



样品封订

承认书

APPROVAL SHEET

客户名称 Customer Name 深圳市智微智能科技股份有限公司

产品型号 Product Model 七彩虹

客户料号 Customer P/N 301800008709

规格描述 Specifications 黑色外置天线, 2.4G&5G, SMA 接头

南斗星料号 Southstar P/N 3. N102. 0997

制作日期 Production date 2023. 05. 09

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南斗星 (Southstar)		
编制 (FICTION)	品质 (DQE)	研发 (R&D)
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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	2023.05.09	初版	



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基本参数 (The basic parameters):

A. 电性能Electrical Characteristics	
Frequency 频率	2400MHz ~2500Hz 5150MHz ~5850MHz
VSWR 电压驻波比	≤2
Efficiency 效率	>60%
Impedance 阻抗	50 Ohm
Polarization 极化	Linear
Gain 增益	4dBi
Note 备注:	单天线测试
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	1.78mm 棕色
接头类型 Connector Type	SMA
C. 环境 Environmental	
工作温度 Operation Temperature	-30℃ ~ +65℃
存放温度 Storage Temperature	-40℃ ~ +70℃

1	2	3	4	5	6	7	8	
					版本	描述	日期	备注
					△A	新发文	2023-05-21	

Technical drawing of a mechanical part, likely a rail or track component, showing a side view and a cross-sectional view.

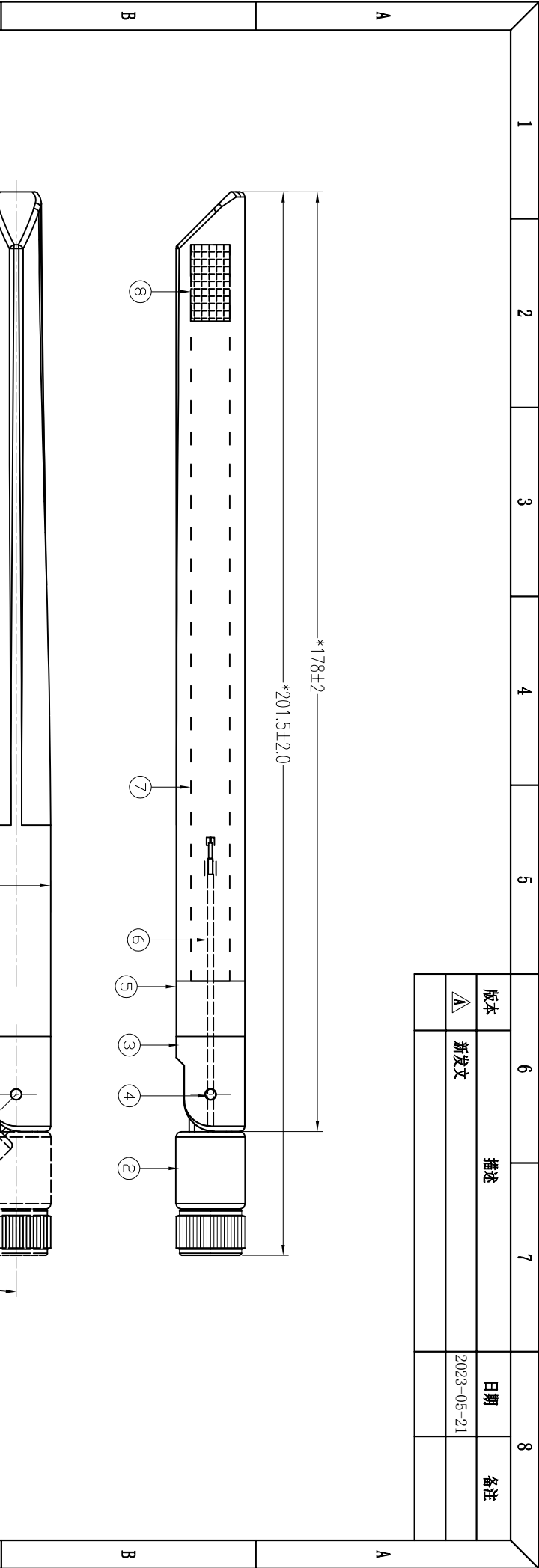
The side view includes dimensions:

- Total length: 178 ± 2
- Segment length: 201.5 ± 2.0

Callouts 1 through 8 identify specific features:

- 1: Grid-like surface
- 2: Rectangular block
- 3: Circular feature
- 4: Semi-circular feature
- 5: Small rectangular feature
- 6: Vertical line
- 7: Horizontal line
- 8: Small circular feature

The cross-sectional view shows the internal structure and a central hole.



- | | | | | | | | | |
|---|---|---|---|---|----|-----|------------|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| | | | | | 版本 | 描述 | 日期 | 备注 |
| | | | | | △A | 新发文 | 2023-05-21 | |
-
- Technical drawing of a mechanical part, likely a bracket or support, showing a side view and a cross-sectional view.
- The side view includes dimensions:
- Total length: 178 ± 2
 - Segment length: 201.5 ± 2.0
- Callouts 1 through 8 identify specific features:
- 1: Grid-like surface (possibly a filter or mesh)
 - 2: Cylindrical base
 - 3: Mounting hole
 - 4: Curved transition
 - 5: Vertical flange
 - 6: Horizontal flange
 - 7: Central slot
 - 8: Top surface
- The cross-sectional view shows the internal structure and a central hole.

1	2	3	4	5	6	7	8	
					版本	描述	日期	备注
					△A	新发文	2023-05-21	

Technical drawing of a mechanical part, likely a bracket or support, showing a side view and a cross-sectional view.

The side view includes dimensions:

- Total length: 178 ± 2
- Central section length: 201.5 ± 2.0

Callouts 1 through 8 identify specific features:

- Grid-like surface
- Cylindrical base
- Mounting hole
- Fillet
- Vertical edge
- Horizontal edge
- Vertical edge
- Small circular feature

The cross-sectional view shows the internal structure and a central hole.

测试设备 (Test Equipment & Conditions):

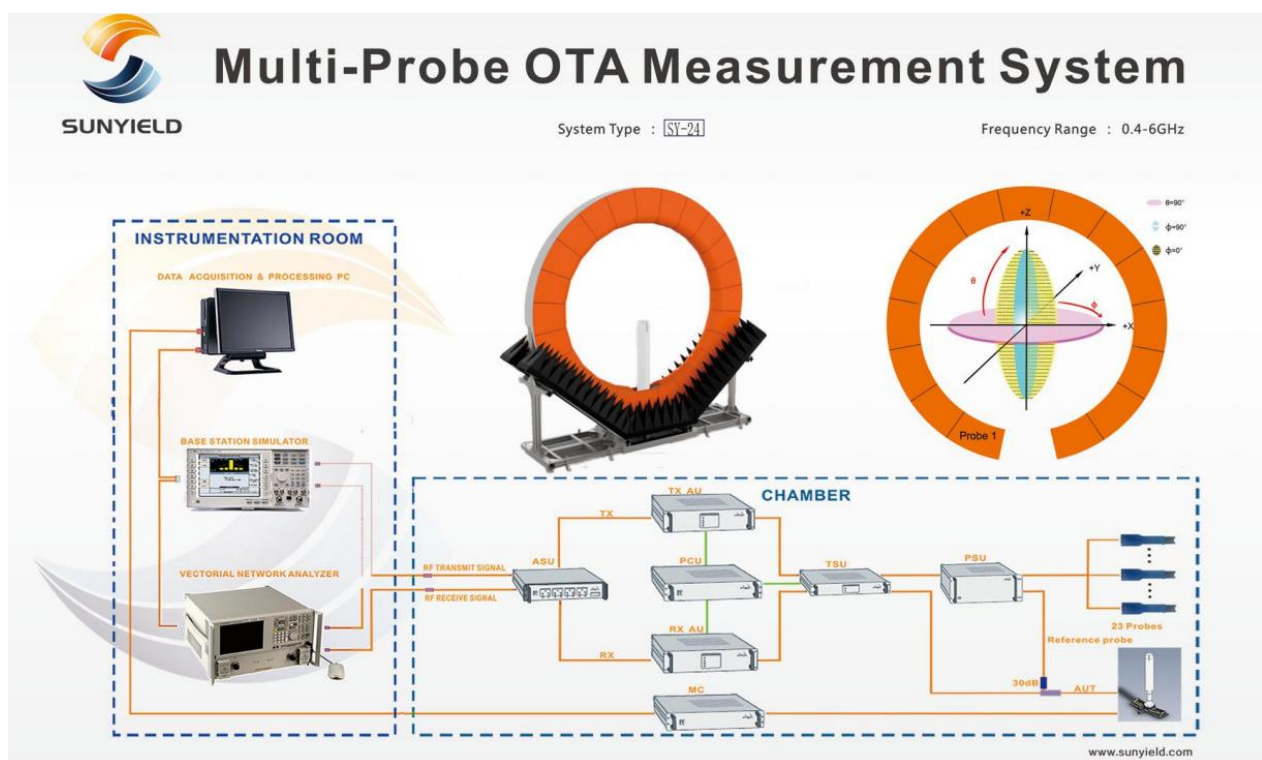
1. 网络分析仪 NetWork Analyzers:

Keysight E5071C

2. 综合测试仪 Comprehensive tester:

CMW500 、 MT8000A、 MT8862A

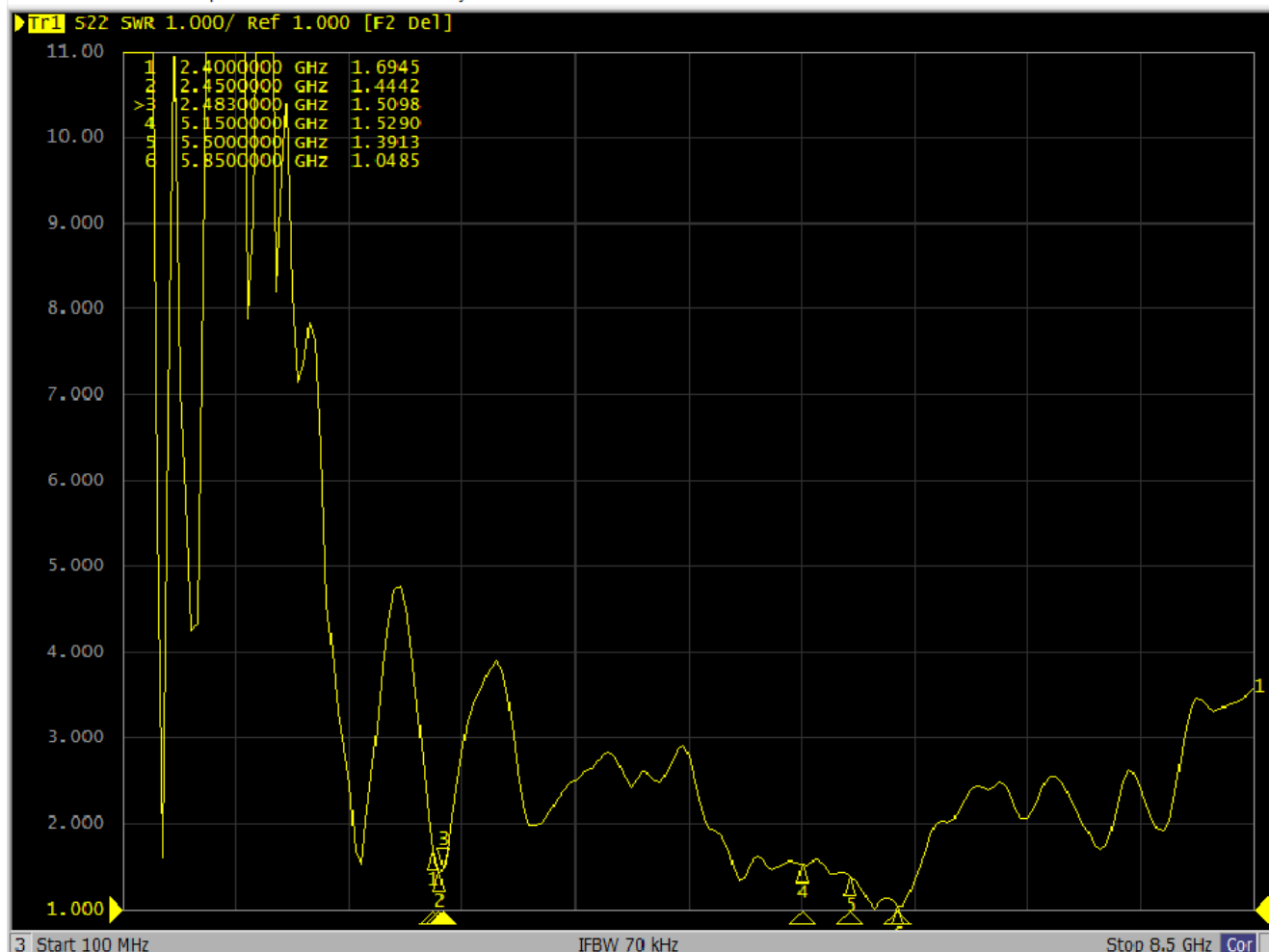
3. 3D 暗室测试系统 3D Chamber Test System:



天线阻抗 (Antenna Impedance) : S11

E5071C Network Analyzer

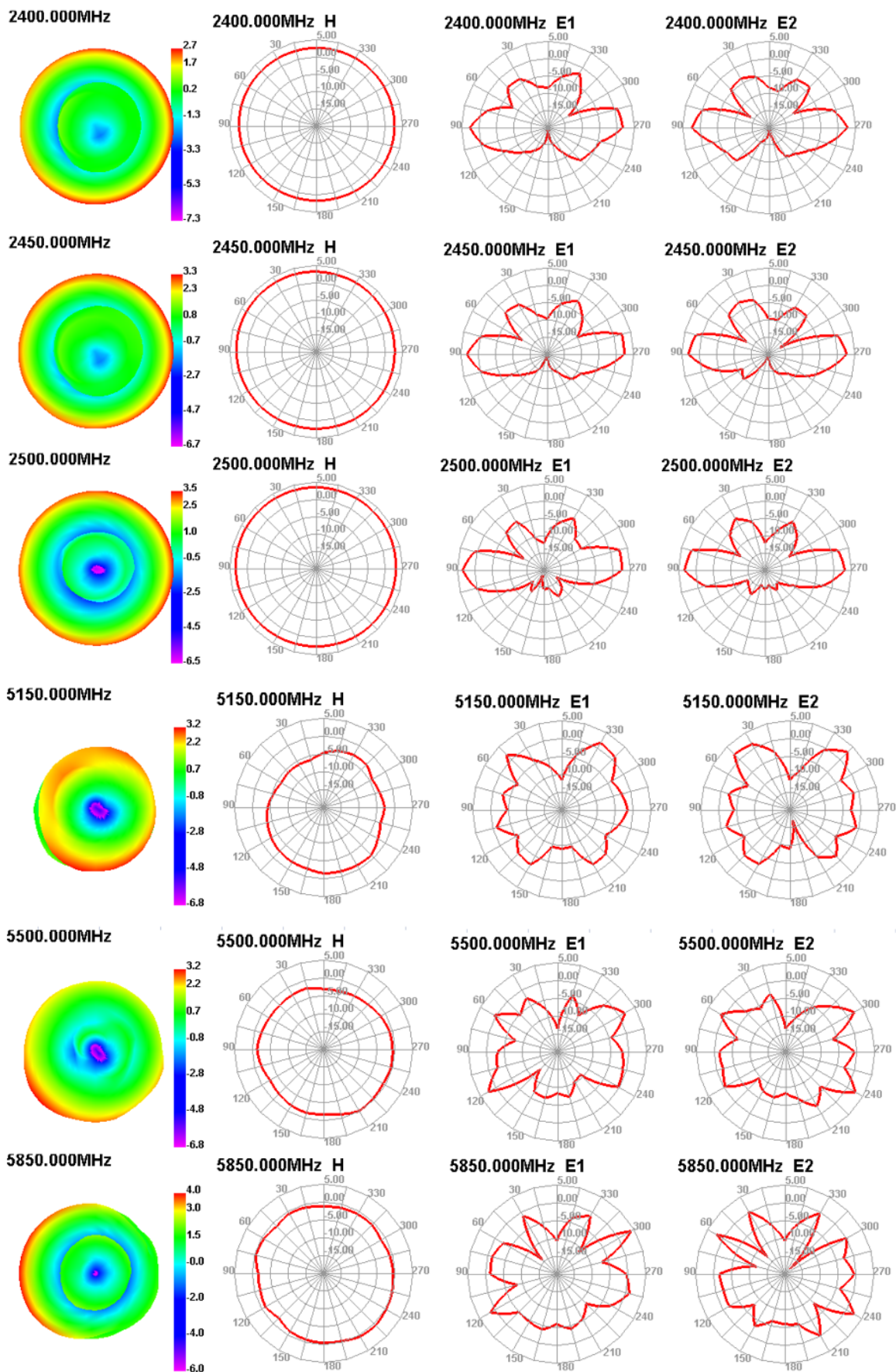
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State



效率&增益 (Efficiency & Gain) :

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	64.18	2.66	5150	62.01	3.23
2410	63.06	2.94	5200	55.47	3.31
2420	62.02	2.8	5250	56.82	3.24
2430	62.98	2.61	5300	62.14	3.22
2440	61.88	2.84	5350	61.48	3.05
2450	60.13	3.29	5400	61.18	3.54
2460	64.36	3.69	5450	60.91	3.46
2470	65.6	3.83	5500	62.79	3.24
2480	62.63	3.58	5550	62.25	3.33
2490	61.45	3.42	5600	60.65	3.1
2500	63	3.52	5650	56.88	3.45
			5700	57.55	3.53
			5750	59.89	3.75
			5800	61.51	3.29
			5850	62.65	3.99

天线3D&2D方向图 (Antenna 3D & 2D pattern):





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天线装配图片 (Antenna assembly picture):





日期: 2023-05-21

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成品名称：七彩虹-002 黑色外置天线

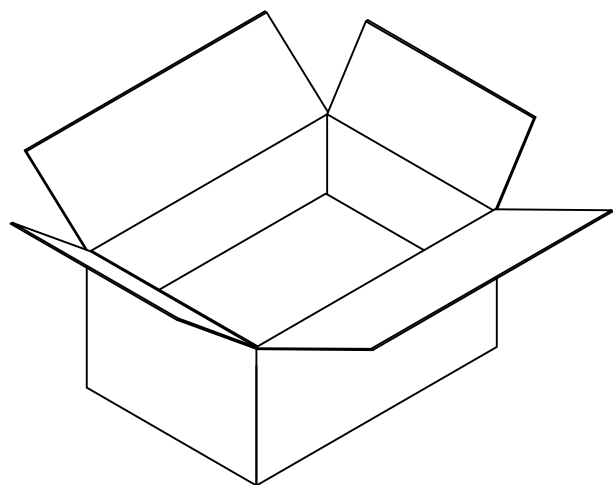
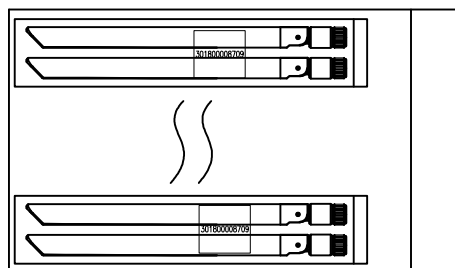
版本：A

客户：智微

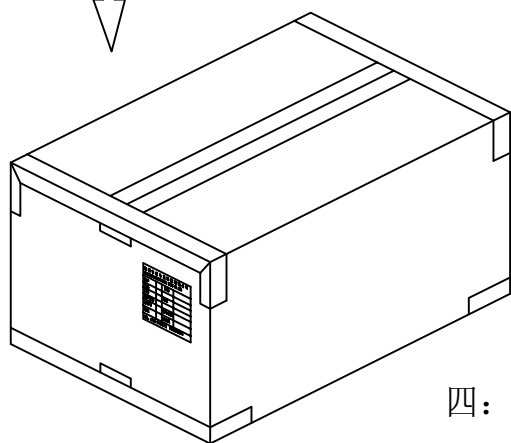
一：成品天线, 每2PCS装入PE封口袋, 并贴好标贴。



二：装大PE封口袋, 每袋装30PCS产品。



三：装箱 (8包/240pcs装一箱)。



四：封箱，外箱贴我司生产标签。

制作：雷双露

审核：