

## SPECIFICATION FOR APPROVAL

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|                    |                  |
|--------------------|------------------|
| CUSTOMER:          | 凯利华              |
| CUSTOMER MODEL NO: | EN7561           |
| XUNDA PRODUCT P/N: | XD2C-A100W5D-41B |
| PRODUCT TYPE:      | 2.4GHz           |
| REVISION           | V0.1             |
| DATE               | 2024-03-08       |

| XUNDA TECHNOLOGY |            |             | CUSTOMER APPROVED |            |             |
|------------------|------------|-------------|-------------------|------------|-------------|
| PREPARED BY      | CHECKED BY | APPROVED BY | PREPARED BY       | CHECKED BY | APPROVED BY |
| Huanghuixin      | Zhangxun   | Duanwei     |                   |            |             |

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## Version Information

| Date       | Revision | Comment          | Author      |
|------------|----------|------------------|-------------|
| 2024-03-08 | 0.1      | Initial released | Huanghuixin |
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## Directory

|                                   |            |
|-----------------------------------|------------|
| 1. Product Summary.....           | Page 4     |
| 2. Features Specification.....    | Page 4     |
| 3. Overall performance.....       | Page 5     |
| 4. Product Characteristics.....   | Page 6-8   |
| 5. Product Drawing.....           | Page 9     |
| 6. Optional Cable Data Sheet..... | Page 10-11 |

## 1. Product Summary

1.1. XD2C-A100W5D-41B is a 2.4GHz antenna designed with patented technology. It can be easily integrated into the machine. It has high efficiency and good performance, and easy to assemble for mass production.

1.2. XD2C-A100W5D-41B is an ideal solution for wireless network equipment, such as access points, routers, and gateways.

1.3. XD2C-A100W5D-41B are RoHS compliant.

## 2. Features Specification

2.1. IEEE 802.11 b/g/n standards

2.2. High efficiency

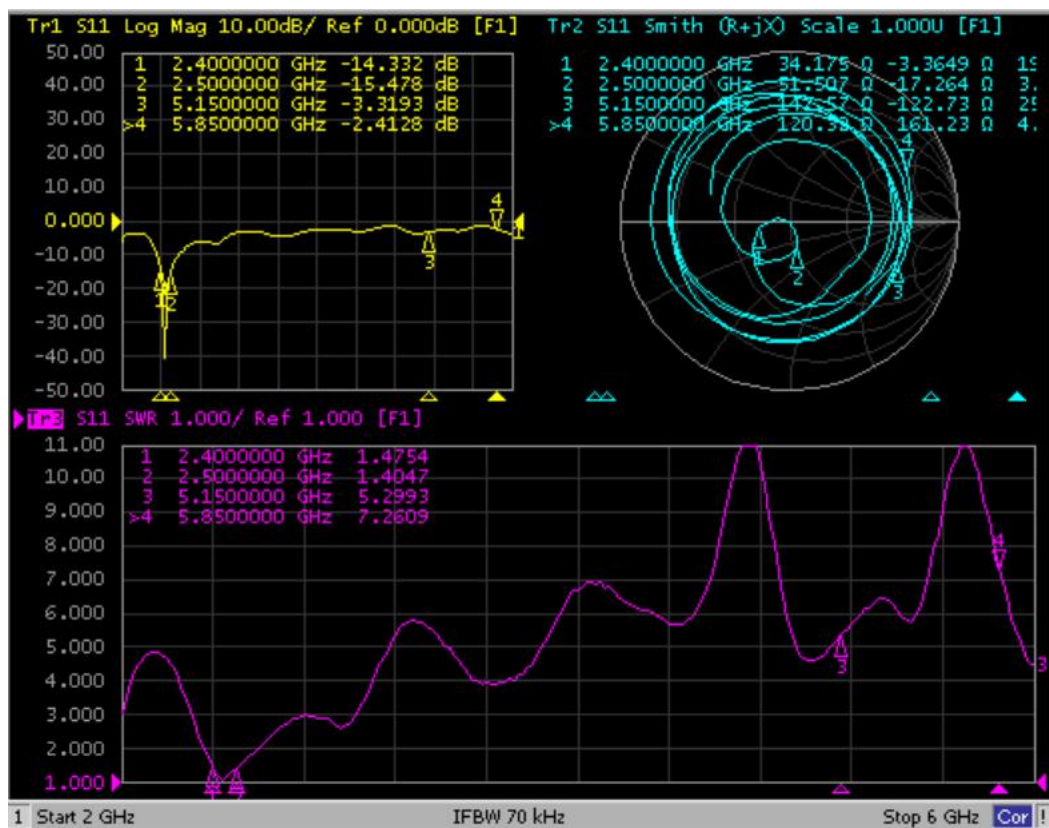
2.3. Quick integration

### 3. Overall performance

| Items                       | Specification    |
|-----------------------------|------------------|
| Frequency Range             | 2.4~2.5GHz       |
| Feed Impedance              | 50±10 Ω          |
| Gain                        | 5±1 dBi          |
| VSWR                        | ≤2.0             |
| Admitted Power              | 10W              |
| Polarization                | Linear, Vertical |
| Connector Type              | RF Cable         |
| Antenna Base                | PCB+Spiral pole  |
| Operating Temp              | -20°C~+65°C      |
| Operating Relative Humidity | 5%RH ~ 95%RH     |
| Storage Temp                | -30°C~+75°C      |
| Storage Relative Humidity   | 5%RH ~ 95%RH     |

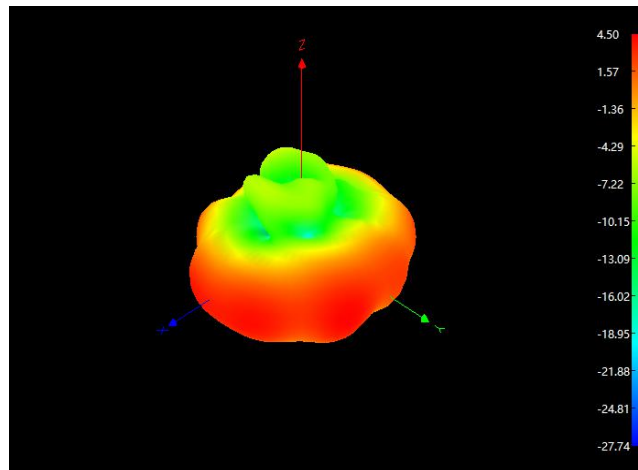
## 4. Product Characteristics

### 4.1. Return Loss

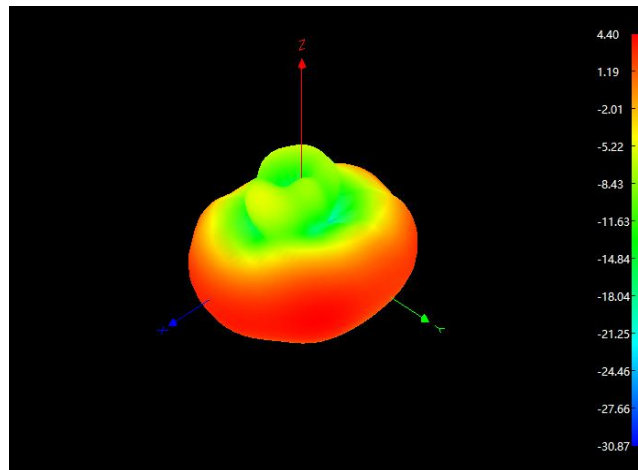


### 4.2. Radiation Pattern 3D&2D Radiation Pattern

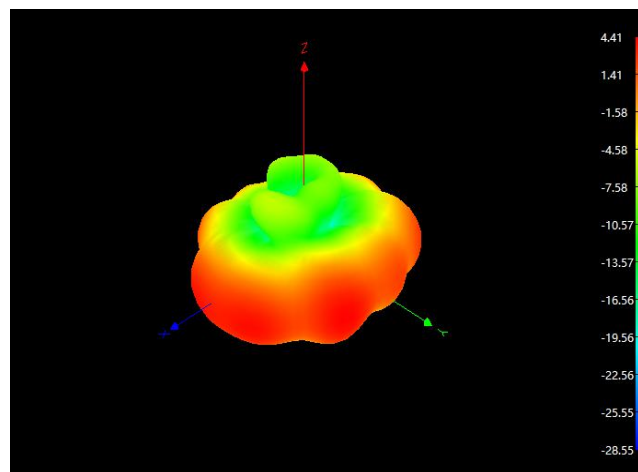
| 频点         | 增益   | 效率     |
|------------|------|--------|
| 低(2.4GHz)  | 4.50 | 70.79% |
| 中(2.45GHz) | 4.40 | 72.28% |
| 高(2.5GHz)  | 4.41 | 69.66% |



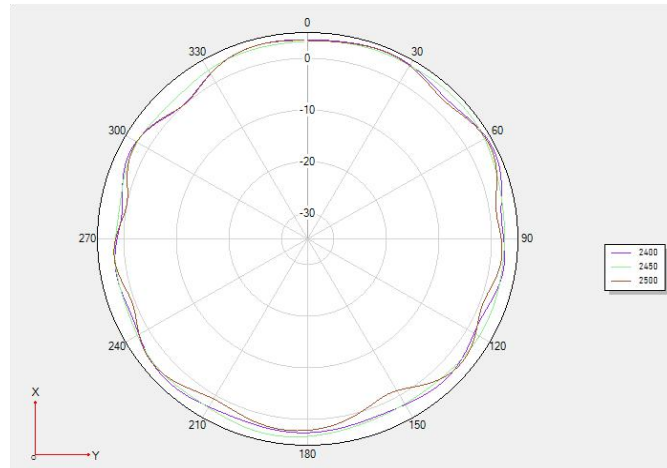
(2.4GHz WIFI) 低频点 3D 图及最大增益



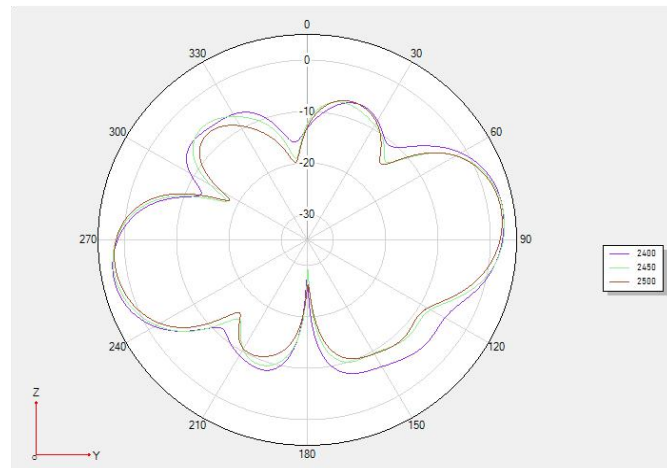
(2.45GHz WIFI) 中频点 3D 图及最大增益



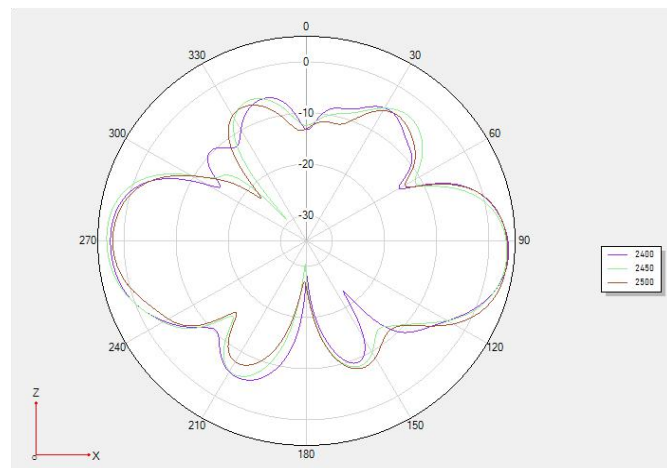
(2.5GHz WIFI)高频点 3D 图及最大增益



2400MHz\2450MHz\2500MHz XOY(H Face) Gain Icon



2400MHz\2450MHz\2500MHz XOZ(E1 Face) Gain Icon

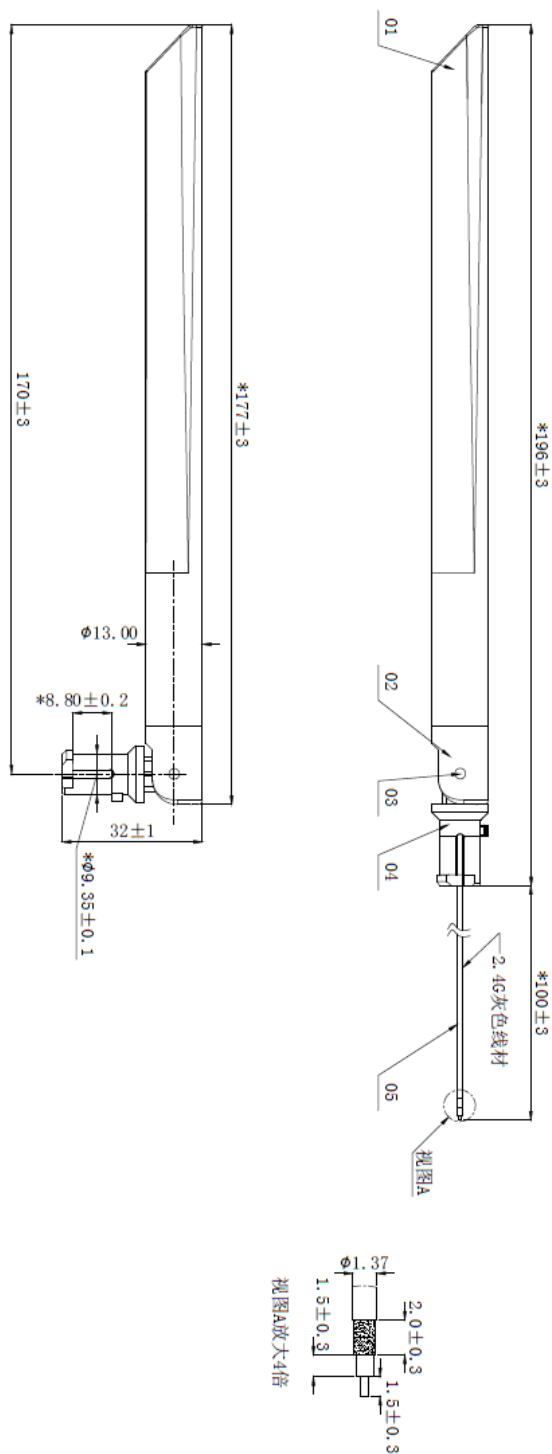


2400MHz\2450MHz\2500MHz YOZ(E2 Face) Gain Icon

## 5. Product Drawing

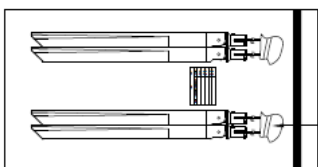
保存目录

| 版本 | 变更内容 | 改前 | 改后 | 更改人 | 日期       |
|----|------|----|----|-----|----------|
| A  | 初版发行 |    |    |     | 2024-3-8 |
|    |      |    |    |     |          |
|    |      |    |    |     |          |
|    |      |    |    |     |          |

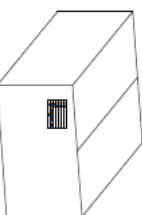


Frequency Range: 2400~2500MHz

珍珠棉+橡皮筋



1. 包裝數量: 50PCS/PE Bag.
2. 須貼上1pcs標籤至PE袋中間位置.



1. 外箱須貼上1psc/ROHS環保標籤至外箱標籤上;
  2. 外箱須貼上1psc外箱標籤至外箱左上角。
- (注: 如果標籤客戶有要求則按客戶要求貼, 否則按迅达標籤貼)。

|                                       |       |                               |    |            |
|---------------------------------------|-------|-------------------------------|----|------------|
| 05                                    | 线材    | Ø1.37, Dark Gray, 米蘭2.1-5.1-5 | 1  | PC-PBT: 白色 |
| 04                                    | 下圈    |                               | 1  | POM: 白色    |
| 03                                    | 铆钉    |                               | 2  | PC: 白色     |
| 02                                    | 上圈    |                               | 1  | TPE: 白色    |
| 01                                    | 杆套    |                               | 1  |            |
| 序号                                    | 零件名称  | 规格 (单位: mm)                   | 用量 | 材料         |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |       | 客户                            | 备注 |            |
| PART NO.                              |       | CUSTOMER                      |    |            |
| 零件名称                                  |       | 零件号                           |    |            |
| PART NAME                             |       | 物料号                           |    |            |
| PRODUCT NO.                           |       | 物料名称                          |    |            |
| ENVS61                                |       | 版本                            |    |            |
| 物料/日期                                 |       | 版本                            |    |            |
| DRAWING DATE                          |       | 比例                            |    |            |
| 2024-3-8                              |       | SCALE                         |    |            |
| 1:1                                   |       |                               |    |            |
| 视图                                    | 投影    | 迅达                            |    |            |
| 单位                                    | 比例    |                               |    |            |
| 1:1                                   | 投影/日期 |                               |    |            |
| 1:1                                   | 段伟    |                               |    |            |
| 2024-3-8                              |       |                               |    |            |

## 6. Optional Cable Data Sheet

|                                  |                                            |                                                                                    |              |                          |
|----------------------------------|--------------------------------------------|------------------------------------------------------------------------------------|--------------|--------------------------|
| RG、细微射频同轴电缆                      |                                            | RF-1.37/50 Ω                                                                       |              |                          |
| 结构图 Structure drawing            |                                            |  |              |                          |
| 结构特性 Structure characteristics   |                                            |                                                                                    |              |                          |
| 结构 Structure                     | 项目 Item                                    | 标准值 Standard value                                                                 |              |                          |
| ①内导体 Inner conductor             | 材料 Material                                | 镀锡铜线 Tinned copper wire                                                            |              |                          |
|                                  | (绞合)标称外径 (mm)<br>(Intertwist)NO M.O.D.(mm) | 0.306±0.02                                                                         |              |                          |
| ②绝缘层 Insulation                  | 材料 Material                                | 聚全氟乙丙烯 FEP /聚乙烯 PE                                                                 |              |                          |
|                                  | 标称外径(mm)<br>NOM.O.D.(mm)                   | 0.9±0.03                                                                           |              |                          |
| ③外导体 Outer conductor             | 材料 Material                                | 镀锡铜线 Tinned copper wire                                                            |              |                          |
|                                  | 标称外径(mm)<br>NOM.O.D.(mm)                   | 1.13±0.05                                                                          |              |                          |
|                                  | 覆盖率(%)<br>Coverage ratio(%)                | 90±5                                                                               |              |                          |
| ④护套层 Jacket                      | 材料 Material                                | 聚全氟乙丙烯 FEP /聚乙烯 PE                                                                 |              |                          |
|                                  | 颜色 Color                                   | 灰 Gray                                                                             |              |                          |
|                                  | 标称外径(mm)<br>NOM.O.D.(mm)                   | 1.37±0.05                                                                          |              |                          |
| 电性能特性 Electrical characteristics |                                            |                                                                                    |              |                          |
| 项目 Item                          | 标准值 Standard value                         | 项目 Item                                                                            | 频率 Frequency | 标准值 Standard value<br>单位 |

|                                  |                                                      |                   |      |      |
|----------------------------------|------------------------------------------------------|-------------------|------|------|
| 电容 (pF/m)<br>Capacitance( p F/m) | 96                                                   | 衰减<br>Attenuation | 1GHz | ≤1.7 |
| 速率 (%)<br>Velocity (%)           | 70                                                   |                   | 2GHz | ≤2.5 |
| 阻抗 (Ω)<br>Impedance (Ω)          | 50±2                                                 |                   | 3GHz | ≤3   |
| 驻波比<br>Standing wave ratio       | ≤1.3@0~6GHz                                          |                   | 4GHz | ≤3.5 |
| 最大工作电压 (V)                       | 1000                                                 |                   | 5GHz | ≤4   |
| 最大工作频率 (GHz)                     | 6                                                    |                   | 6GHz | ≤4.5 |
| 可靠性 Dependability                |                                                      |                   |      |      |
| 项目 Item                          | 单位 Unit                                              | 标准值 Standardvalue |      |      |
| 最小弯曲半径(一次)<br>Min.bending radius | mm                                                   | 4                 |      |      |
| 最小弯曲半径(重复)<br>Min.bending radius | mm                                                   | —                 |      |      |
| 工作温度范围<br>Operating temperature  | ℃                                                    | FEP/PE -55~+200   |      |      |
| 使用提示 Use tips                    |                                                      |                   |      |      |
| 存储环境<br>Storage environment      | 温度：30℃以下；湿度：20%~65%                                  |                   |      |      |
| 最佳保存周期<br>The best save cycle    | 2 个月；2 个月以上作业性下降，如上锡效果变差,但电性能不受影响。夏季高温高湿环境开剥后需尽快流转   |                   |      |      |
| 加工温度<br>Processing temperature   | 260℃的极限情况下，可短时间承受；300℃以上分子通常带有的等端基会分解；400℃以上发生显著的热分解 |                   |      |      |
| 铁氟龙收缩<br>Teflon Shrink           | 固有材料特性。绝缘：0.2mm 以下；护套：0.3mm 以下                       |                   |      |      |
| 护套窜动<br>Jacket traverse          | 加工长度（护套残留长度）低于 5cm 易发生                               |                   |      |      |