

# 承 认 书

## APPROVAL SHEET

客户名称

CUSTOMER NAME:

产品名称

2.4/5.8G W126 黑色天线+剥线 L=15mm

PRODUCT NAME:

客户料号

CUSTOMER P/N:

优比电子料号

Youbi

P/N:

UB02C15B5D5464A

REV: A

|              | MANUFACTURER<br>SIGNATURE   | CUSTOMER<br>SIGNATURE |
|--------------|---|-----------------------|
| CHECKED BY:  | Lina<br>       |                       |
| APPROVED BY: | Yuefei.zhu<br> |                       |
| DATE:        | 2024/9/11   |                       |

### Modification History

| Version | Content Revision | Issued by | Date       |
|---------|------------------|-----------|------------|
| A       | Original version | lina      | 2024-9-111 |
|         |                  |           |            |
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## *Content*

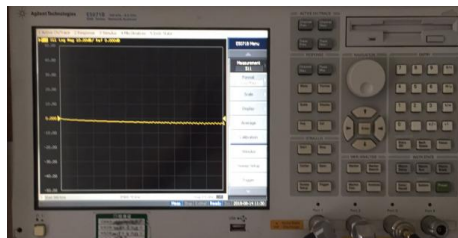
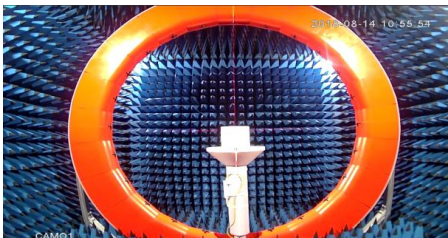
| <i>Item</i> | <i>Description</i>       |
|-------------|--------------------------|
| 1.-----     | Electrical Specification |
| 2.-----     | Test Items and Equipment |
| 3.-----     | S Parameter              |
| 4.-----     | Efficiency and Gain      |
| 5.-----     | Radiation Pattern        |
| 6.-----     | Mechanical Specification |

## 1. Electrical Specification

| Characteristics       | Specifications         | Unit |
|-----------------------|------------------------|------|
| Outline Dimensions    | Ø11.4x183.5,L15        | mm   |
| Frequency             | 2400-2500/5150-5850MHz | MHz  |
| Impedance             | 50                     | Ω    |
| VSWR                  | < 2.0                  |      |
| Polarization          | Linear Polarization    |      |
| Gain                  | 4±1                    | dBi  |
| Efficiency            | >60                    | %    |
| Connector Type        | MHF-1-Plug             |      |
| Operating temperature | -40℃~+80℃              |      |
| Storage Temp          | -40℃~+80℃              |      |

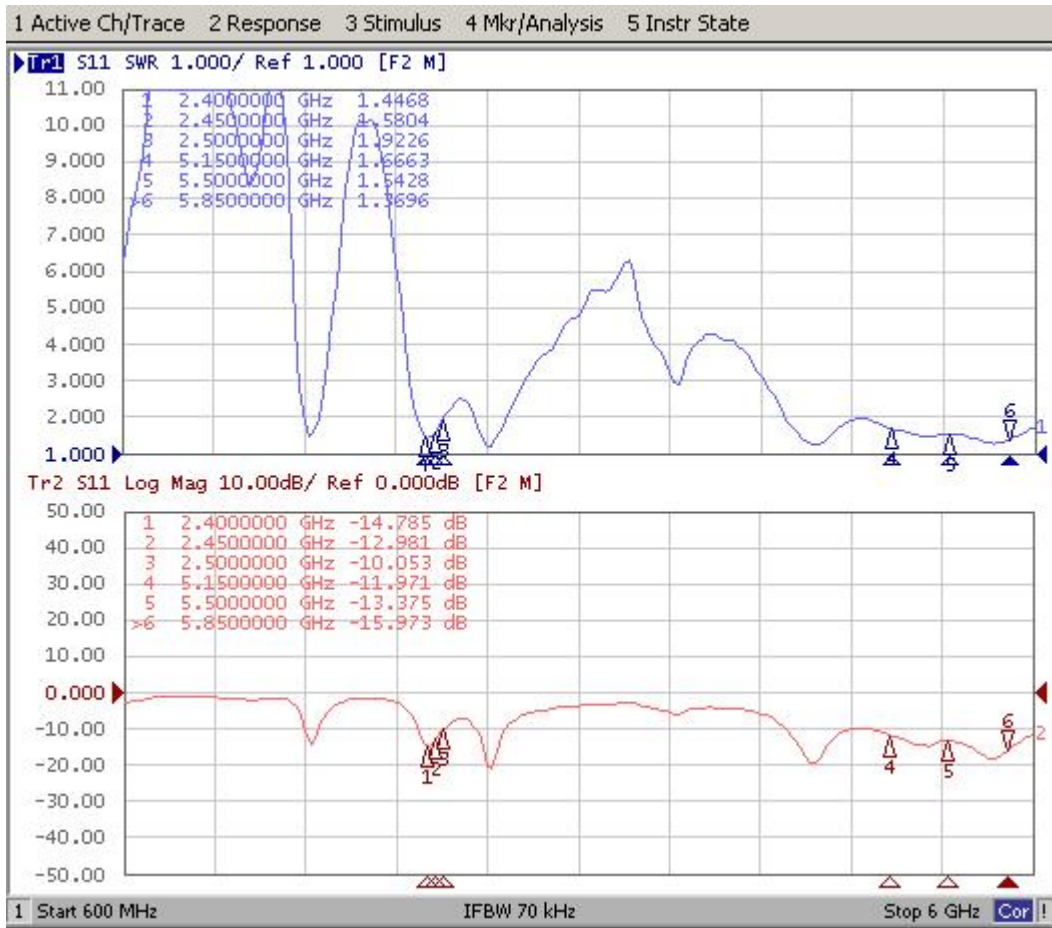
## 2. Test Items and Equipment

|   | Test items                                   | Test equipment   |
|---|--|--|
| S Parameter                             | 1.Return Loss<br>2.VSWR                      | Network analyzer<br>(Agilent E5071B)   |
| The whole machine of Passive parameters | 1.Frequency<br>2.Gain<br>3.Radiation Pattern | 1.3D microwave darkroom<br>(5m*5m*5m)<br>2.Network analyzer<br>(Agilent E5071B)      |
| The whole machine of Active parameters  | 1.TRP<br>2.TIS                               | 1.3D microwave darkroom<br>(5m*5m*5m)<br>2.Comprehensive test instrument<br>(CMW500) |

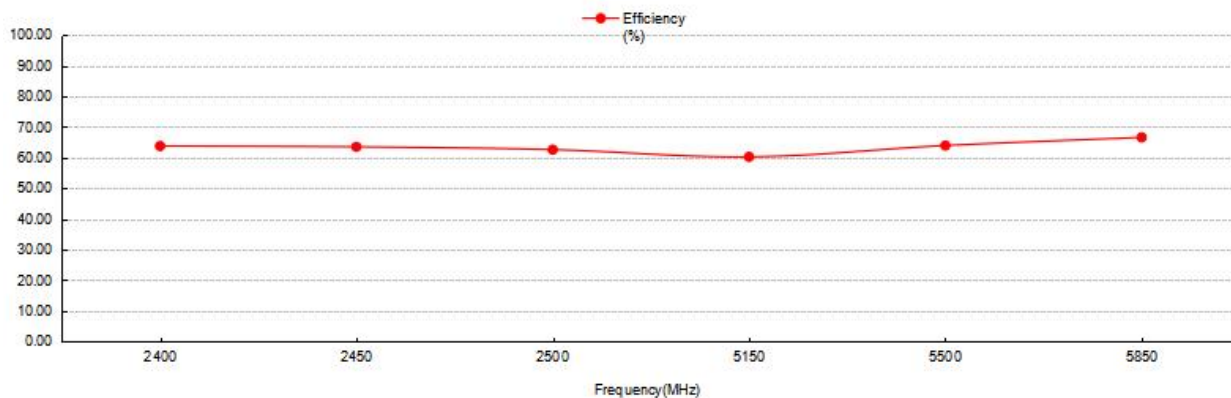
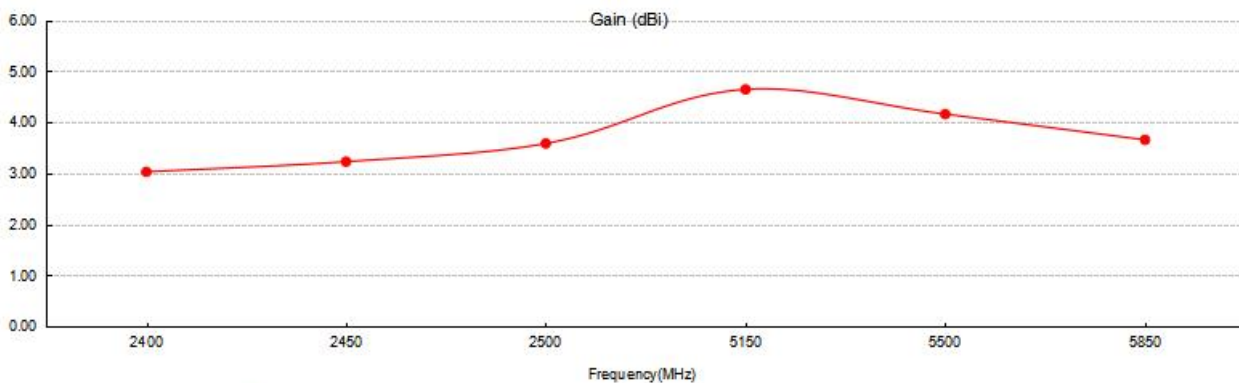


### 3. S Parameter

| Frequency (MHz) | VSWR | Return Loss (dB) |
|-----------------|------|------------------|
| 2400            | 1.44 | -14.78           |
| 2450            | 1.58 | -12.98           |
| 2500            | 1.92 | -10.05           |
| 5150            | 1.66 | -11.97           |
| 5500            | 1.54 | -13.37           |
| 5850            | 1.36 | -15.97           |



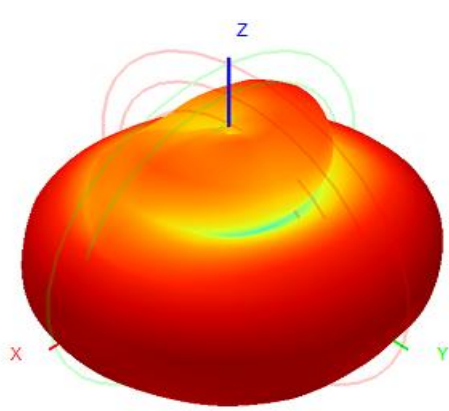
#### 4. Efficiency and Gain



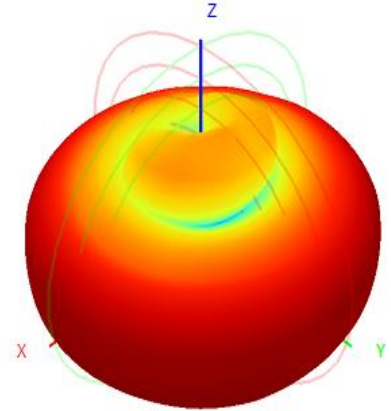
| Frequency (MHz) | 2400  | 2450  | 2500  | 5150  | 5500  | 5850  |
|-----------------|-------|-------|-------|-------|-------|-------|
| Efficiency (%)  | 63.78 | 63.52 | 62.60 | 60.25 | 63.94 | 66.61 |
| Gain (dBi)      | 3.03  | 3.23  | 3.59  | 4.65  | 4.16  | 3.66  |

## 5. Radiation Pattern

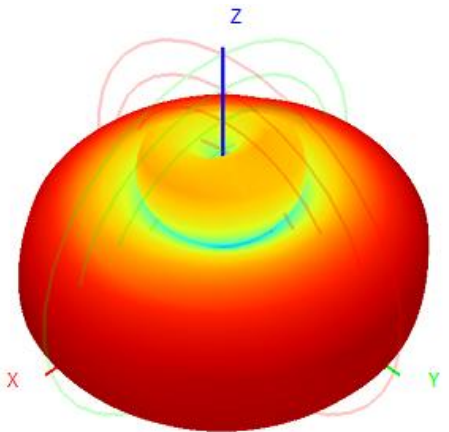
5-1 Antenna 3D Radiation Pattern



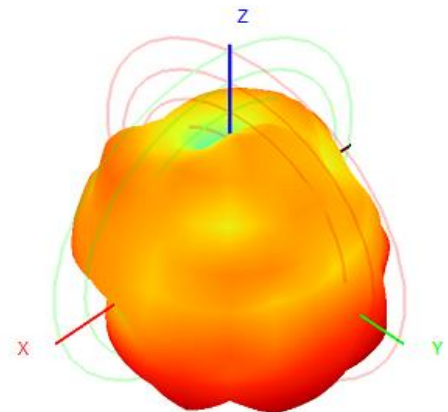
2400MHz



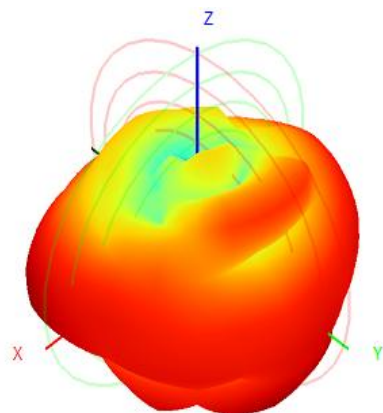
2450MHz



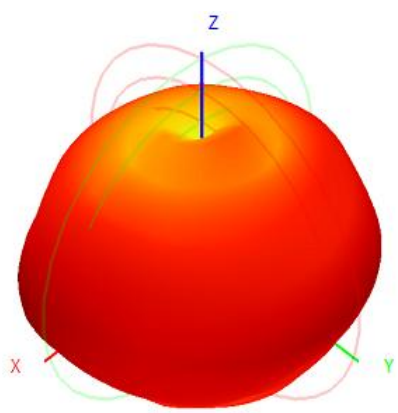
2500MHz



5150MHz



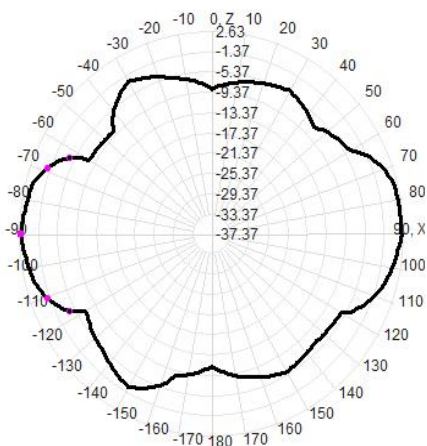
5500MHz



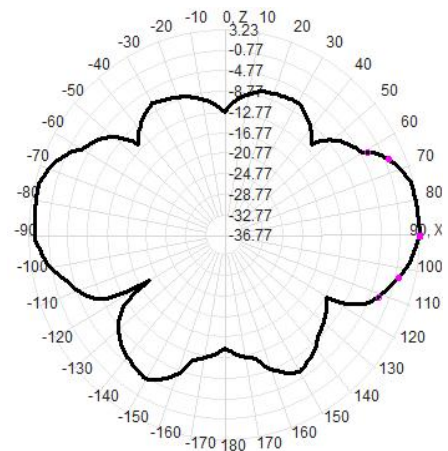
5850MHz



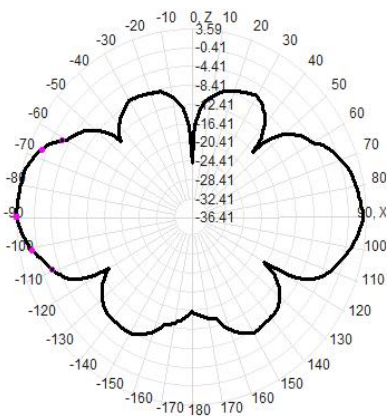
## 5-2 Antenna 2D Radiation Pattern



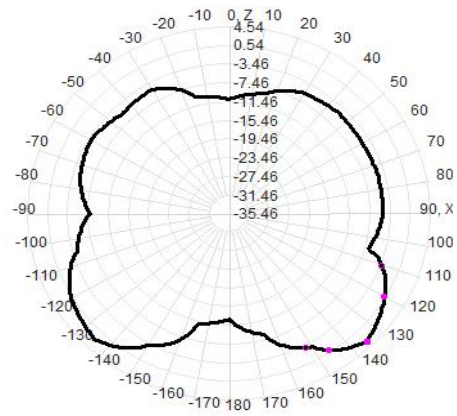
2400MHZ



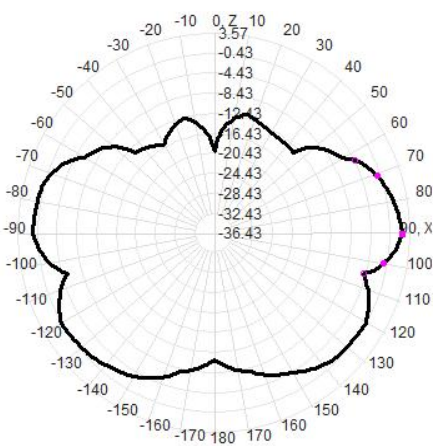
2450MHZ



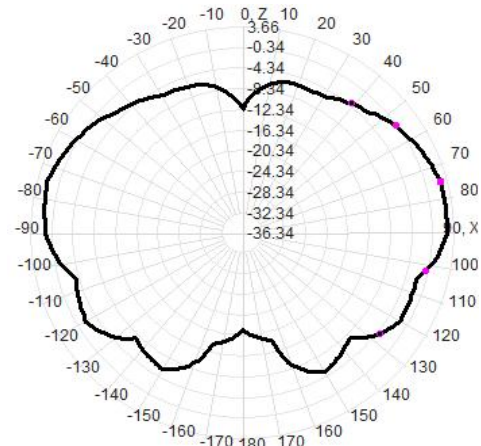
2500MHZ



5150MHZ



5500MHZ



5850MHZ



## 6. Mechanical Specification

| ROHS<br>COMPLIANT  |  |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|--------------------|--|-----------------------------|-------------|-------------|------|---------|---------|--------------|--------|-----------|-----|---|------|-----------------------------|---|--|----|------|----|---|--|-----|------|------|---|--|--------|-------|------------------------|---|--|--------|------|-----------|-----|--------|-------|-------|----------|---|--|
|                    | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">REV.</th> <th style="width: 40%;">DESCRIPTION</th> <th style="width: 10%;">ECN NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 10%;">DRAFTER</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td>First Sample</td> <td style="text-align: center;">/</td> <td style="text-align: center;">2024-8-21</td> <td style="text-align: center;">刘中林</td> </tr> </tbody> </table>   | REV.                        | DESCRIPTION | ECN NO.     | DATE | DRAFTER | A       | First Sample | /      | 2024-8-21 | 刘中林 |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| REV.               | DESCRIPTION  | ECN NO.                     | DATE        | DRAFTER     |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| A                  | First Sample   | /                           | 2024-8-21   | 刘中林         |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|                    | <p style="text-align: center;">DETAIL A<br/>SCALE: 4/1</p>   |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|                    | <p style="text-align: center;">Specification:</p> <p style="text-align: center;">Frequency Rang: 2400-2500/5150-5850MHz</p> <p style="text-align: center;">Return Loss: -9dB Max</p> <p style="text-align: center;">VSWR: 1.92:1 Max</p>   |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|                    | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">ITEM</th> <th style="width: 20%;">PART NAME</th> <th style="width: 30%;">DESCRIPTION</th> <th style="width: 5%;">QTY</th> <th style="width: 40%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">7</td> <td>铆钉</td> <td>POM,黑色</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td style="text-align: center;">6</td> <td>泡棉</td> <td>EVA,黑色</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">5</td> <td>弹簧</td> <td>黄铜</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">4</td> <td>PCB</td> <td>FR-4</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">3</td> <td>杆套</td> <td>ABS,黑色</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td>下固定座</td> <td>PC+PBT,黑色</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">1</td> <td>线材</td> <td>L13线材,黑色</td> <td style="text-align: center;">1</td> <td></td> </tr> </tbody> </table> | ITEM                        | PART NAME   | DESCRIPTION | QTY  |         | 7       | 铆钉           | POM,黑色 | 2         |     | 6 | 泡棉   | EVA,黑色                      | 1 |  | 5  | 弹簧   | 黄铜 | 1 |  | 4   | PCB  | FR-4 | 1 |  | 3      | 杆套    | ABS,黑色                 | 1 |  | 2      | 下固定座 | PC+PBT,黑色 | 1   |        | 1     | 线材    | L13线材,黑色 | 1 |  |
| ITEM               | PART NAME  | DESCRIPTION                 | QTY         |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 7                  | 铆钉   | POM,黑色                      | 2           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 6                  | 泡棉   | EVA,黑色                      | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 5                  | 弹簧   | 黄铜                          | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 4                  | PCB  | FR-4                        | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 3                  | 杆套   | ABS,黑色                      | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 2                  | 下固定座   | PC+PBT,黑色                   | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| 1                  | 线材   | L13线材,黑色                    | 1           |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|                    | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">GENERAL TOLERANCE:</td> <td style="width: 40%;">CIST. P/N:</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">LINEAR:</td> <td>±0.25</td> <td>TITLE:</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">X</td> <td>±0.3</td> <td>2.4/3.86 W126黑色天线+铜线 L=15mm</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">XX</td> <td>±0.5</td> <td></td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">XXX</td> <td>±2.0</td> <td></td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">ANGLE:</td> <td>±0.5°</td> <td>P/N.: URB02C15B5D5464A</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">APPR.:</td> <td>朱月飞</td> <td>CHECK.:</td> <td>黄锡林</td> <td>DRAW.:</td> </tr> <tr> <td style="text-align: center;">SCALE</td> <td>1 : 1</td> <td colspan="3"></td> </tr> </table>   | GENERAL TOLERANCE:          | CIST. P/N:  |             |      |         | LINEAR: | ±0.25        | TITLE: |           |     | X | ±0.3 | 2.4/3.86 W126黑色天线+铜线 L=15mm |   |  | XX | ±0.5 |    |   |  | XXX | ±2.0 |      |   |  | ANGLE: | ±0.5° | P/N.: URB02C15B5D5464A |   |  | APPR.: | 朱月飞  | CHECK.:   | 黄锡林 | DRAW.: | SCALE | 1 : 1 |          |   |  |
| GENERAL TOLERANCE: | CIST. P/N:   |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| LINEAR:            | ±0.25  | TITLE:                      |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| X                  | ±0.3   | 2.4/3.86 W126黑色天线+铜线 L=15mm |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| XX                 | ±0.5   |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| XXX                | ±2.0   |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| ANGLE:             | ±0.5°  | P/N.: URB02C15B5D5464A      |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| APPR.:             | 朱月飞  | CHECK.:                     | 黄锡林         | DRAW.:      |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
| SCALE              | 1 : 1  |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |
|                    | <p style="text-align: center;">UANT® 东莞市优比电子有限公司</p> <p style="text-align: center;">好天线 · 优比造 Dongguan Youbi Electronics Co., Ltd</p>  |                             |             |             |      |         |         |              |        |           |     |   |      |                             |   |  |    |      |    |   |  |     |      |      |   |  |        |       |                        |   |  |        |      |           |     |        |       |       |          |   |  |