



# 承认书

## APPROVAL SHEET

样品封订

客户名称 Customer Name 多酷

产品型号 Product Model WR3600H

客户料号 Customer P/N

规格描述 Specifications 黑色利刃型外置天线, 5G, 1.37 黑色 L=130mm

南斗星料号 Southstar P/N 3. N102. 1340

制作日期 Production date 2024. 08. 09

制作版本 Revision 1.0

| 南斗星 (Southstar) |          |          |
|-----------------|----------|----------|
| 编制 (FICTION)    | 品质 (DQE) | 研发 (R&D) |
|                 |          |          |
| 客户 (Customer)   |          |          |
| 采 购 (PUR)       | 品质 (QC)  | 研发 (R&D) |
|                 |          |          |

制造厂商：深圳市南斗星科技有限公司

办公地址：深圳市宝安区福海街道新和社区宝安大道 6099 号星港同创汇天枢座 803

制造地址：广东省东莞市虎门镇赤岗南坊一路 3 号

电 话：0755-27474071 0769-88086190

网 址：//www.southstar-tech.com



深圳市南斗星科技有限公司

SHENZHEN SOUTH STAR TECHNOLOGY CO.,LTD

承认书变更履历

| 版本  | 日期         | 变更描述 | 备注 |
|-----|------------|------|----|
| 1.0 | 2024.08.09 | 初版   |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |
|     |            |      |    |



# 目 录

## Index

|                                      |     |
|--------------------------------------|-----|
| 一、封面 (Cover)                         | 1   |
| 二、版本记录 (Colophon)                    | 2   |
| 三、目录 (Index)                         | 3   |
| 四、基本参数 (The basic parameters)        | 4   |
| 五、工程图纸 (Product Drawing)             | 5   |
| 六、测试设备 (Test Equipment & Conditions) | 6   |
| 七、测试报告 (Test Report)                 | 7-8 |
| 八、天线装配图片 (Antenna assembly picture)  | 9   |
| 九、包装方式 (Packing method)              | 10  |

**基本参数 (The basic parameters):**

| A. 电性能Electrical Characteristics                |                  |
|-------------------------------------------------|------------------|
| Frequency 频率                                    | 5150MHz ~5850MHz |
| VSWR 电压驻波比                                      | $\leq 2$         |
| Efficiency 效率                                   | 68.99%@5500MHz   |
| Impedance 阻抗                                    | 50 Ohm           |
| Polarization 极化                                 | Linear           |
| Gain 增益                                         | 4.51dBi@5500MHz  |
| Note 备注:                                        |                  |
| B. 材料&物理性能Material & Mechanical Characteristics |                  |
| 射频材料 Material of Radiator                       | 外置               |
| 射频线类型 Cable Type                                | 1.37mm 黑色        |
| 接头类型 Connector Type                             | 一代               |
|                                                 |                  |
| C. 环境 Environmental                             |                  |
| 工作温度 Operation Temperature                      | -30°C ~ +65°C    |
| 存放温度 Storage Temperature                        | -40°C ~ +70°C    |
|                                                 |                  |

| 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6  |     | 7 |  | 8  |  |    |  |
|---|--|---|--|---|--|---|--|---|--|----|-----|---|--|----|--|----|--|
|   |  |   |  |   |  |   |  |   |  | 版本 | 描述  |   |  | 日期 |  | 备注 |  |
|   |  |   |  |   |  |   |  |   |  | △A | 新发文 |   |  |    |  |    |  |
|   |  |   |  |   |  |   |  |   |  |    |     |   |  |    |  |    |  |

A

B

C

D

Technical drawing of a 5G-2 antenna assembly. The drawing includes a top view and a side view. The top view shows a long, thin antenna with a central feed point and a mounting bracket. Dimensions include a total length of 174.98±0.5, a mounting bracket width of 8.91±0.1, and a feed point diameter of 1.37. The side view shows the antenna's profile with a mounting bracket and a feed point. Dimensions include a mounting bracket height of 10.94±0.1, a feed point diameter of 1.37, and a mounting bracket width of 8.91±0.1. Callouts 1 through 7 identify specific components: 1. Feed point, 2. Mounting bracket, 3. Mounting bracket, 4. Mounting bracket, 5. Mounting bracket, 6. Mounting bracket, 7. Mounting bracket.

技术要求:

1. 标“\*”尺寸为重点管控尺寸;
2. 未标注公差依照图纸标准公差表;
3. 无虚焊、假焊、连锡、短路、断路等不良现象;
4. 所有部件需符合RoHS2.0及REACH要求;

| 7  | 1. Z02. 0448 | 泡棉       | EVA/ 黑色            | 1  |    |
|----|--------------|----------|--------------------|----|----|
| 6  | 2. A01. 2229 | 5G-2/射频线 | φ1.37mm/ 黑色线+一代端子  | 1  |    |
| 5  | 2. A21. 0794 | 5G/PCB   | FR4单面板/ 黑色, T0.6mm | 1  |    |
| 4  | 2. A07. 0799 | 利刃后盖     | ABS 黑色             | 1  |    |
| 3  | 2. A07. 0030 | 铆钉       | POM 黑色             | 2  |    |
| 2  | 2. A07. 0689 | 下固(30度)  | PC 黑色              | 1  |    |
| 1  | 2. A07. 0798 | 利刃杆套     | ABS 黑色             | 1  |    |
| 编号 | 料号           | 品名       | 规格描述               | 数量 | 备注 |
| 1  | 2            | 3        | 4                  | 5  | 6  |

|               |      |           |      |     |      |         |               |      |                |                |   |
|---------------|------|-----------|------|-----|------|---------|---------------|------|----------------|----------------|---|
| 端子方向标准        |      | 未注公差表     |      | 项 目 |      | WR3600H |               | 结 构  |                | 雷双露 2024-08-24 |   |
| 线长L≤100       | ±45° | 0.5~6     | ±0.1 | —   | 0.1  | 品 名     | 5G-2/天线       | 射 频  | 李 娜 2024-08-24 |                |   |
| 100 < L ≤ 200 | ±90° | >6~30     | ±0.2 | ○   | 0.1  | 料 号     | 3. N102. 1340 | 审 核  |                |                |   |
| 线长L>200       | 不管控  | >30~120   | ±0.3 | ◎   | 00.1 | 客户料号    | /             | 单 位  | mm             | 版本             | A |
|               |      | >120~400  | ±0.5 | ⊥   | 0.1  | 页码      | 1/1           | 第三视角 | 比 例            | FIT            |   |
|               |      | >400~1000 | ±0.8 | ∕   | 0.1  |         |               |      |                |                |   |
|               |      | >1000     | ±1.2 | 角度  | ±1.0 |         |               |      |                |                |   |

## 测试设备 (Test Equipment & Conditions):

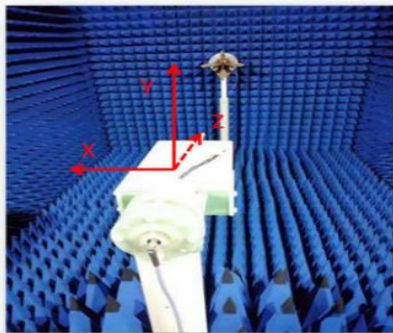
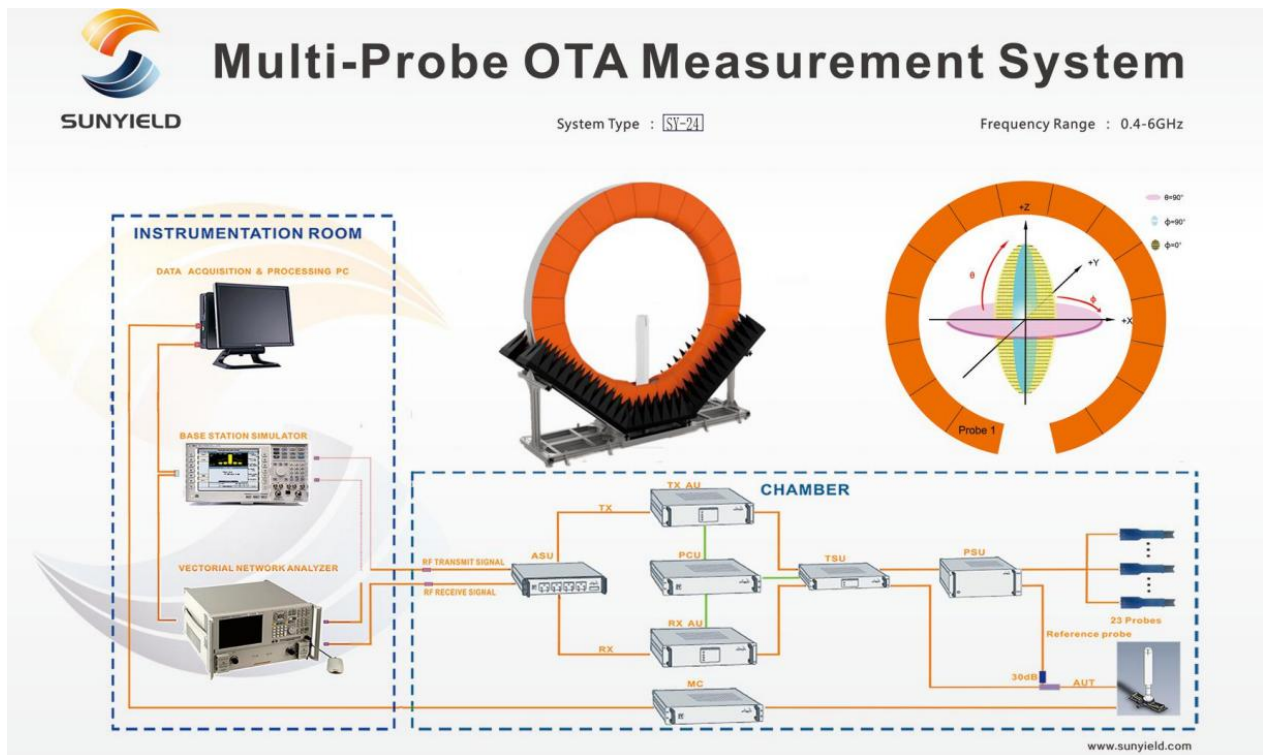
### 1. 网络分析仪 NetWork Analyzers:

Keysight E5071C

### 2. 综合测试仪 Comprehensive tester:

CMW500 、 MT8000A、 MT8862A

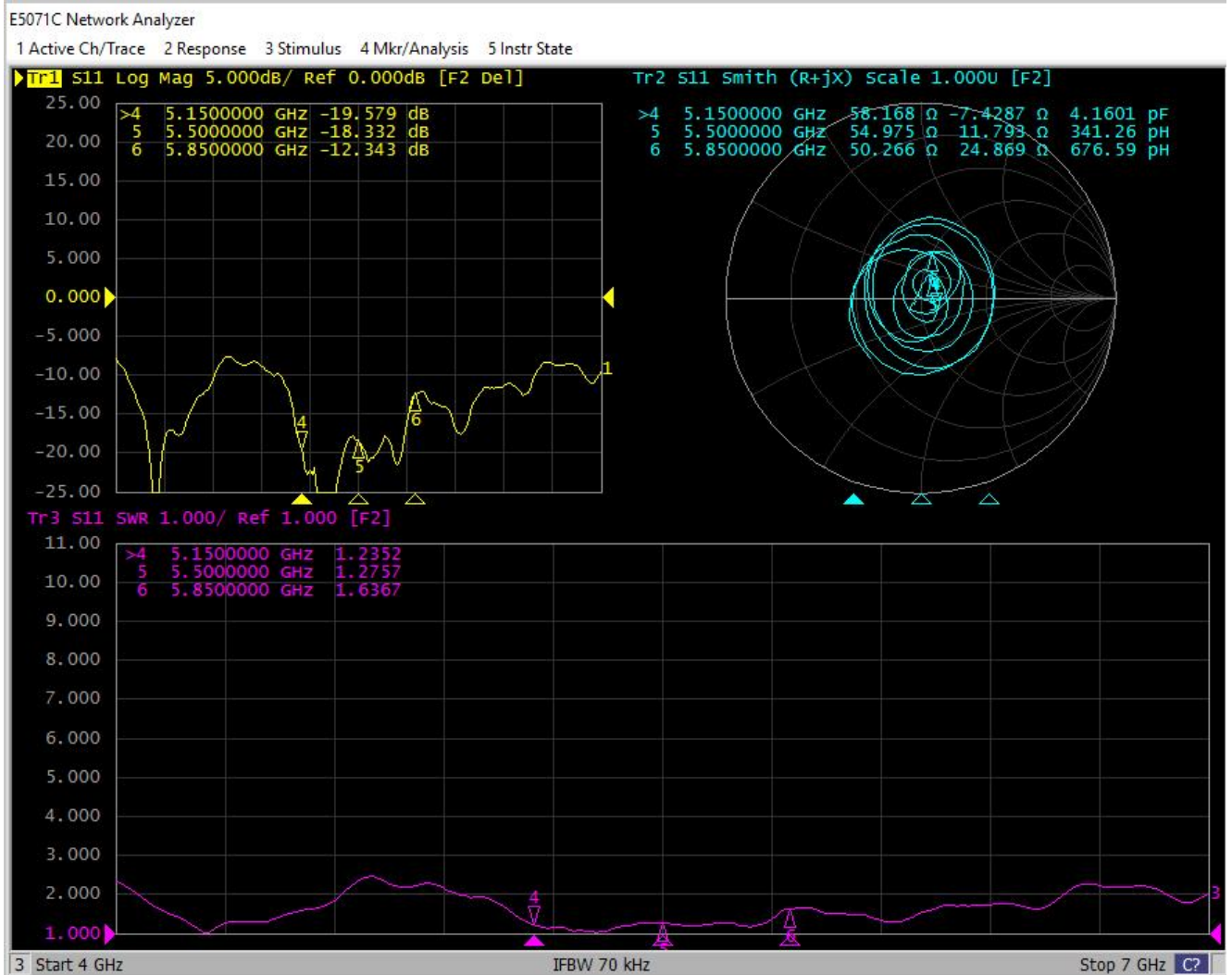
### 3. 3D 暗室测试系统 3D Chamber Test System:



H 面: XOY轴;  
E1面: XOZ轴;  
E2面: YOZ轴;



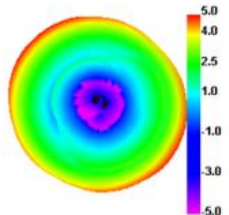
天线阻抗 (Antenna Impedance): S11



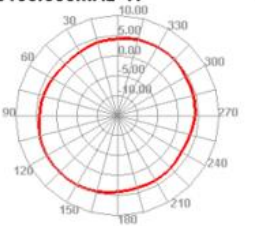
效率&增益(Efficiency & Gain):

| Freq<br>(MHz) | Effi<br>(%) | Gain<br>(dBi) |
|---------------|-------------|---------------|
| 5150          | 73.1        | 5             |
| 5200          | 72.76       | 4.94          |
| 5250          | 73.72       | 5.06          |
| 5300          | 72.92       | 4.96          |
| 5350          | 70.99       | 4.88          |
| 5400          | 70.41       | 4.74          |
| 5450          | 69.88       | 4.6           |
| 5500          | 68.99       | 4.51          |
| 5550          | 68.76       | 4.57          |
| 5600          | 70.17       | 4.76          |
| 5650          | 73.92       | 5.19          |
| 5700          | 73.79       | 5.12          |
| 5750          | 74.24       | 5.26          |
| 5800          | 75.66       | 5.36          |
| 5850          | 73.73       | 5.06          |

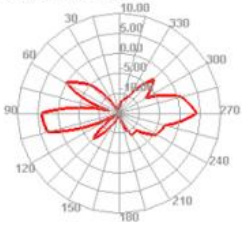
5150.000MHz



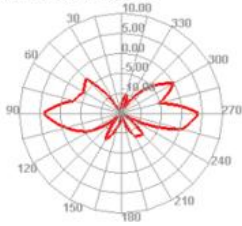
5150.000MHz H



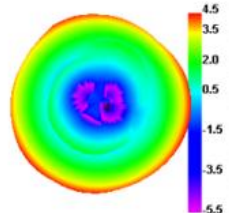
5150.000MHz E1



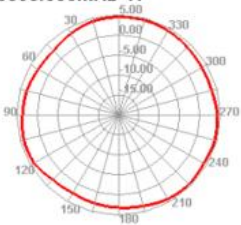
5150.000MHz E2



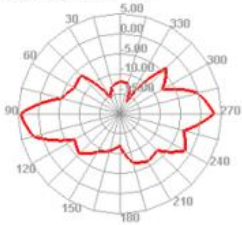
5500.000MHz



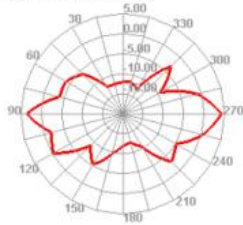
5500.000MHz H



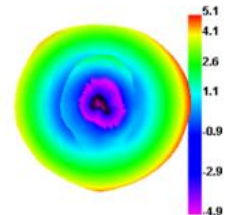
5500.000MHz E1



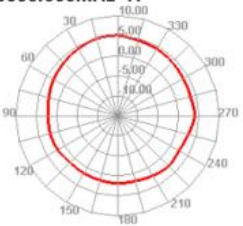
5500.000MHz E2



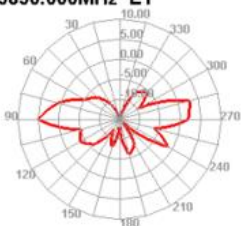
5850.000MHz



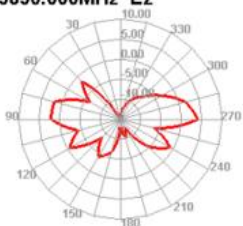
5850.000MHz H



5850.000MHz E1



5850.000MHz E2





深圳市南斗星科技有限公司

SHENZHEN SOUTH STAR TECHNOLOGY CO.,LTD

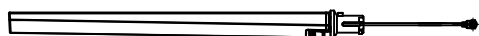
天线装配图片 (Antenna assembly picture):



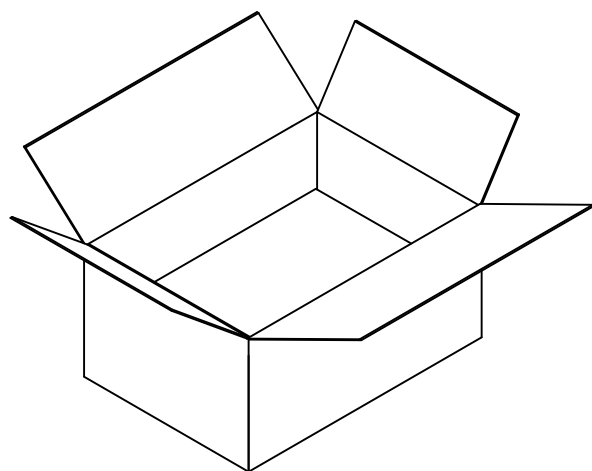
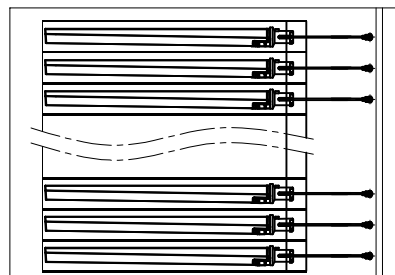
成品名称：利刃外置天线-黑色

版本：A

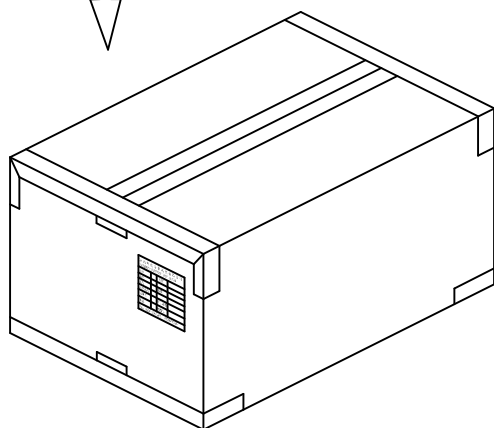
一：成品天线



二：每10PCS装排袋，50PCS产品用一个夹链袋包装。



三：装箱, 每箱装600PCS (以实际包装为准)。



四：封箱，外箱贴我司生产标签和ROHS标签。

制作：雷双露

审核：