

DJI Antenna Datasheet

RC331 antenna

2023-02-23



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## Revision history

| Version | Change notes | Modifier    | Date       |
|---------|--------------|-------------|------------|
| V1.0    | First draft. | Stephen.Wan | 2023.02.22 |
|         |              |             |            |
|         |              |             |            |
|         |              |             |            |

# DJI Antenna Datasheet

## 1、 Basic Specifications

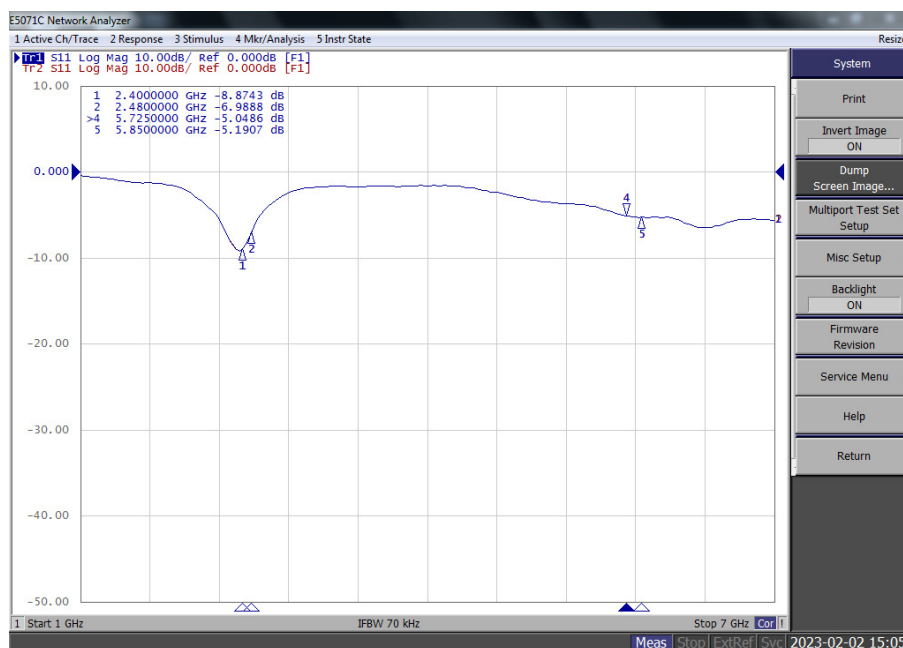
| No. | Specification          | Descriptions                                                                                                                                                                                                                                                                         | Notes |  |
|-----|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|
| 1   | Antenna Name           | RC331 WiFi Ant                                                                                                                                                                                                                                                                       |       |  |
| 2   | Brand                  | DJI                                                                                                                                                                                                                                                                                  |       |  |
| 3   | Operation<br>Frequency | 2.4~2.483GHz;<br>5.15~5.25GHz;<br>5.725~5.85GHz                                                                                                                                                                                                                                      |       |  |
| 4   | Connector Type         | Ipex-1                                                                                                                                                                                                                                                                               |       |  |
| 5   | Impedance              | 50ohm                                                                                                                                                                                                                                                                                |       |  |
| 6   | Gain                   | Ant0:<br><a href="#">2.5dBi@2.4~2.483GHz</a> WIFI<br><a href="#">4dBi@5.15~5.25GHz</a> WIFI<br><a href="#">5dBi@5.725~5.875GHz</a> WIFI<br>Ant1:<br><a href="#">3.5dBi@2.4~2.483GHz</a> WIFI<br><a href="#">1dBi@5.15~5.25GHz</a> WIFI<br><a href="#">3.5dBi@5.725~5.875GHz</a> WIFI |       |  |
| 7   | Efficiency             | $\geq 20\%$ WIFI                                                                                                                                                                                                                                                                     |       |  |
| 8   | VSWR                   | $\leq 2$                                                                                                                                                                                                                                                                             |       |  |
| 9   | Polarization type      | Linear                                                                                                                                                                                                                                                                               |       |  |
| 10  | 3dB Beamwidth          | Omnidirectional horizon                                                                                                                                                                                                                                                              |       |  |
| 11  | Weight                 |                                                                                                                                                                                                                                                                                      |       |  |
| 12  | Antenna type           | PCB                                                                                                                                                                                                                                                                                  |       |  |

## 2、 Antenna Return Loss/VSWR

### 2.1 W IFI antenna return loss

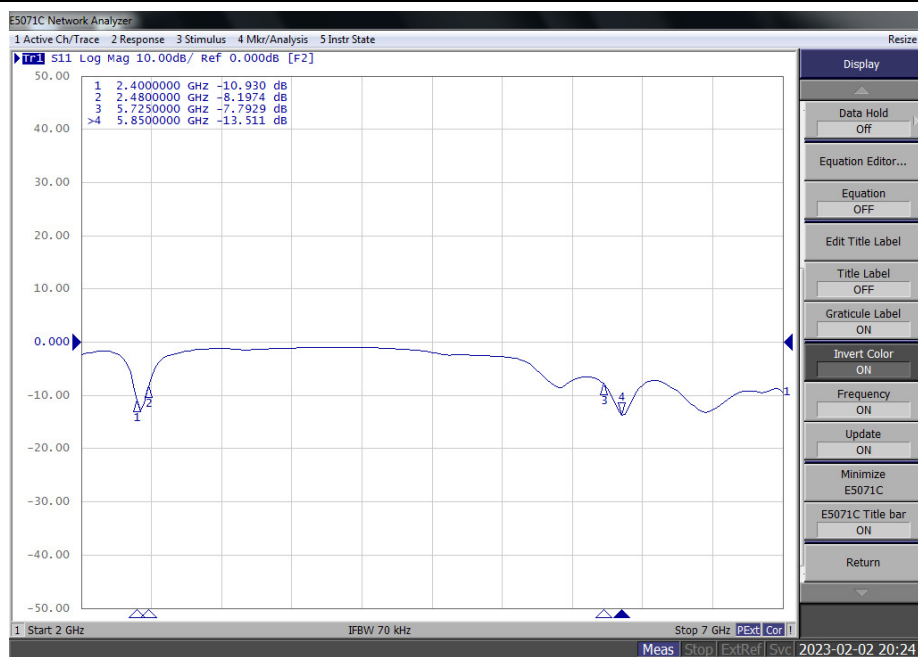
Ant0

| Mark(GHz) | 2.4  | 2.48 | 5.725 | 5.85 |
|-----------|------|------|-------|------|
| S11       | -8.8 | -7   | -5    | -5.2 |



Ant1

| Mark(GHz) | 2.4   | 2.48 | 5.725 | 5.85  |
|-----------|-------|------|-------|-------|
| S11       | -10.9 | -8.2 | -7.8  | -13.5 |

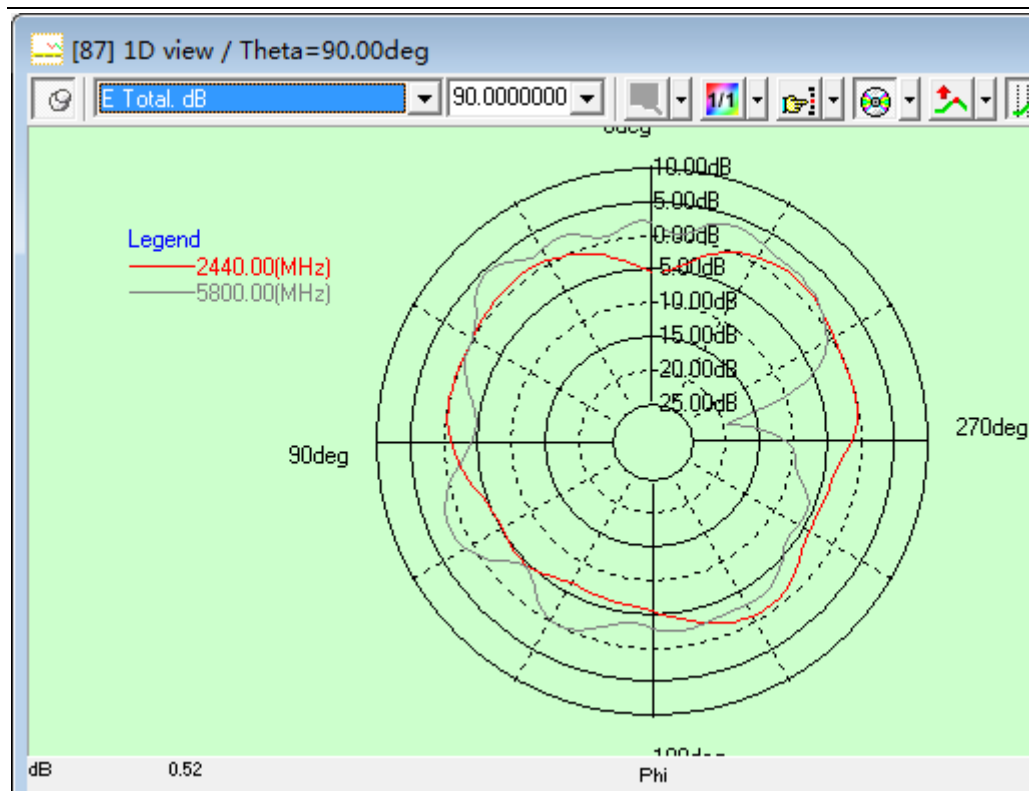


### 3、 Antenna Gain

#### 3.1 wifi

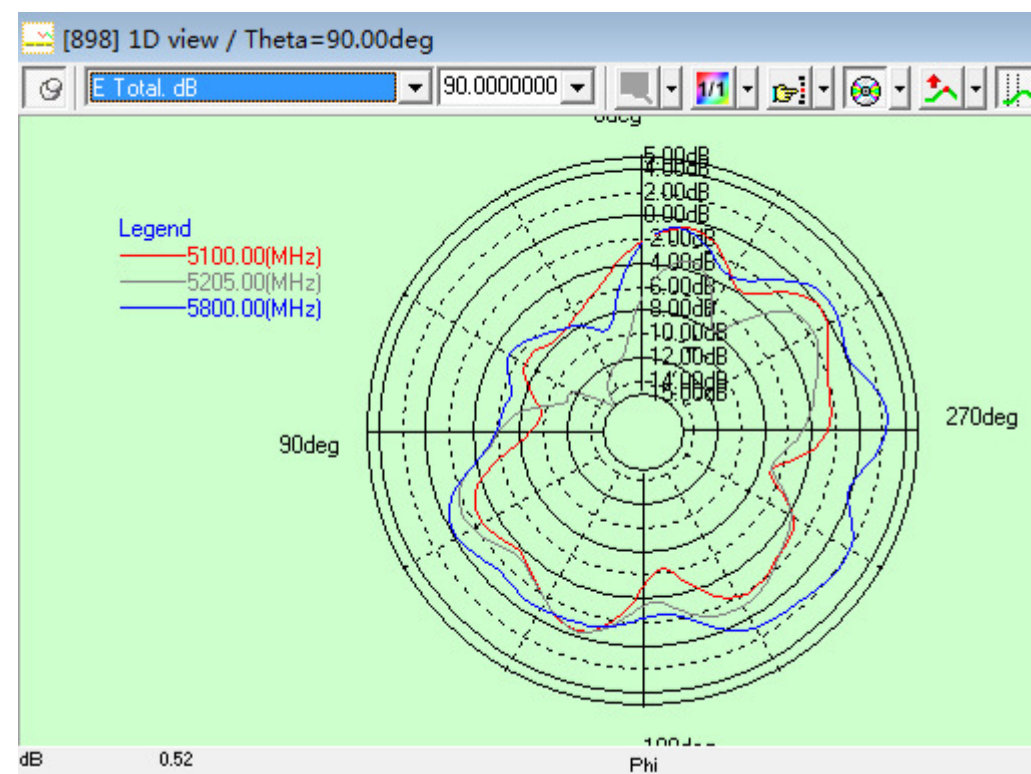
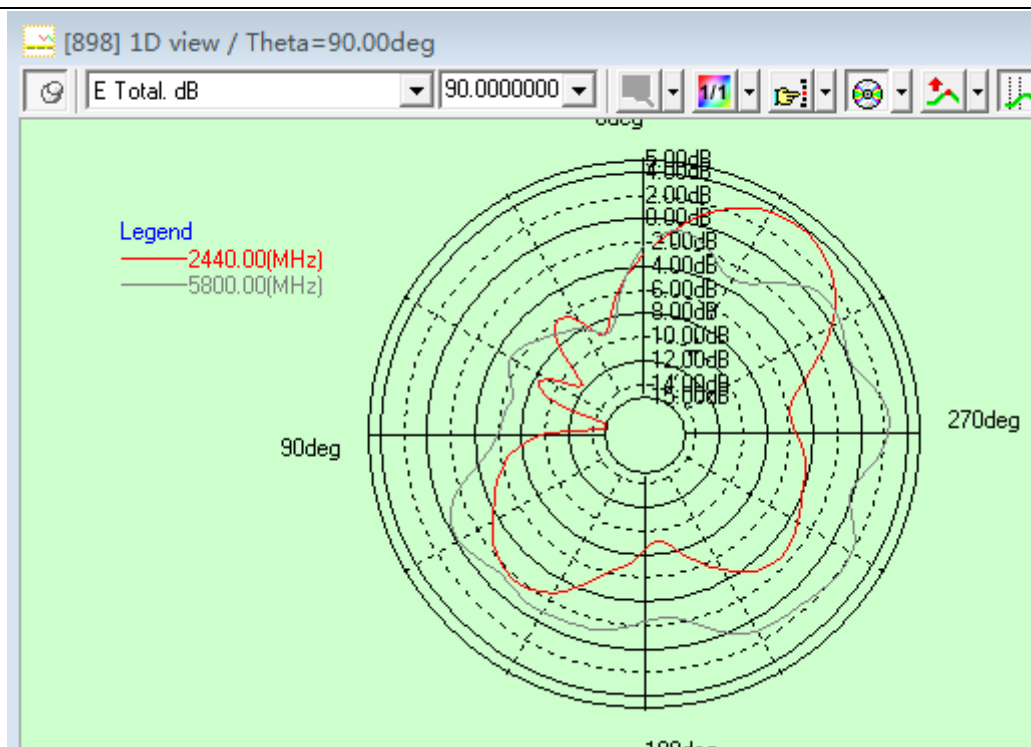
*Ant0*

| Frequency | Efficiency | Gain. dB |
|-----------|------------|----------|
| 2400MHz   | 48%        | 2.50     |
| 2420MHz   | 47%        | 2.50     |
| 2440MHz   | 45%        | 2.19     |
| 2460MHz   | 46%        | 2.29     |
| 2480MHz   | 46%        | 2.15     |
| 5160MHz   | 51%        | 4.00     |
| 5190MHz   | 52%        | 4.00     |
| 5205MHz   | 53%        | 3.93     |
| 5235MHz   | 50%        | 3.52     |
| 5250MHz   | 52%        | 3.58     |
| 5730MHz   | 63%        | 4.61     |
| 5760MHz   | 61%        | 4.64     |
| 5790MHz   | 69%        | 5.00     |
| 5800MHz   | 65%        | 4.29     |
| 5850MHz   | 67%        | 4.82     |



Ant1

| Frequency | Efficiency | Gain. dB |
|-----------|------------|----------|
| 2400MHz   | 53%        | 3.50     |
| 2440MHz   | 52%        | 3.50     |
| 2480MHz   | 48%        | 3.00     |
| 5205MHz   | 41%        | 0.89     |
| 5220MHz   | 42%        | 1.00     |
| 5730MHz   | 51%        | 3.48     |
| 5800MHz   | 52%        | 3.50     |
| 5850MHz   | 49%        | 3.18     |





#### 4、 Structure drawing

##### 5.1 WIFI antenna

###### Ant0



###### Ant1



Name of the antenna manufacturer: Shenzhen ZTX Communication Technology Co., LTD.

Address of the antenna manufacturer: No.34 Shilong Road, Bao'an District, Shenzhen, Guangdong Province

Website of the antenna manufacturer: [www.ztxun.com](http://www.ztxun.com)