

## SPECIFICATION FOR APPROVAL

Huizhou Jinxin Tongfang Technology Co., LTD

地址：惠州市惠澳大道惠南高新技术产业园广泰路7号

ADD: No. 7, Guangtai Road, Huinan High -tech Zone, Huizhou City, China

|                    |                  |
|--------------------|------------------|
| CUSTOMER:          | 凯利华              |
| CUSTOMER MODEL NO: | EN7561           |
| XUNDA PRODUCT P/N: | XD2C-B105W5D-43C |
| PRODUCT TYPE:      | 5.8GHz           |
| REVISION           | V0.1             |
| DATE               | 2024-02-26       |

| 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      |
|------------|----------|------------------|-------------|
| 2024-02-26 | 0.1      | Initial released | Huanghuixin |
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## 1. Product Summary

1.1. XD2C-B105W5D-43C is a 5GHz 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-B105W5D-43C is an ideal solution for wireless network equipment, such as access points, routers, and gateways.

1.3. XD2C-B105W5D-43C are RoHS compliant.

## 2. Features Specification

2.1. IEEE 802.11 b/g/n standards

2.2. High efficiency

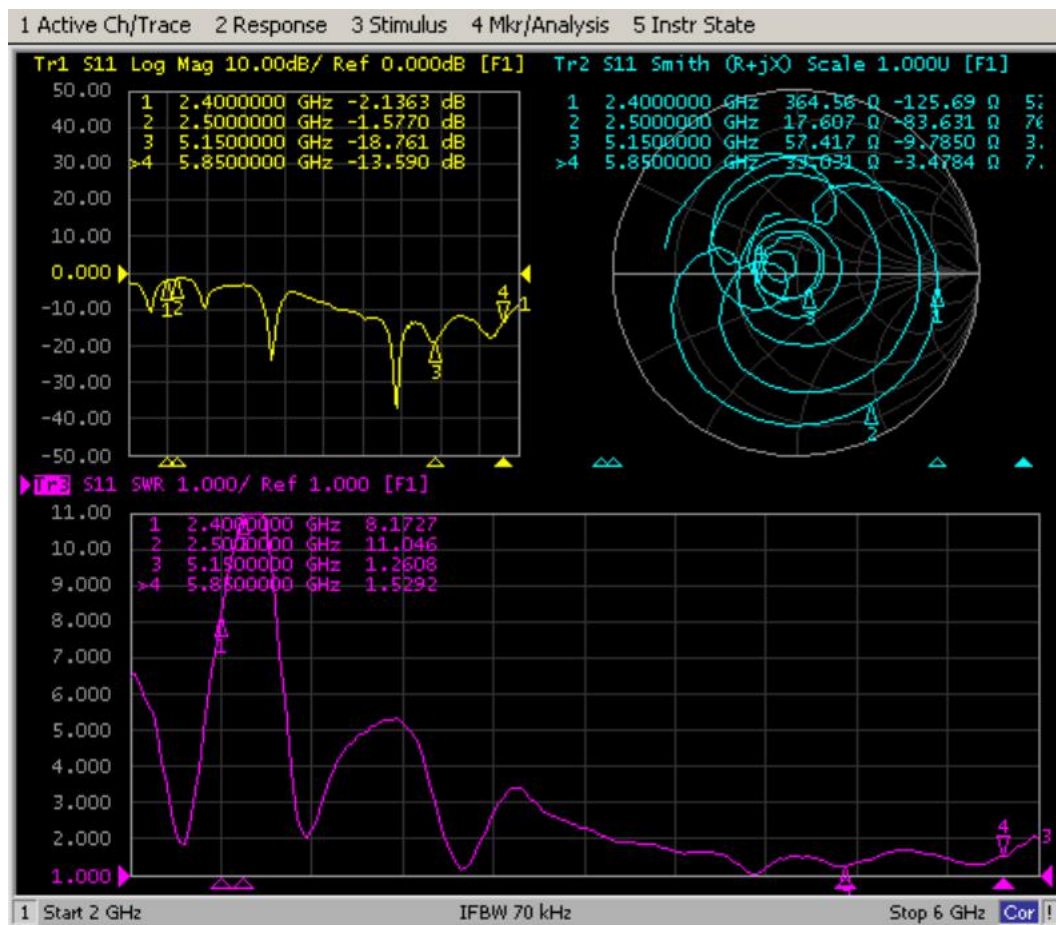
2.3. Quick integration

### 3. Overall performance

| Items                       | Specification    |
|-----------------------------|------------------|
| Frequency Range             | 5.15~5.85GHz     |
| 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

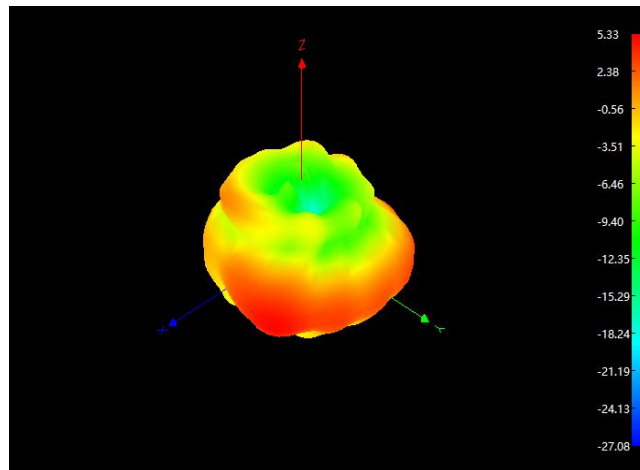
### 4.1. Return Loss



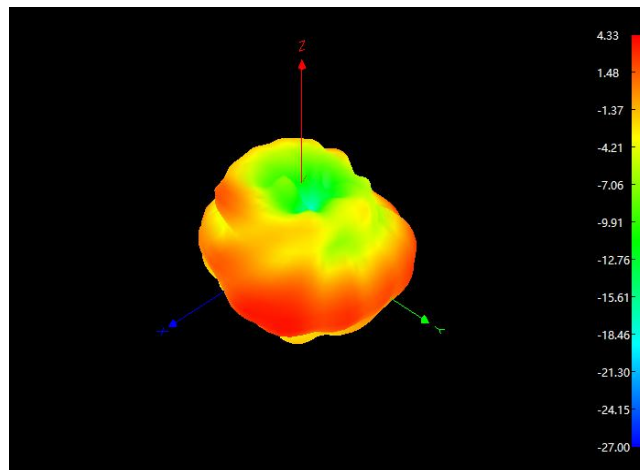
### 4.2. Radiation Pattern

#### 3D&2D Radiation Pattern

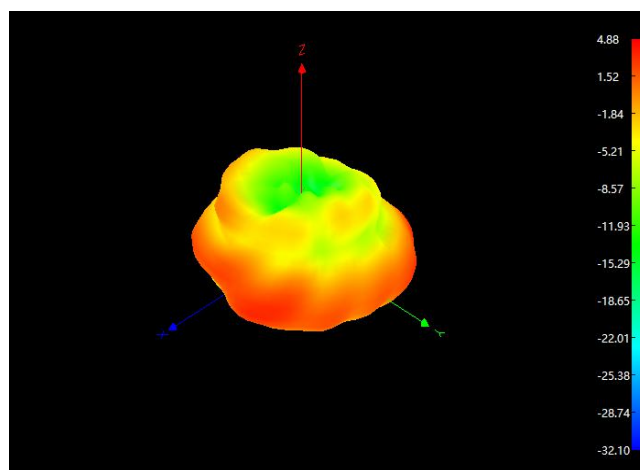
| 频点       | 增益   | 效率     |
|----------|------|--------|
| 5.15 GHz | 5.33 | 70.47% |
| 5.35 GHz | 4.33 | 66.69% |
| 5.75 GHz | 4.88 | 68.23% |
| 5.85 GHz | 4.76 | 63.39% |



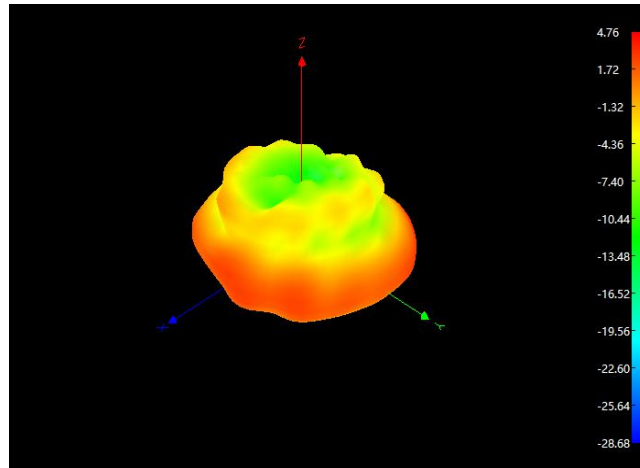
(5.15GHz WIFI) 3D 图及最大增



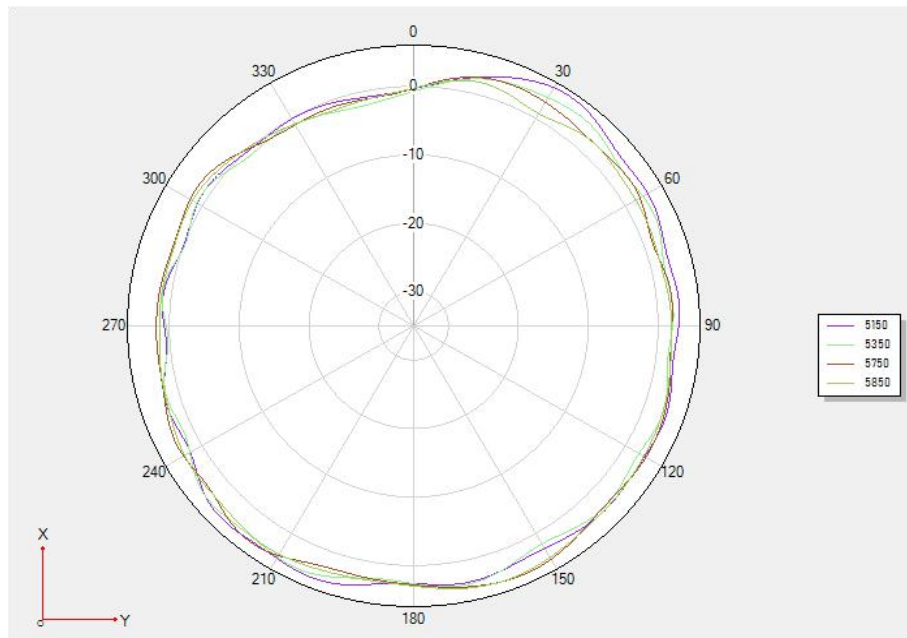
(5.35GHz WIFI) 3D 图及最大增益



(5.75GHz WIFI) 3D 图及最大增益

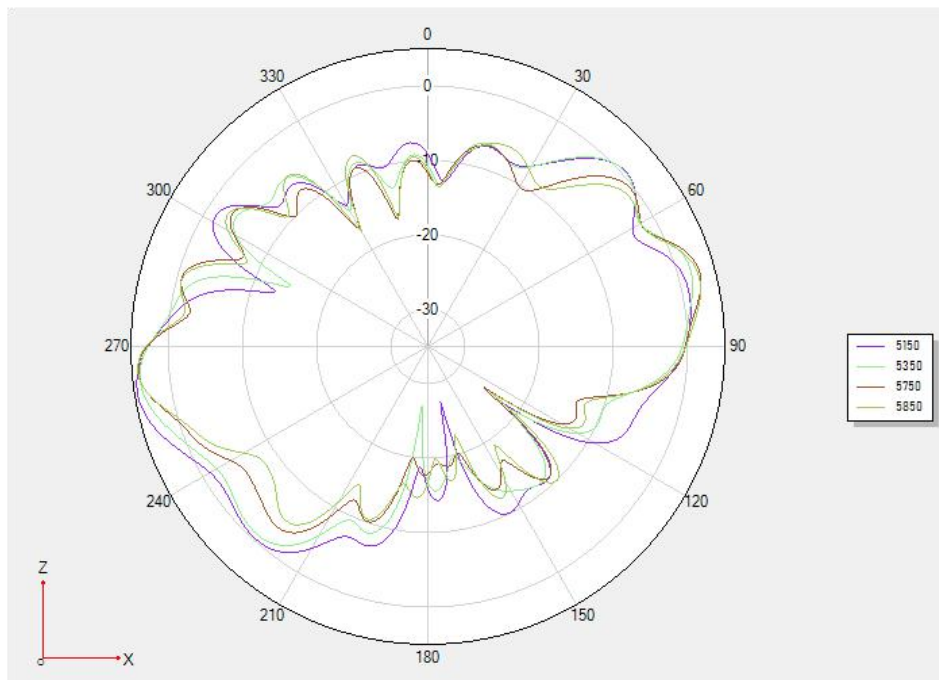


(5.85GHz WIFI) 3D 图及最大增益

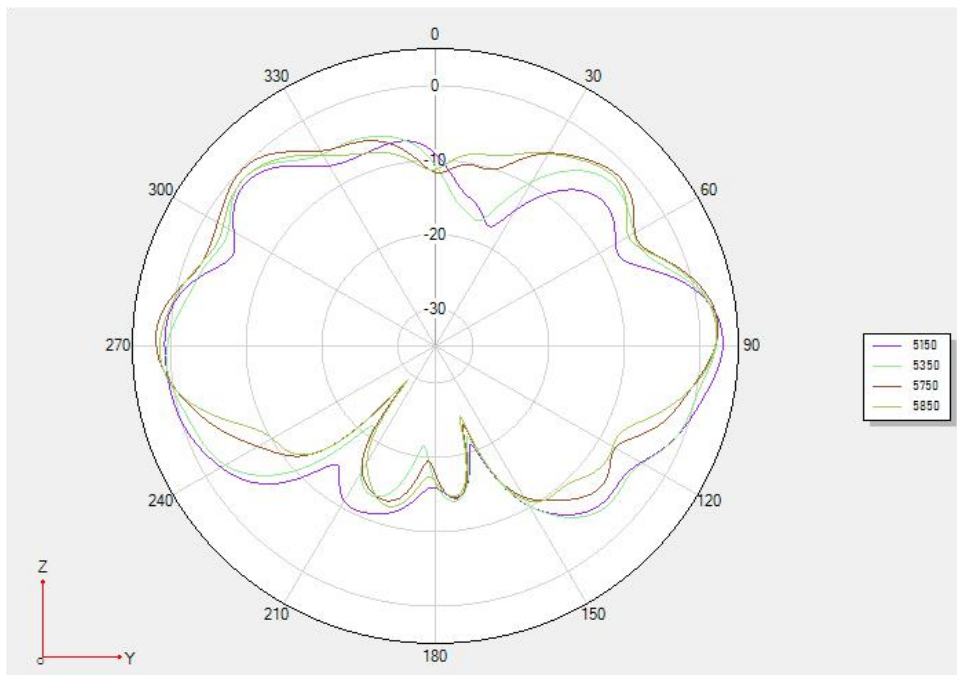


5150MHz\5350MHz\5750MHz\5850MHz XOY(H Face) Gain Icon





5150MHz\5350MHz\5750MHz\5850MHz XOZ(E1 Face) Gain Icon

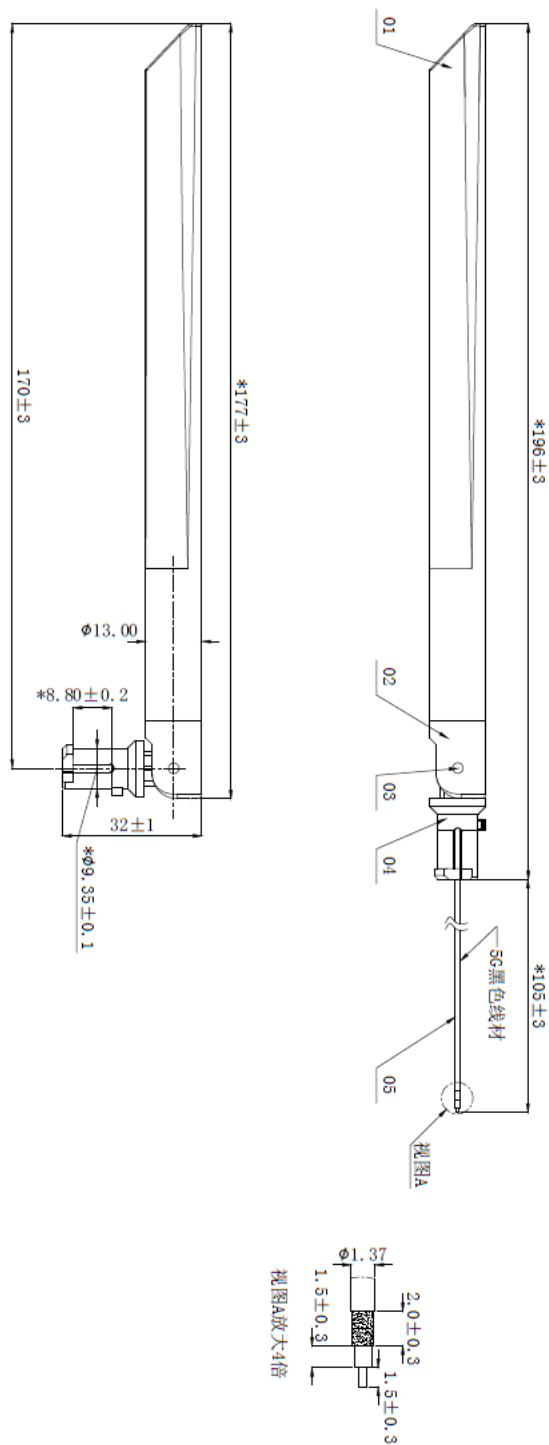


5150MHz\5350MHz\5750MHz\5850MHz YOZ(E2 Face) Gain Icon

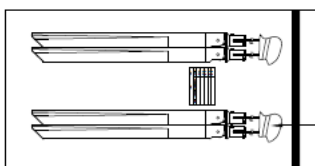
## 5. Product Drawing

保存目录

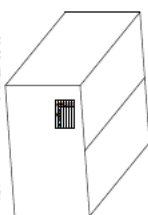
| 版本 | 变更内容 | 改前 | 改后 | 更改人 | 日期        |
|----|------|----|----|-----|-----------|
| A  | 初版发行 |    |    |     | 2024-2-26 |
|    |      |    |    |     |           |
|    |      |    |    |     |           |
|    |      |    |    |     |           |



Frequency Range: 5150~5850MHz



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1pcs/ROHS不保標籤至外箱標籤上;
  2. 外箱須貼上1pcs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, Black, 末端2-1.5-1.5                                                                 | 1                             |                    |
| 04                                    | 下圈                                                                                                         |                                                                                           | 1                             | PC-FBT: 白色         |
| 03                                    | 铆钉                                                                                                         |                                                                                           | 2                             | POM: 白色            |
| 02                                    | 上圈                                                                                                         |                                                                                           | 1                             | PC: 白色             |
| 01                                    | 杆套                                                                                                         |                                                                                           | 1                             | TPE: 白色            |
| 序号                                    | 零件名称                                                                                                       | 规格 (单位: mm)                                                                               | 用量                            | 材料                 |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |                                                                                                            | 物料代码<br>PART NO.                                                                          | 客户<br>CUSTOMER                |                    |
|                                       | $\times$ $\pm 0.20$<br>$\times \times$ $\pm 0.10$<br>$\times \times \times$ $\pm 0.05$<br>UNLESS $\pm 0.5$ | 零件名称<br>PART NAME                                                                         | 图<br>纸<br>编<br>号<br>REV. DATE | 模具料号<br>MOLD NO.   |
| 视图<br>PROJECTION                      |                         | 产品图<br>PRODUCT ILL.                                                                       | 版本<br>EDITION                 | 材 料<br>MATERIAL    |
| 单位<br>UNIT                            |                         | 制图/日期<br>DRAWING DATE                                                                     | 比 例<br>SCALE                  | 收 编 基<br>SER. NAME |
|                                       | 复核/日期<br>CHECK DATE                                                                                        | 钟春明                                                                                       | 2024-2-26                     |                    |
|                                       | 审核/日期<br>APPROVED DATE                                                                                     | 段伟                                                                                        | 2024-2-26                     |                    |
|                                       |                                                                                                            | <br>迅发 |                               |                    |
|                                       |                                                                                                            | 备注                                                                                        |                               |                    |

## 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<br>Structure                  | 项目 Item                                    | 标准值 Standard value                                                                 |              |                             |
| ①内导体<br>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<br>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<br>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<br>Jacket                   | 材料 Material                                | 聚全氟乙丙烯 FEP / 聚乙烯 PE                                                                |              |                             |
|                                  | 颜色 Color                                   | 黑 Black                                                                            |              |                             |
|                                  | 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<br>Standard value                      | 项目 Item                                                                            | 频率 Frequency | 标准值<br>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                               |                   |      |      |