



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 2021/08/06  
Date

编号 21080603  
File No

版本 1.0  
Revision

客户 Autel Robotics Co.,Ltd.

CUSTOMER:

客户料号 Medol X Mini

CUSTOMER NO:

品名 WiFi Dual-frequency Antenna

PART NAME:

供方料号 YJI01.005.034.303A

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                                                                      |        |            |
|----------------------------------------------------------------------------------------------|--------|------------|
|  APPROVAL | 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

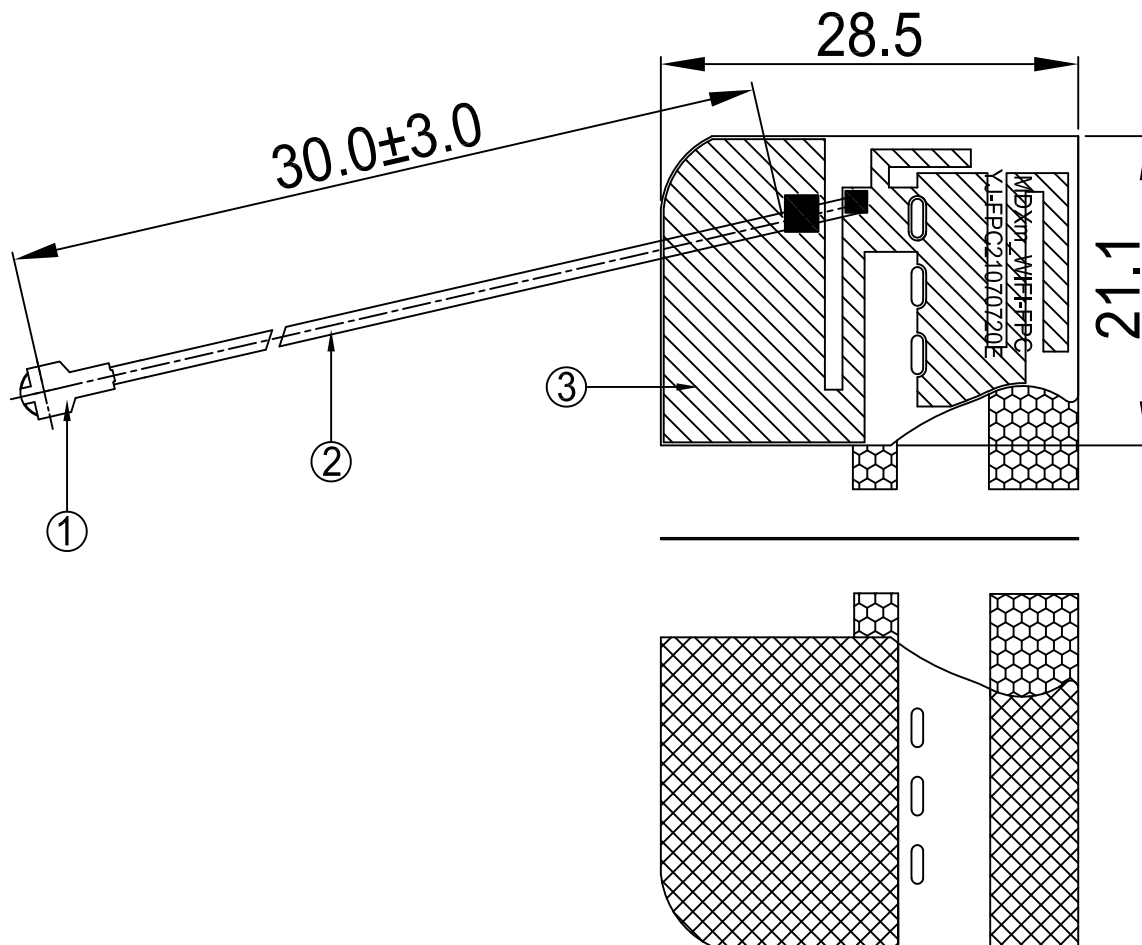
REV.

DESCRIPTION

DATE



2021-08-04



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: WiFi Dual-frequency Antenna

PART NO.: YJ101.005.034.303A

DATE: 2021-08-04

APPROVED BY

CHECKED BY

DESIGNED BY



Tolerance

UNITS: mm

X.X ±0.50

SCALE: 1/1

X.XX±0.15

REVISION: A

X° ±3°

|    |                |                |          |               |      |
|----|----------------|----------------|----------|---------------|------|
| 3  | FPCB           | 28.5*21.1MM    | FPCB     | FPC1000XA.P01 | 1    |
| 2  | Coaxial Cable  | O.D.0.81 Black | O.D.0.81 | COA1000XA.P01 | 1    |
| 1  | Mini Connector | Au Plated 4    | Cu       | TER1000XA.P01 | 1    |
| NO | PART NAME      | DESCRIPTION    | Material | Part Number   | Q.TY |



# 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@2.4-2.5GHz<br>5.0 Max@5.15-5.85GHz |
| Gain         | 2.2dBi@2.4-2.5GHz<br>5.4dBi@5.15-5.85GHz   |
| Radiation    | Omni-directional                           |
| Polarization | Linear                                     |

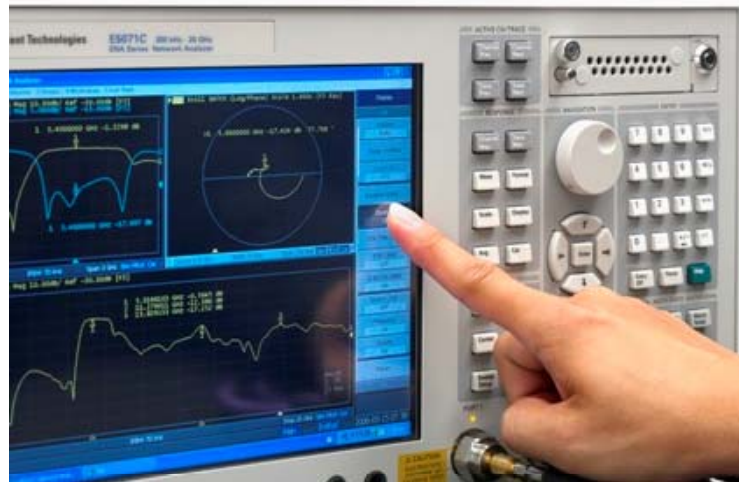
### Physical Properties

|                         |                 |
|-------------------------|-----------------|
| Connector               | Generation 4PEX |
| Cable Type              | O.D.0.81mm      |
| Cable Length            | 30mm            |
| Cable Color             | Black           |
| Operating Temp.         | -40 ~ +85 °C    |
| Storage Temp / Humidity | 25±5°C / <70%   |

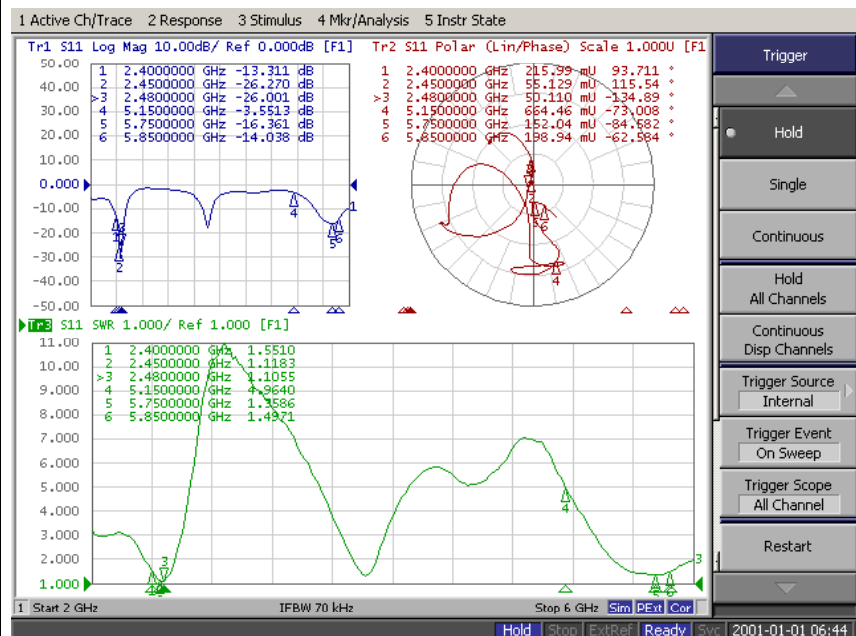


# Antenna Performance Test

**Agilent  
E5071B**

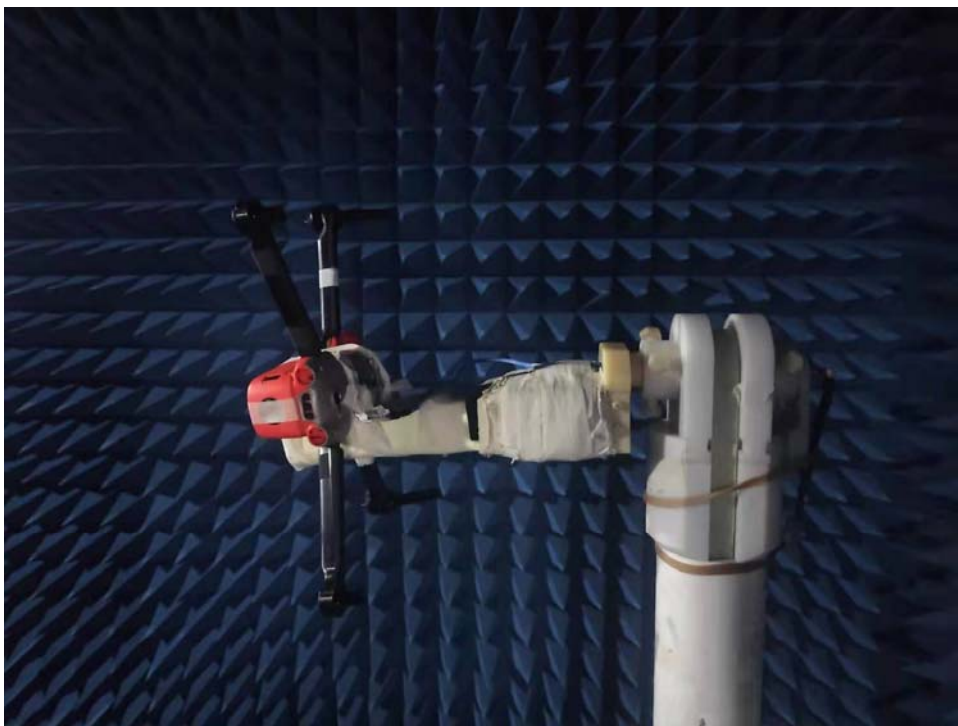
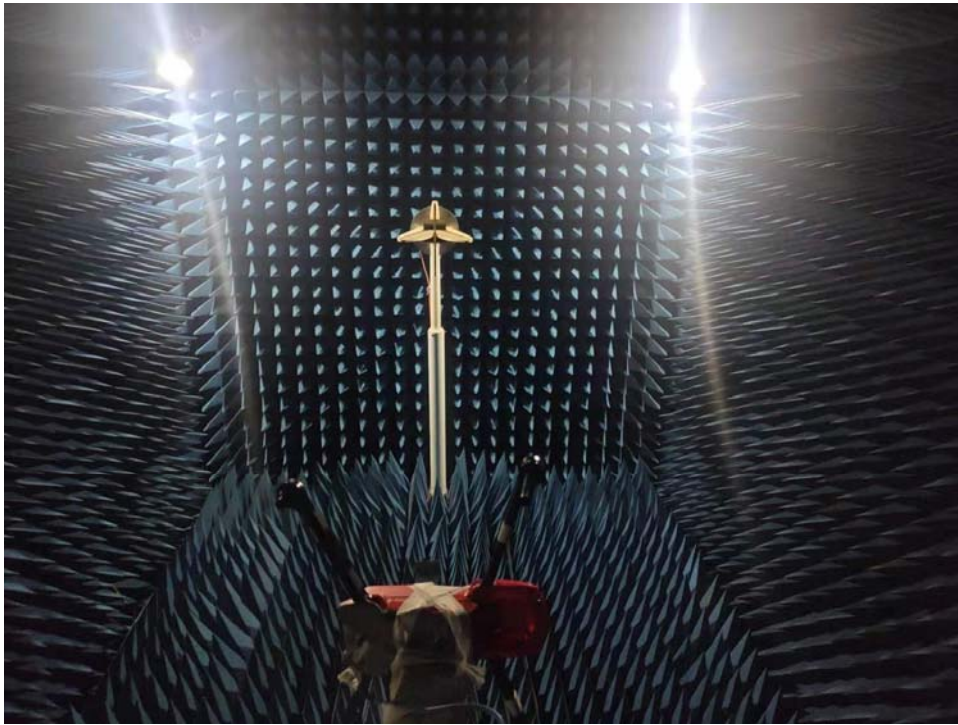


**S  
Parameter  
Test //  
WIFI  
Antenna**





## *Antenna Passive Test*





### Passive Test For WIFI Antenna

| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|
| 2400          | 39.5        | -4.0         | 1.7           |
| 2410          | 40.9        | -3.9         | 2.1           |
| 2420          | 42.0        | -3.8         | 1.9           |
| 2430          | 42.2        | -3.7         | 1.9           |
| 2440          | 42.6        | -3.7         | 1.7           |
| 2450          | 46.0        | -3.4         | 2.1           |
| 2460          | 46.4        | -3.3         | 2.0           |
| 2470          | 48.1        | -3.2         | 2.2           |
| 2480          | 47.6        | -3.2         | 2.0           |
| 2490          | 47.8        | -3.2         | 1.9           |
| 2500          | 48.3        | -3.2         | 1.9           |



### Passive Test For WiFi Antenna

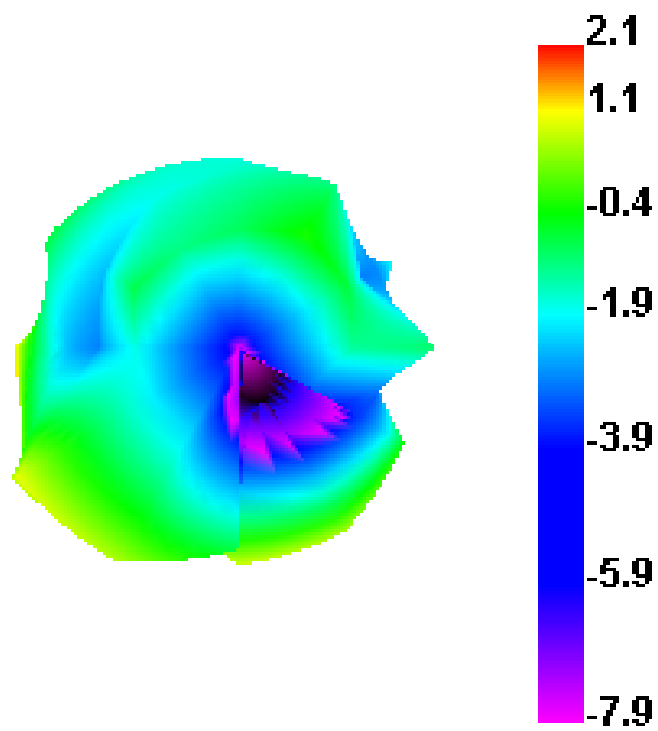
| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|
| 5150          | 22.0        | -6.6         | -1.2          |
| 5200          | 23.8        | -6.2         | -0.6          |
| 5250          | 25.5        | -5.9         | -0.2          |
| 5300          | 31.6        | -5.0         | 0.4           |
| 5350          | 38.7        | -4.1         | 1.3           |
| 5400          | 40.3        | -4.0         | 1.7           |
| 5450          | 42.5        | -3.7         | 2.2           |
| 5500          | 46.1        | -3.4         | 3.2           |
| 5550          | 46.8        | -3.3         | 3.7           |
| 5600          | 50.0        | -3.0         | 4.0           |
| 5650          | 71.0        | -1.5         | 5.4           |
| 5700          | 64.3        | -1.9         | 4.6           |
| 5750          | 59.6        | -2.3         | 4.1           |
| 5800          | 53.8        | -2.7         | 3.2           |
| 5850          | 53.3        | -2.7         | 2.8           |





## Radiation Patten For 2450MHz

**2450.000MHz**





## Radiation Patten For 5850MHz

**5850.000MHz**

