

深圳市联合极光科技有限公司  
样品承认书  
SPECIFICATION FOR APPROVAL

●物料名称

Material name: WIFI0 天线/ WIFI1 天线/BT 天线

●供应商

Supplier: 深圳星河电波科技有限公司 Shenzhen yGalax Technologies Limited

●物料描述

Material description : FPC 天线 FPC Antenna

●物料料号

Material item number: 115.1.01.3713.000068/115.1.01.3713.000069/115.1.01.3713.000070

●物料丝印

Material silkscreen printing: YX-N1-WIFI0-V3.0 / YX-N1-WIFI1-V2.0/YX-N1-BT-V3.0

|                             |          |                             |          |
|-----------------------------|----------|-----------------------------|----------|
| 供方确认 Supplier confirmation: |          | 客户确认 Customer confirmation: |          |
| 测试 Test:                    | 研发 RF:   | 测试 Test:                    | 研发 RF:   |
|                             |          | 采购 purchase:                |          |
| 品质 quality:                 | 审核check: | 品质 quality                  | 审核check: |

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| REVISION | ECO# | REVISION NOTE | AUTHOR | DATE      |
|----------|------|---------------|--------|-----------|
| A0       |      | New release   |        | 10/01.25' |
|          |      |               |        |           |
|          |      |               |        |           |

一对半0.12MM厚度(不带离型纸)  
一对半0.12MM+离型纸0.11MM=0.23MM厚度(带离型纸)  
ONE AND A HALF 0.12MM THICKNESS (NO DEAPPER)  
A pair of half 0.12MM + de-typed paper 0.11MM = 0.23MM thickness (with de-typed paper)

丝印字符白色亮光油墨, 字高1.5mm

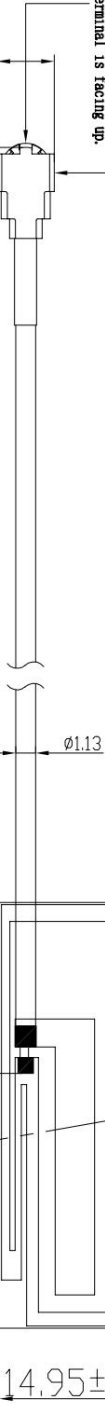
一代端子  
One generation terminal

油墨面端子朝下  
The ink surface terminal is facing up.

长度 length 250MM±1MM(黑色Black)

离型纸断开线

YX-N1-WIFI0-V3.0



端子宽3.01MM

端子高2.04

离型纸面端子朝上  
The terminal of the moulded paper surface is facing down.

40.5±0.2

245MM±1MM

Describe:

1.Content "XXXX" indicates production date (year and week, e.g. 2101)

Note:

1. MATERIAL :18/12.5 electrolytic copper, PI base MATERIAL. The green line shows the outline of the copper layer, and the purple line shows the shape.

2. Tolerance requirements are not noted .A. copper foil to copper foil +/-0.05 B. Copper foil to shape +/-0.15(special requirements)

A. Tolerance from hole to shape +/-0.15(+/-0.10 if special requirements)

3. Nickel plating: Ni: 2-7um Au: not less than 0.025um (salt spray must be over 48H), ink:

4. This FPC adhesive is 3M 9471LSE, the adhesive should be super strong!

5. Size requirements:

5.1. ST size: The minimum measurement quantity is any 35 product sizes selected from 500 for CPK analysis;

5.2. \* size is the key control size;

6. Any material modification must be approved in writing by the yGalax Engineering Department and passed all tests by the yGalax Quality Department;

7. Products must meet ROHS/REACH standards;

|           |                 |     |     |           |      |        |
|-----------|-----------------|-----|-----|-----------|------|--------|
| TEM       | BT天线FPC(黑色)     | XXX | XXX | 电解铜, PI基材 | 1    |        |
| PART NAME | CLIENTELE UNMBE | P/N |     | MATERIAL  | O'TY | REMARK |

|                         |         |             |
|-------------------------|---------|-------------|
| GENERAL TOLERANCE TABLE | UNIT    | PART NUMBER |
| LINEAR                  | ANGULAR | YX0631-N1   |

| DIVISION | TOLERANCE | DIVISION | TOLERANCE | UNIT     | PART NUMBER      |
|----------|-----------|----------|-----------|----------|------------------|
| 0-10     | ±0.05     | 0-5°     | ±0.5°     | mm       | CLIENTELE NUMBER |
| 10-50    | ±0.10     | 5-20°    | ±1°       | SEE NOTE |                  |
| 50-80    | ±0.15     | 20-90°   | ±1.5°     | FINISH   | APPD             |
| >80      | ±0.2      |          |           | SIZE     | RF CHKD          |

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A4 NUMBER

R DR

XXXXXX

TITLE:

YX0631 (WIFI0天线FPC)

深圳星河电波科技有限公司  
ShenZhen yGalax.com

SCALE

FULL

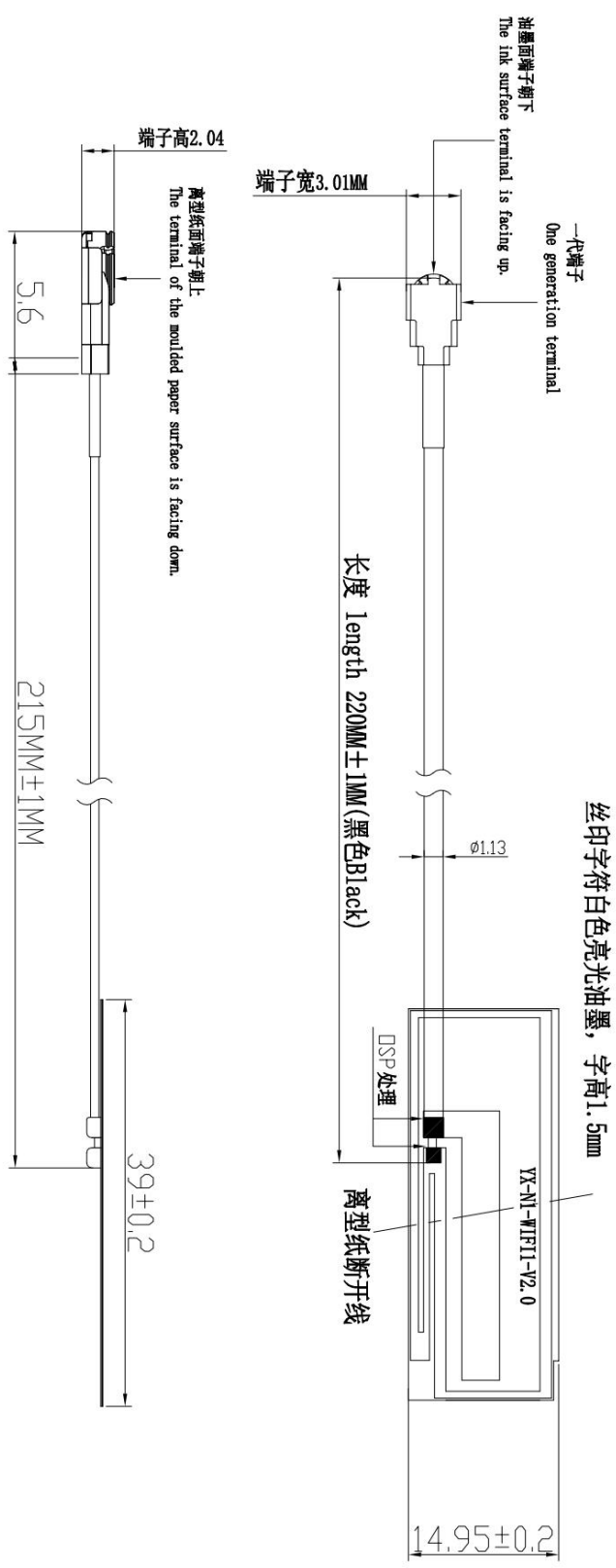
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REV

A0

| A                  |  | B                                  |  | C                                            |  | D                                                                                      |  | E        |  | F     |  | G             |  | H         |  |
|--------------------|--|------------------------------------|--|----------------------------------------------|--|----------------------------------------------------------------------------------------|--|----------|--|-------|--|---------------|--|-----------|--|
| 一对半0.12MM厚度(不带离型纸) |  | 一对半0.12MM+离型纸0.11MM=0.23MM厚度(带离型纸) |  | ONE AND A HALF 0.12MM THICKNESS (NO DEPAPEX) |  | A pair of half 0.12MM + de-tyred paper 0.11MM = 0.23MM thickness (with de-tyred paper) |  | REVISION |  | ECOH# |  | REVISION NOTE |  | AUTHOR    |  |
|                    |  |                                    |  |                                              |  |                                                                                        |  | A0       |  |       |  | New release   |  | 10/01.25' |  |
|                    |  |                                    |  |                                              |  |                                                                                        |  |          |  |       |  |               |  |           |  |



Describe:

1. Content "XXXX" indicates production date (year and week, e.g. 2101)

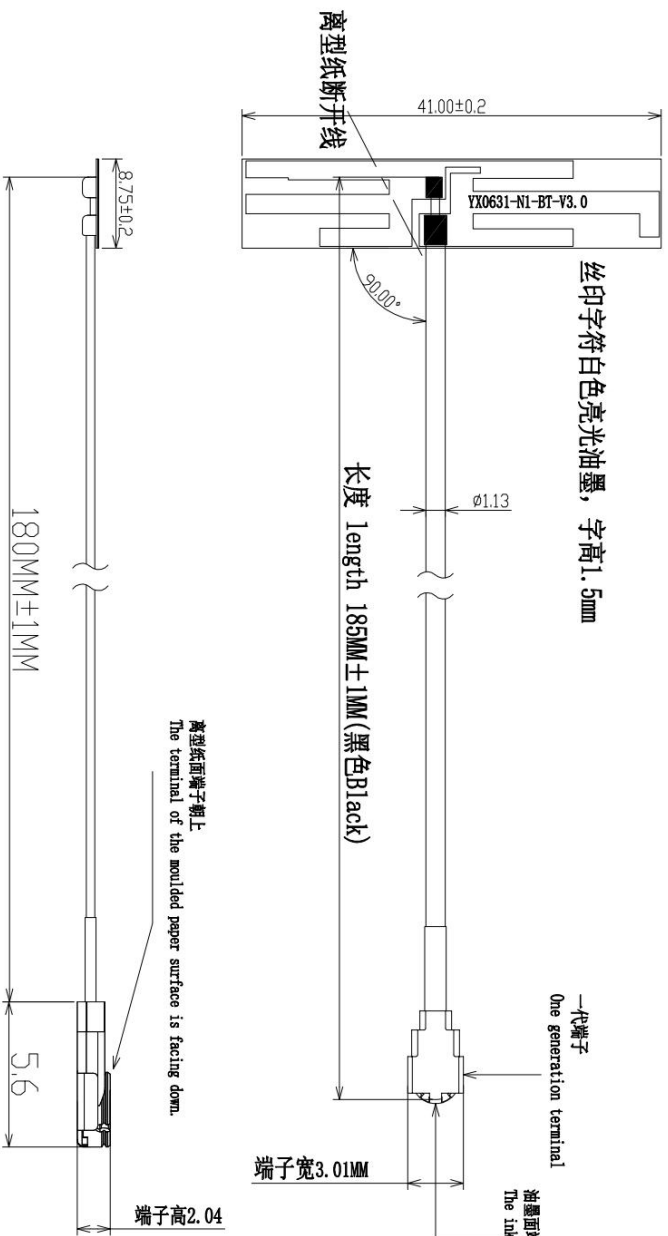
Note:

1. MATERIAL :18/12.5 electrolytic copper, PI base MATERIAL. The green line shows the outline of the copper layer, and the purple line shows the shape.
2. Tolerance requirements are not noted :A. copper foil to copper foil +/-0.05 B. Copper foil to shape +/-0.15(special requirements)
3. Tolerance from hole to shape +/-0.15(+/-0.10 if special requirements)
4. Nickel plating: Ni: 2-7um Au: not less than 0.025um (salt spray must be over 48h), ink: This PFC adhesive is 3M 9471LSF, the adhesive should be super strong!
5. Size requirements:
- 5.1. ST size: The minimum measurement quantity is any 35 product sizes selected from 500 for CPK analysis:
- 5.2. \* size is the key control size;
6. Any material modification must be approved in writing by the yGalax Engineering Department and passed all tests by the yGalax Quality Department;
7. Products must meet ROHS/HF/REACH standards;

|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|-----------------------------------|--|------|--|----------------|------------|
|                                                                                                                                         |           | BT天线PFC(黑色) |           | XXX                                                                                                                                                                                                     |  | XXX                    |  | 电解铜, PI基材                         |  | 1    |  |                |            |
| TEM                                                                                                                                     |           | PART NAME   |           | CLIENTELE UNMBE                                                                                                                                                                                         |  | P/N                    |  | MATERIAL                          |  | O'TY |  | REMARK         |            |
| GENERAL TOLERANCE TABLE                                                                                                                 |           |             |           | <div><div></div><div></div></div> |  | PART NAME<br>YX0631-N1 |  | TITLE:<br><br>YX0631 (WIFI1天线PFC) |  |      |  |                |            |
| LINEAR                                                                                                                                  |           | ANGULAR     |           | PART NUMBER                                                                                                                                                                                             |  |                        |  |                                   |  |      |  |                |            |
| DIVISION                                                                                                                                | TOLERANCE | DIVISION    | TOLERANCE | mm                                                                                                                                                                                                      |  |                        |  |                                   |  |      |  |                |            |
| 0-10                                                                                                                                    | ±0.05     | 0-5°        | ±0.5°     | MATERIAL<br>CLIENTELE NUMBER                                                                                                                                                                            |  |                        |  |                                   |  |      |  |                |            |
| 10-50                                                                                                                                   | ±0.10     | 5-20°       | ±1°       | SEE NOTE                                                                                                                                                                                                |  | FINISH                 |  | TITLE:<br><br>YX0631 (WIFI1天线PFC) |  |      |  |                |            |
| 50-80                                                                                                                                   | ±0.15     | 20-90°      | ±1.5°     | APPRO                                                                                                                                                                                                   |  |                        |  |                                   |  |      |  |                |            |
| >80                                                                                                                                     | ±0.2      |             |           | SIZE<br>SEE NOTE                                                                                                                                                                                        |  | FR: CHKD               |  |                                   |  |      |  |                |            |
| This document is property of<br>precision technology.<br>It is can not be copied,<br>updated and taken out<br>company/unless be allowed |           |             |           | A4<br>NUMBER                                                                                                                                                                                            |  | R DR<br>XXXXXX         |  | SCALE                             |  | FULL |  | PAGE<br>1 of 1 | REV:<br>A0 |
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|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |
|                                                                                                                                         |           |             |           |                                                                                                                                                                                                         |  |                        |  |                                   |  |      |  |                |            |

| A        |  | B    |  | C             |  | D      |  | E        |  | F |  | G |  | H |  |
|----------|--|------|--|---------------|--|--------|--|----------|--|---|--|---|--|---|--|
| REVISION |  | ECO# |  | REVISION NOTE |  | AUTHOR |  | DATE     |  |   |  |   |  |   |  |
| A0       |  |      |  | New release   |  |        |  | 10/01.25 |  |   |  |   |  |   |  |
|          |  |      |  |               |  |        |  |          |  |   |  |   |  |   |  |
|          |  |      |  |               |  |        |  |          |  |   |  |   |  |   |  |

一对半0.12MM厚度(不带离型纸)  
一对半0.12MM+离型纸0.11MM=0.23MM厚度(带离型纸)  
ONE AND A HALF 0.12MM THICKNESS (NO DEPAPE)  
ONE AND A HALF 0.12MM+ de-typed paper 0.11MM = 0.23MM thickness (with de-typed paper)



Describe:

1. Content "XXXX" indicates production date (year and week, e.g. 2101)

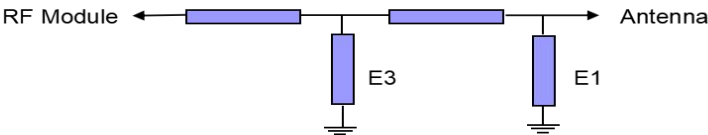
Note:

- MATERIAL :18/12.5 electrolytic copper, PI base MATERIAL. The green line shows the outline of the copper layer, and the purple line shows the shape.
- Tolerance requirements are not noted :A. copper foil to copper foil +/-0.05 B. Copper foil to shape +/-0.15(special requirements)
- Tolerance from hole to shape +/-0.15(+/-0.10 if special requirements)
- Nickel plating: NI: 2-7um NI: not less than 0.025um (salt spray must be over 48h), ink:
- This PFC adhesive is 3M 9471LSF, the adhesive should be super strong!
- Size requirements:
1. ST size: The minimum measurement quantity is any 35 product sizes selected from 500 for CPK analysis;
2. \* size is the key control size;
3. Any material modification must be approved in writing by the YGalax Engineering Department and passed all tests by the YGalax Quality Department;
4. Products must meet ROHS/HF/REACH standards;

| GENERAL TOLERANCE TABLE      |  | PART NAME          |  | CLIENTELE UNMBE |  | P/N         |  | MATERIAL         |  | O-TY    |  | REMARK |  |
|------------------------------|--|--------------------|--|-----------------|--|-------------|--|------------------|--|---------|--|--------|--|
| LINEAR                       |  | ANGULAR            |  | UNIT            |  | PART NUMBER |  | TITLE            |  | SCALE   |  | FULL   |  |
| DIVISION                     |  | TOLERANCE DIVISION |  | TOLERANCE       |  | MATERIAL    |  | CLIENTELE NUMBER |  | APPD    |  | PAGE   |  |
| 0-10                         |  | ±0.05              |  | 0-5°            |  | ±0.5°       |  | SEE NOTE         |  | RF CHKO |  | REV    |  |
| 10-50                        |  | ±0.10              |  | 5-20°           |  | ±1°         |  | SEE NOTE         |  | DR      |  | AO     |  |
| 50-80                        |  | ±0.15              |  | 20-30°          |  | ±1.5°       |  | SEE NOTE         |  | XXXXXX  |  |        |  |
| >80                          |  | ±0.2               |  |                 |  |             |  |                  |  |         |  |        |  |
| This document is property of |  | A4                 |  | RF CHKO         |  | XXXXXX      |  | YX0631 (BT天线PFC) |  |         |  |        |  |
| It is can not be copied.     |  | NUMBER             |  | P/N             |  | MATERIAL    |  | O-TY             |  | REMARK  |  |        |  |
| updated and taken out        |  | XXXXXX             |  |                 |  |             |  |                  |  |         |  |        |  |
| company unless be allowed    |  |                    |  |                 |  |             |  |                  |  |         |  |        |  |

深圳星河电波科技有限公司  
ShenZhen yGalax.com

天线匹配修改示意 (Antenna matching modification schematic)

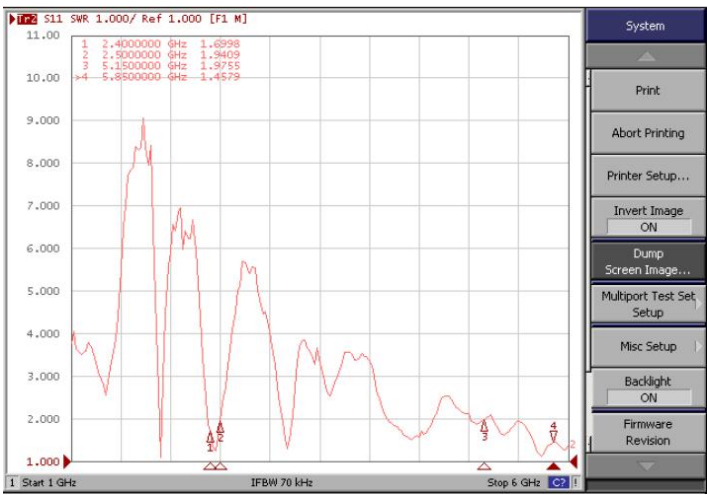
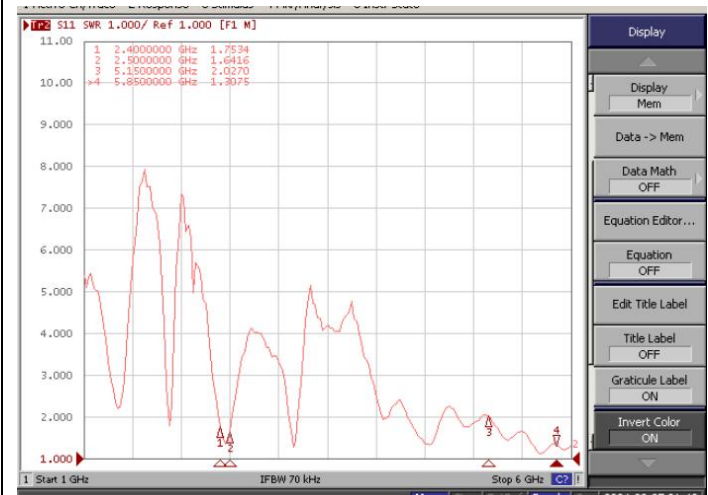


| 主天线 | Element | Value |
|-----|---------|-------|
|     | E1      | N/C   |
|     | E2      | OR    |
|     | E3      | N/C   |
|     | E4      | OR    |

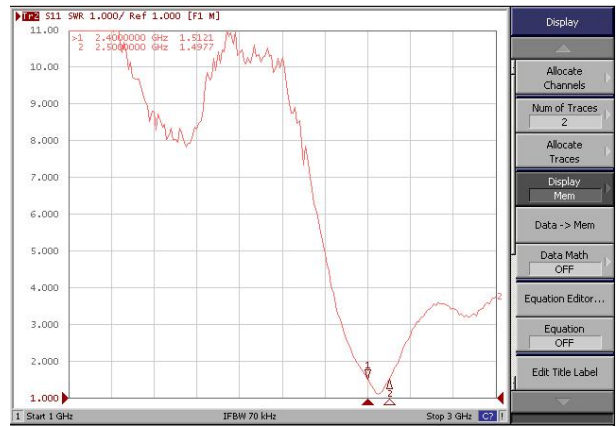
WiFi-OTA测试数据 (WL0+WL1)    WiFi-OTA test data (WL0+WL1)

| FS              | Channel | TRP (dBm) | TIS (dBm) | FS            | Channel | TRP (dBm) | TIS (dBm) |  |
|-----------------|---------|-----------|-----------|---------------|---------|-----------|-----------|--|
| 2.4G-WiFi (11b) | 1       | 16.85     | -72.71    | 5G-WiFi (54A) | 36      | 15.85     | -74.93    |  |
|                 | 6       | 16.74     | -70.83    |               | 149     | 15.74     | -74.57    |  |
|                 | 11      | 16.77     | -74.35    |               | 165     | 15.91     | -75.23    |  |

WiFi0-WiFi1-S11参数    WiFi0-WiFi1-S11 parameters



BT-S11参数 BT-S11 Parameters



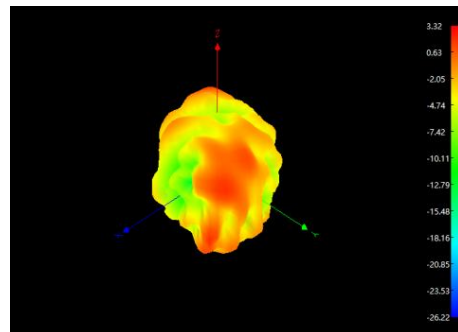
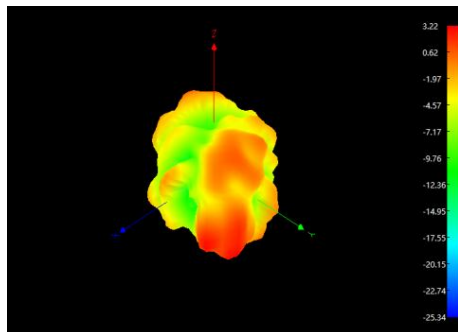
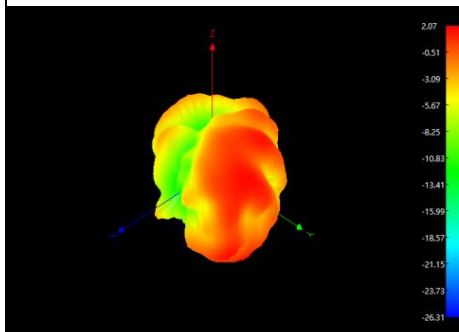
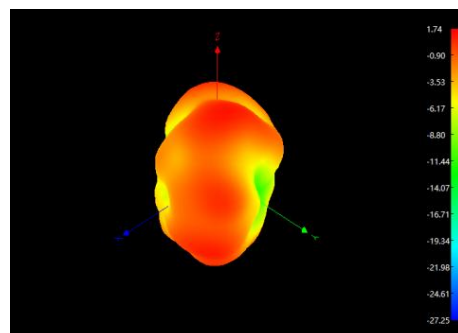
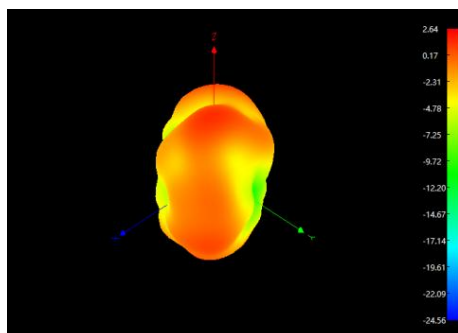
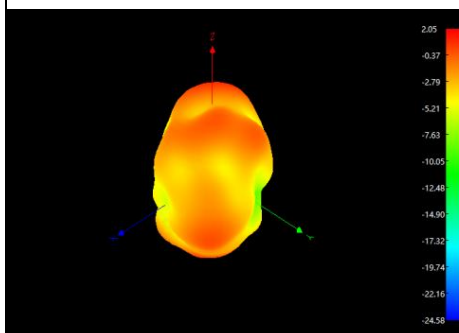
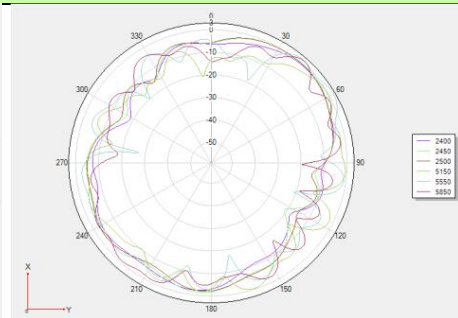
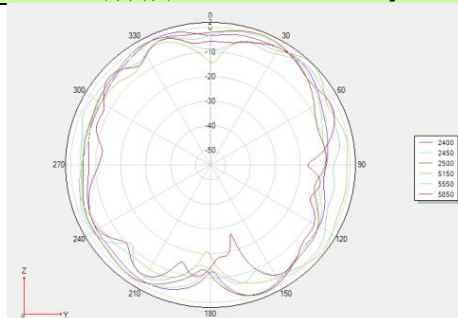
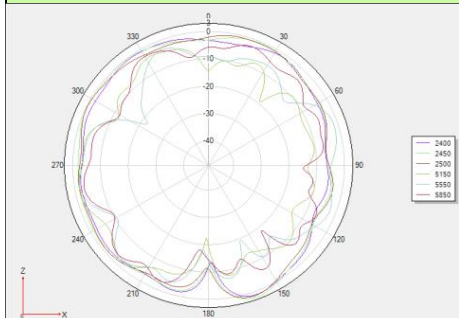
WiFi-0 效率 WiFi-0 efficiency

| Frequency/Mhz | Efficiency / % | MaxGain/dBi |  | Frequency/Mhz | Efficiency / % | MaxGain/dBi |  | Frequency/Mhz | Efficiency / % | MaxGain/dBi |  |
|---------------|----------------|-------------|--|---------------|----------------|-------------|--|---------------|----------------|-------------|--|
| 2400          | 50.34          | 2.05        |  | 5150          | 40.99          | 2.07        |  | 5510          | 39.46          | 3.02        |  |
| 2410          | 50.75          | 2.47        |  | 5170          | 39.07          | 2.02        |  | 5530          | 40.54          | 3.13        |  |
| 2420          | 50.58          | 2.39        |  | 5190          | 41.36          | 2.37        |  | 5550          | 41.74          | 3.22        |  |
| 2430          | 51.33          | 2.58        |  | 5210          | 39.07          | 2.21        |  | 5570          | 39.55          | 2.87        |  |
| 2440          | 52.08          | 2.61        |  | 5230          | 39.15          | 2.24        |  | 5590          | 40.99          | 2.96        |  |
| 2450          | 53.62          | 2.64        |  | 5250          | 41.63          | 2.59        |  | 5610          | 41.5           | 3.07        |  |
| 2460          | 52.95          | 2.37        |  | 5270          | 40.55          | 2.45        |  | 5630          | 42.17          | 3.37        |  |
| 2470          | 52.98          | 2.1         |  | 5290          | 41.9           | 2.63        |  | 5650          | 41.59          | 3.49        |  |
| 2480          | 51.08          | 2.2         |  | 5310          | 43.11          | 2.74        |  | 5670          | 43.05          | 3.79        |  |
| 2490          | 51.29          | 2.05        |  | 5330          | 41.63          | 2.62        |  | 5690          | 41.45          | 3.51        |  |
| 2500          | 50.28          | 1.74        |  | 5350          | 41.88          | 2.98        |  | 5710          | 42.55          | 3.7         |  |
|               |                |             |  | 5370          | 42.17          | 3.16        |  | 5730          | 42.64          | 3.7         |  |
|               |                |             |  | 5390          | 41.5           | 3.14        |  | 5750          | 40.73          | 3.46        |  |
|               |                |             |  | 5410          | 40.46          | 3.09        |  | 5770          | 42.09          | 3.6         |  |
|               |                |             |  | 5430          | 42.07          | 3.32        |  | 5790          | 42.46          | 3.62        |  |
|               |                |             |  | 5450          | 41.37          | 3.01        |  | 5810          | 39.33          | 3.28        |  |
|               |                |             |  | 5470          | 41.64          | 3.07        |  | 5830          | 41.54          | 3.44        |  |
|               |                |             |  | 5490          | 41.83          | 3.36        |  | 5850          | 40.55          | 3.32        |  |

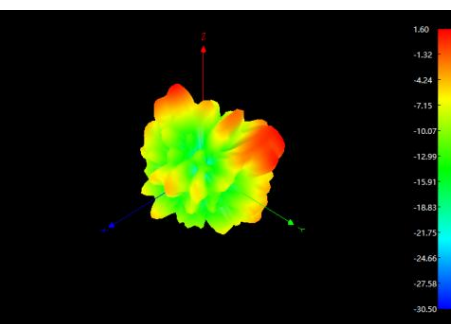
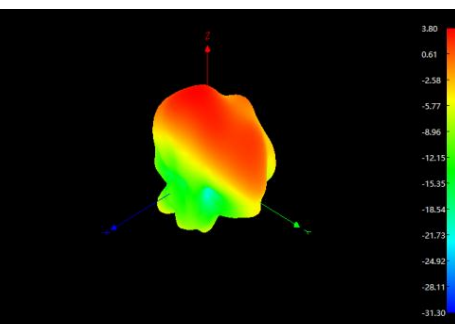
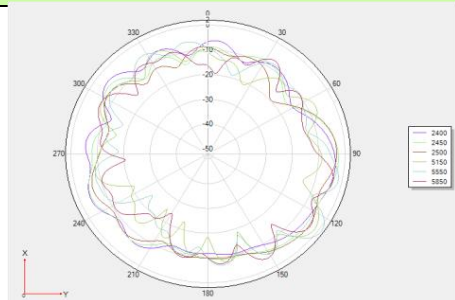
| WiFi-1 效率    WiFi-1 efficiency |                |             |  |                   |                |             |  |                   |                |                 |  |
|--------------------------------|----------------|-------------|--|-------------------|----------------|-------------|--|-------------------|----------------|-----------------|--|
| Frequency/M<br>hz              | Efficiency / % | MaxGain/dBi |  | Frequency/M<br>hz | Efficiency / % | MaxGain/dBi |  | Frequency/M<br>hz | Efficiency / % | MaxGain/d<br>Bi |  |
| 2400                           | 51.21          | 3.6         |  | 5150              | 42.27          | 2.44        |  | 5510              | 41             | 2.94            |  |
| 2410                           | 51.98          | 3.87        |  | 5170              | 41.91          | 2.16        |  | 5530              | 41.96          | 3.11            |  |
| 2420                           | 50.67          | 3.89        |  | 5190              | 42.25          | 2.09        |  | 5550              | 41.26          | 3.36            |  |
| 2430                           | 52.77          | 4.2         |  | 5210              | 41.67          | 1.74        |  | 5570              | 40.49          | 2.91            |  |
| 2440                           | 52.34          | 4.18        |  | 5230              | 42.33          | 1.88        |  | 5590              | 41.44          | 2.95            |  |
| 2450                           | 52.42          | 4.33        |  | 5250              | 42.88          | 2           |  | 5610              | 41.87          | 2.81            |  |
| 2460                           | 50.77          | 4.08        |  | 5270              | 42.62          | 1.74        |  | 5630              | 42.18          | 2.72            |  |
| 2470                           | 52.45          | 4.24        |  | 5290              | 43.06          | 1.78        |  | 5650              | 42.02          | 2.66            |  |
| 2480                           | 50.16          | 4.14        |  | 5310              | 43.68          | 1.99        |  | 5670              | 42.62          | 2.83            |  |
| 2490                           | 51.08          | 4.2         |  | 5330              | 42.71          | 1.75        |  | 5690              | 41.14          | 2.41            |  |
| 2500                           | 49.59          | 3.8         |  | 5350              | 40.68          | 2.21        |  | 5710              | 41.41          | 2.38            |  |
|                                |                |             |  | 5370              | 40.46          | 2.36        |  | 5730              | 41.6           | 2.37            |  |
|                                |                |             |  | 5390              | 40.9           | 2.69        |  | 5750              | 40.74          | 2.04            |  |
|                                |                |             |  | 5410              | 40.49          | 2.75        |  | 5770              | 41.33          | 2.08            |  |
|                                |                |             |  | 5430              | 41.09          | 3.04        |  | 5790              | 41.33          | 1.94            |  |
|                                |                |             |  | 5450              | 39.82          | 2.71        |  | 5810              | 39.93          | 1.49            |  |
|                                |                |             |  | 5470              | 40.9           | 3.05        |  | 5830              | 40.31          | 1.62            |  |
|                                |                |             |  | 5490              | 41.39          | 3.17        |  | 5850              | 39.96          | 1.6             |  |

| BT-效率 BT-Efficiency |                |             |
|---------------------|----------------|-------------|
| Frequency/Mhz       | Efficiency / % | MaxGain/dBi |
| 2400                | 52.95          | 2.29        |
| 2410                | 52.45          | 2.18        |
| 2420                | 53.85          | 2.16        |
| 2430                | 53.21          | 2.21        |
| 2440                | 52.33          | 2.26        |
| 2450                | 52.33          | 2.24        |
| 2460                | 50.6           | 2.21        |
| 2470                | 49.29          | 1.91        |
| 2480                | 51.09          | 2.2         |
| 2490                | 51.09          | 1.99        |
| 2500                | 50             | 1.72        |

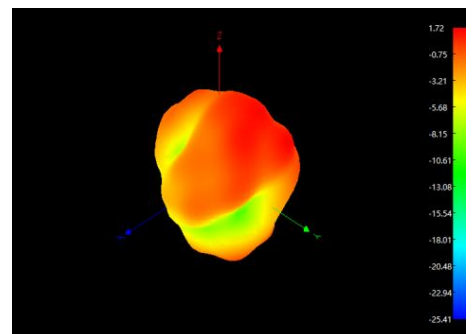
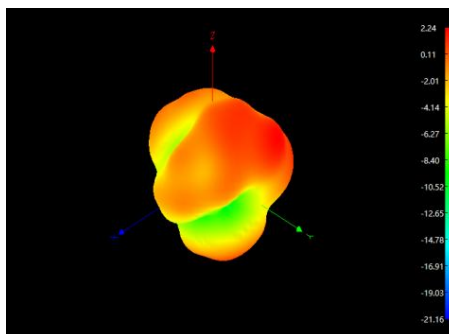
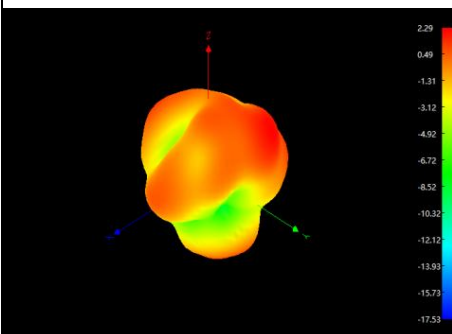
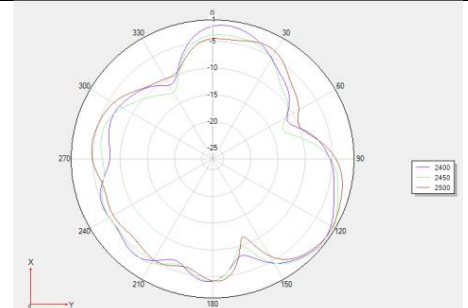
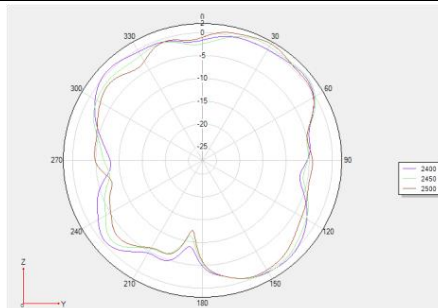
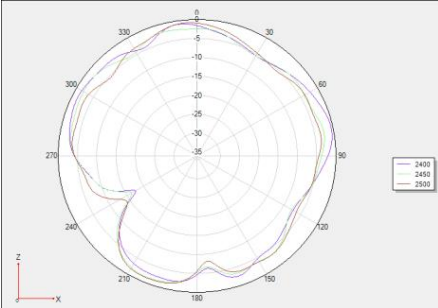
WiFi-0 方向图 WiFi-0 radiation pattern



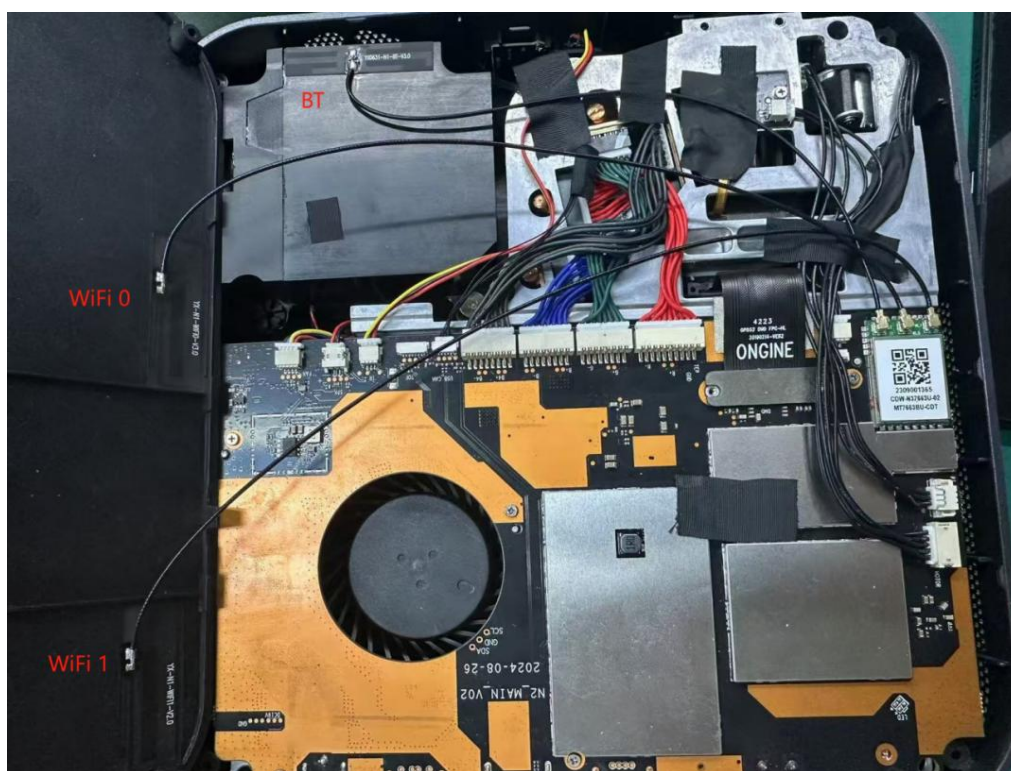
## WiFi-1 方向图 WiFi-1 Radiation Pattern



BT 方向图 BT radiation pattern



天线贴装区域 Antenna mounting area



RoHS限用物质成份调查表

RoHS Restricted Substance Composition sheet

| 所供产品信息                                         |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
|------------------------------------------------|----------------------|-------------------------|---------------|-------------------------|--------------------|---------------------------------------------------------|------|------|---------------------|----------------------|--------|--------|
| 客户名称<br>customer name                          |                      | 物料名称/型号<br>Metarial NO# |               | 项目名称<br>Project name    |                    | 制造商<br>manufacturer                                     |      |      |                     | 绿色物料标识<br>green mark |        |        |
| 深圳市联合极光科技有<br>限公司<br>LianheJiguang             |                      | N1 天线                   |               | N1                      |                    | 深圳星河电波科技有限公司<br>Shenzhen yGalax Technologies<br>Limited |      |      |                     | /                    |        |        |
| 产品构成信息                                         |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
| Product composition information                |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
| item                                           | part name            | part NO#                | VOLUME UP     | Third party test report |                    | Limit substance content PPM                             |      |      |                     |                      |        | remark |
|                                                |                      |                         |               | DATE                    | number             | (Pb)                                                    | (Cd) | (Hg) | (Cr <sup>6+</sup> ) | (PBB)                | (PBDE) |        |
| 1                                              | 3M adhesive          | /                       | honjingxinban | 2021/1/13               | SHAEC2100467601    | O                                                       | O    | O    | O                   | O                    | O      |        |
| 2                                              | COPPER CLAD LAMINATE | /                       | caigelundi    | 2021/3/3                | SHAEC2103249001    | O                                                       | O    | O    | O                   | O                    | O      |        |
| 3                                              | ink                  | /                       | kaiyao        | 2021/8/17               | ERT2102095         | O                                                       | O    | O    | O                   | O                    | O      |        |
| 4                                              | electroplatin        | /                       | jiahongtai    | 2021-5-13               | A2210168276101001E | O                                                       | O    | O    | O                   | O                    | O      |        |
|                                                | g                    |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
|                                                |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
| 2、PPM限量值：镉<100PPM；铅/汞/六价铬/PBB/PBDE<1000PPM。    |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
| 3、其中针对包装材料中铅、六价铬、汞和镉的总量不超过100ppm。              |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |
| 4、此表请供应商完整填写后盖章； 此处供应商指直接交易方。（提供盖章的纸件或扫描PDF文件） |                      |                         |               |                         |                    |                                                         |      |      |                     |                      |        |        |

填写人：张海峰

填写人公司/部门：品质

## 盐雾测试报告

## Salt spray test report

日期: 20250315  
date: 20250315

|                                                                                                                                                                                                                                                                                                                                                    |                                                                                                    |                                       |                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------|
| 产品名称<br>product name                                                                                                                                                                                                                                                                                                                               | N1 天线                                                                                              | 客户名称<br>customer name                 | 深圳市联合极光科技有限公司<br>Lianhe jiguang                     |
| 供应商<br>supplier                                                                                                                                                                                                                                                                                                                                    | 深圳星河电子科技有限公司<br>Shenzhen yGalax Technologies Limited                                               | 国家测试标准<br>National est standard       | GB/T 2423.2-2008                                    |
| 样品情况<br>Sample situation                                                                                                                                                                                                                                                                                                                           | 数量: 5件 QTY: 5PCS                                                                                   |                                       |                                                     |
|                                                                                                                                                                                                                                                                                                                                                    | 材料: 单面半胶态电解铜<br>MATERIAL : One - sided half - half colloidal electrolytic copper                   | 镀层厚度: ≥3U"<br>Plating thickness: ≥3U" |                                                     |
| 测试时间<br>TEST DATE                                                                                                                                                                                                                                                                                                                                  | 从20240525 9: 00至20240527 9: 00 共计48小时<br>FROM 20240525 9:00 TO 20240527 9: 00 TOTAL 48 H           |                                       |                                                     |
| 测试类型<br>TEST TYPE                                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> NSS                                                            | <input type="checkbox"/> ASS          | <input type="checkbox"/> CASS                       |
| 试验条件<br>test condition                                                                                                                                                                                                                                                                                                                             | 生理盐水溶液: 5% saline solution: 5%                                                                     |                                       | PH:7.0                                              |
|                                                                                                                                                                                                                                                                                                                                                    | 箱内温度: 35℃<br>the temperature inside the box: 35℃                                                   |                                       | 相对湿度: 85%<br>relative humidity: 85%                 |
|                                                                                                                                                                                                                                                                                                                                                    | Spray way: <input checked="" type="checkbox"/> continue <input type="checkbox"/> gap               |                                       | 压缩空气压力: 1kg/cm²<br>compressed air pressure: 1kg/cm² |
|                                                                                                                                                                                                                                                                                                                                                    | 盐雾沉降速率: 1-2ml/80cm²/h<br>Salt spray sedimentation rate: 1-2ml/80cm²/h                              |                                       | Fog fluid collection: 1.4ml/80cm²/h                 |
|                                                                                                                                                                                                                                                                                                                                                    | 测试周期: 一个循环<br>test cycle: A loop                                                                   |                                       | 喷雾时间: 48小时<br>Spray time: 48 h                      |
| 试验结果<br>test result                                                                                                                                                                                                                                                                                                                                | 试验后外观: 外观完好, 无明显变化。<br>Appearance after test: The appearance is intact without significant change. |                                       |                                                     |
|                                                                                                                                                                                                                                                                                                                                                    | 涂层: 无剥落, 无腐蚀<br>Coating: no peeling, no corrosion                                                  |                                       |                                                     |
|                                                                                                                                                                                                                                                                                                                                                    | 表面喷涂, 丝网印刷: 无脱落, 无气泡<br>Surface spraying, screen printing: no shedding, no bubbles                 |                                       |                                                     |
| NOTE:<br>1. 盐雾试验操作标准符合中华人民共和国国家标准GB/T2423.17-2008<br>1. salt spray test operating standards in accordance with the People's Republic of China national standard GB/T2423.17-2008<br>2. 试验结果按中华人民共和国国家标准GB/T6461-02标准确定<br>3. The test results shall be determined according to the national standard GB/T6461-02 of the People's Republic of China |                                                                                                    |                                       |                                                     |
| test date:                                                                                                                                                                                                                                                                                                                                         |                                                                                                    | check:                                |                                                     |

高/低温测试记录

High and low temperature test records

|                                                                                                                                                                                                      |                |                       |                                 |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|---------------------------------|-----------------------|
| 产品名称<br>product name                                                                                                                                                                                 | N1 天线          | 客户名称<br>customer name | 深圳市联合极光科技有限公司<br>Lianhe jiguang |                       |
| 测试数量<br>test QTY                                                                                                                                                                                     | 6 pcs          | 时间<br>TEST DATE       | 2025/3/18                       |                       |
| 循环次数<br>cycle-index                                                                                                                                                                                  | 1              | 测试时间<br>test time     | 48H                             |                       |
| 测试条件<br>test condition<br>高温: + 65℃ 湿度: 90 % RH<br>high temperature: + 65℃ humidity: 90 % RH<br>低温度: - 1 °C<br>low temprature: - 1 °C<br>试验: 高温: 48 H 低温: 1 H<br>test: high-temp: 48 H low-temp: 1 H |                |                       |                                 |                       |
| 试验项目<br>test project                                                                                                                                                                                 | Uncycledtest   |                       | cycledtest                      |                       |
| item                                                                                                                                                                                                 | After the high | After low temperature | After the high                  | After low temperature |
| 1                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 2                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 3                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 4                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 5                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 6                                                                                                                                                                                                    | OK             | /                     |                                 |                       |
| 试验后缺陷Post test defect:                                                                                                                                                                               |                |                       |                                 |                       |
| 原因分析reason analysis:                                                                                                                                                                                 |                |                       |                                 |                       |
| 改进措施improvement measure:                                                                                                                                                                             |                |                       |                                 |                       |
| 实验结果test result: PASS <input checked="" type="checkbox"/> <input type="checkbox"/>                                                                                                                   |                |                       |                                 |                       |

| Packing包装            |                          |                     |                                                   |
|----------------------|--------------------------|---------------------|---------------------------------------------------|
| 料号<br>Material code: | 115. 1. 01. 3713. 000068 | 产品名称Product name:   | FPC天线FPC Antenna                                  |
| 产品规格Spec:            | PPC 焊接 Cable             | 包装材料Package:        | 密封袋、纸箱Bag/Carton                                  |
| 包装数量Qty/bag:         | 100PCS/bag               | 包装方式Package method: | 100 PCS/bag , 10 small bag/big bag, 5 bags/carton |
| 装箱数量QTY/Carton:      |                          |                     |                                                   |

图1: 单件包装



图2: 装箱包装方式

100 PCS/bag , 10 small bag/big bag, 5 bags/carton

图3: 包装箱视图（正面、侧面、顶部）



图4: 外箱



备注: FPC产品以单体制作, 每箱20000PCS包装。FPC products produced with monomer, 5000 PCS per box packaging

拟制Edited by:

审核Approved by: