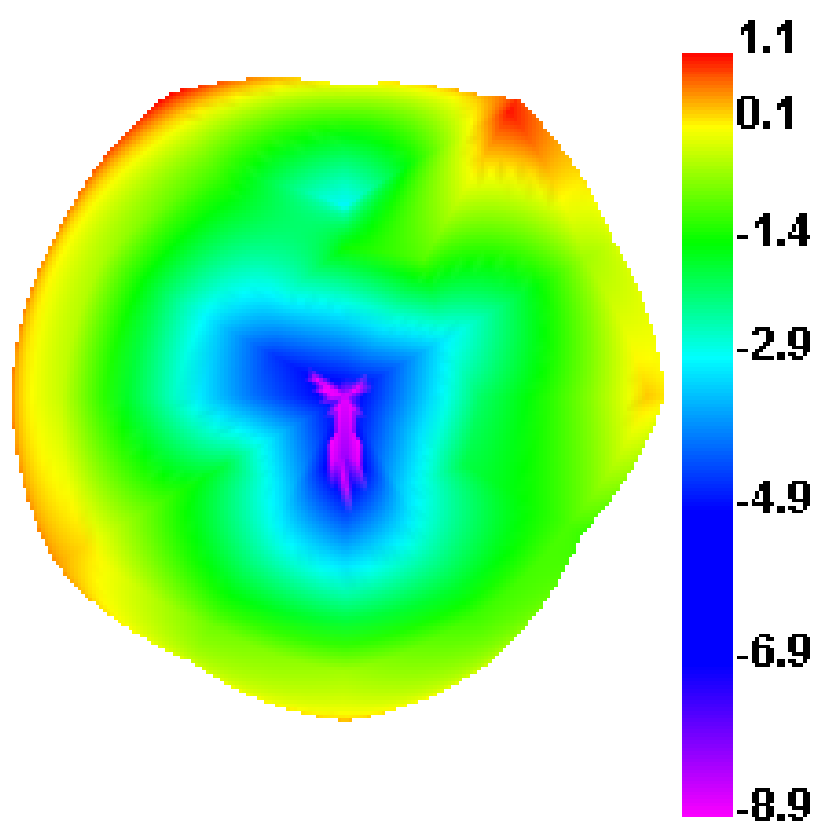
### Passive Test For WiFi Antenna

| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|
| 5150          | 42.5        | -3.7         | 3.2           |
| 5200          | 47.9        | -3.2         | 3.5           |
| 5250          | 52.5        | -2.8         | 3.6           |
| 5300          | 56.3        | -2.5         | 3.2           |
| 5350          | 52.6        | -2.8         | 2.8           |
| 5400          | 50.3        | -3.0         | 2.4           |
| 5450          | 47.9        | -3.2         | 2.2           |
| 5500          | 44.4        | -3.5         | 1.9           |
| 5550          | 42.3        | -3.7         | 1.8           |
| 5600          | 48.7        | -3.1         | 2.6           |
| 5650          | 61.2        | -2.1         | 3.2           |
| 5700          | 63.2        | -2.0         | 3.6           |
| 5750          | 58.2        | -2.4         | 2.9           |
| 5800          | 49.1        | -3.1         | 2.4           |
| 5850          | 46.9        | -3.3         | 2.7           |



## Radiation Patten For 2450MHz

**2450.000MHz**





## Radiation Patten For 5750MHz

**5750.000MHz**

