

**Sample sending antenna of
Dong Guan Han Yi Electronics Co., Ltd**

Letter of Recognition

Hanyi Material No: 5G-95mm-4.4mm-Antenna Buckle

Specification Description: 5G Copper Tube Antenna, Line Length

L:95mm

Factory Seal:

| Write | Examine | Approval |
|-------|---------|----------|
| | | |

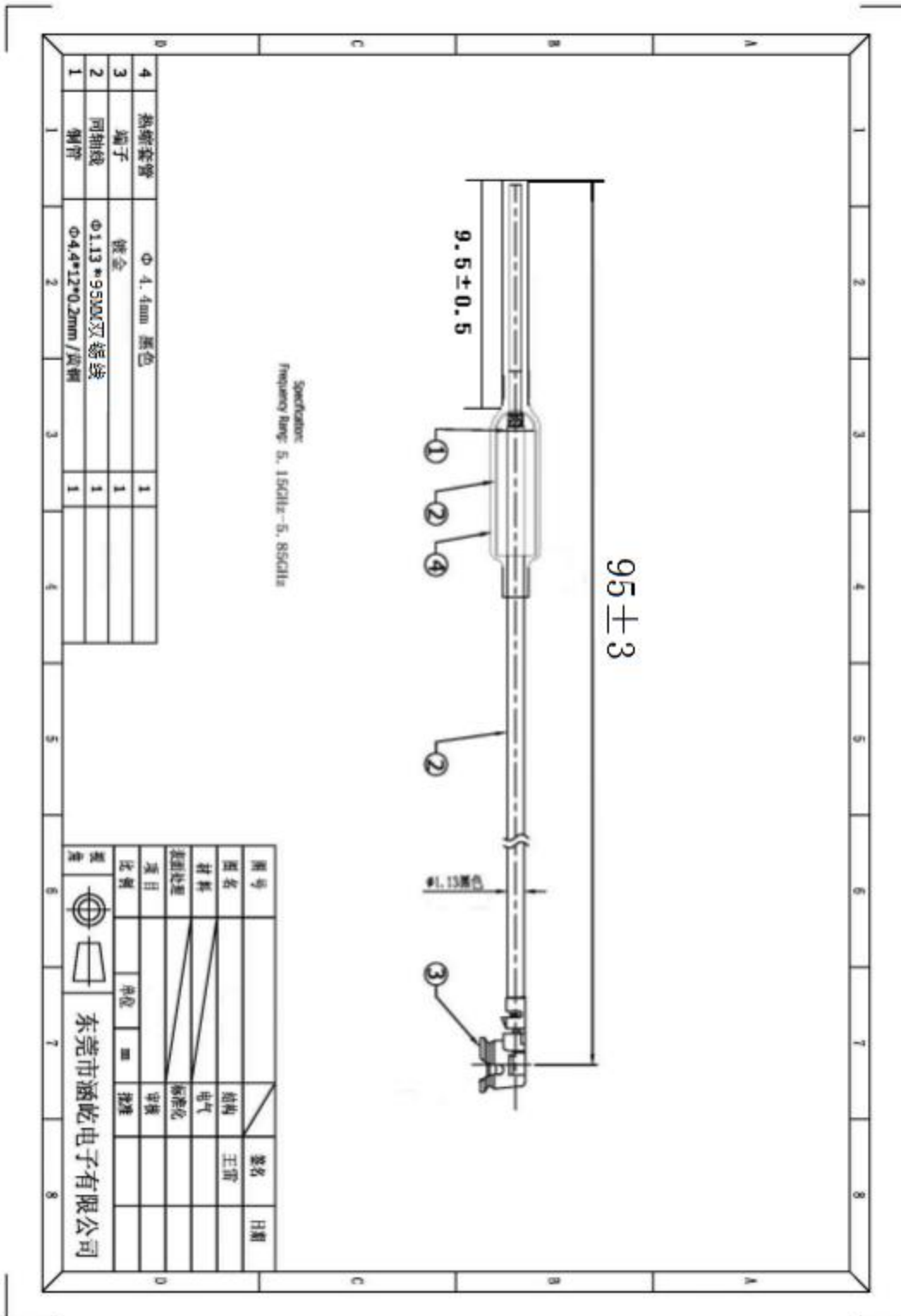
Customer Acknowledgement (signature):

| Check | Examine | Approval |
|-------|---------|----------|
| | | |

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3、Product Picture

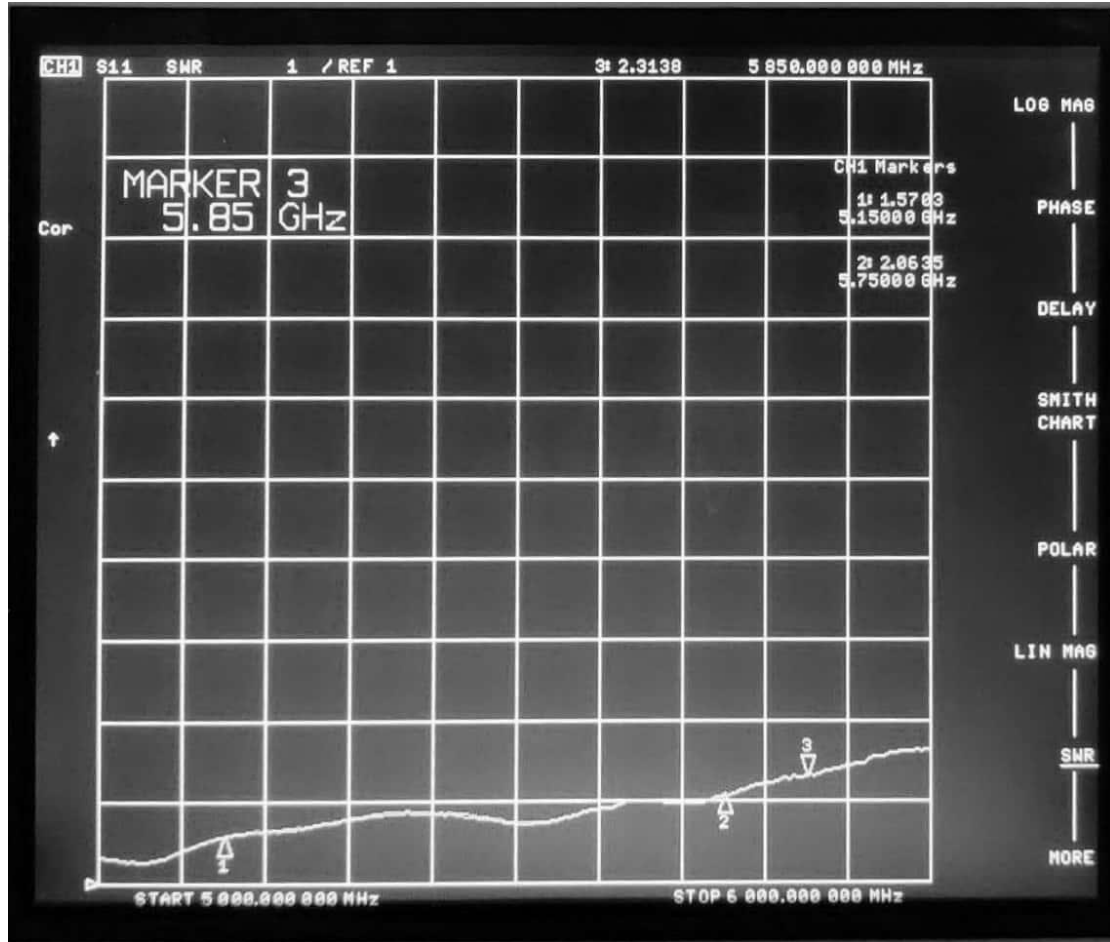


4、Specification

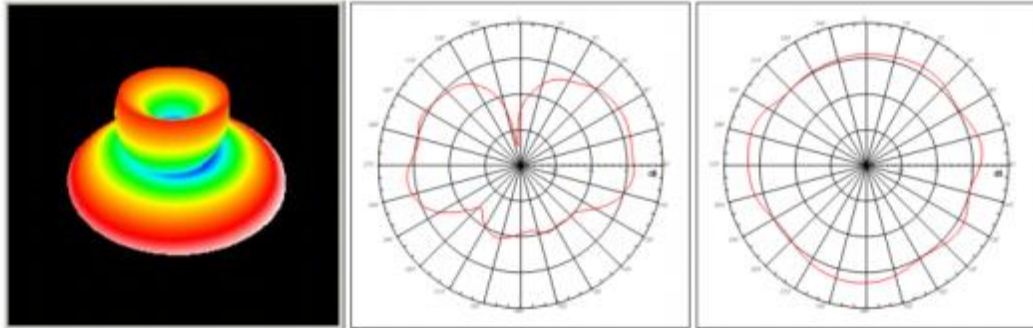
| Parameter | |
|-----------------------|---------------------------|
| Frequency | 5015–5800MHz |
| Impedance | 50 Ω |
| VSWR | ≤2.5 |
| Connector | First generation terminal |
| Mechanical Parameter | |
| Length | 95 ± 3mm |
| Cable | / |
| Salt Spray Test | 24H |
| Environment Parameter | |
| Operation Temperature | -20℃~65℃ |
| Storage Temperature | -30℃~75℃ |

5、Radiation Report

5.1 Standing Wave Diagram



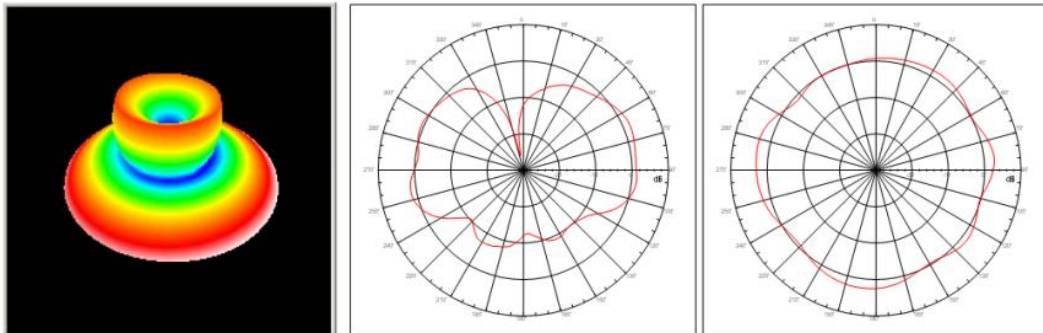
5.2 Directional Diagram



5.15GHz

Gain:2.16dBi

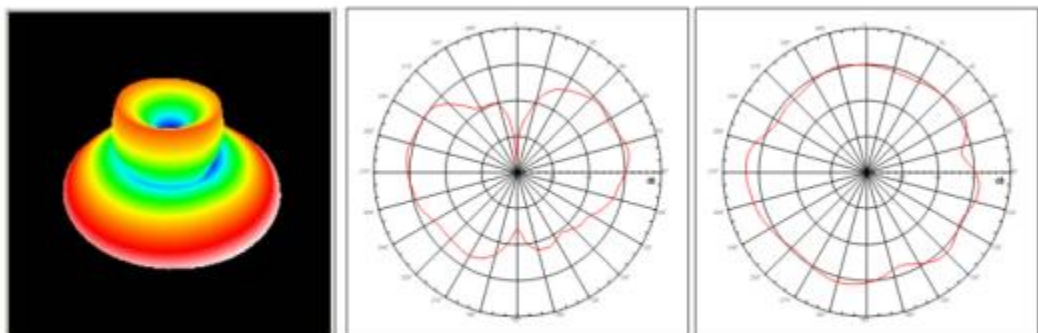
Efficiency:108.0%



5.35GHz

Gain:1.96dBi

Efficiency:95.0%



5.85GHz

Gain:1.88 dBi

Efficiency:94.0%

Reliability Report

6. 1. Constant Temperature and Humidity Test

| | | | | |
|--|--|---|------------------------------|--------|
| Project | Constant Temperature and Humidity Test | | Check ID | |
| Product Name | Copper tube antenna | | quantity:5PCS | |
| Date Of Test: 2020-09-24 | | | Date of Complete: 2020-09-25 | |
| Equipment For Test: 1. Programmable Constant Temperature And Humidity Test Box 2. 8753ES Network Analyser | | | | |
| Condition For Test: 1. Under room temperature, 65% humidity 2. Under 80° , 85%~90% humidity , 2 hour per circulation, total 24 hours | | | | |
| Test Result | | | | |
| Standard: 1、 Shedding-free, Non-cracking, No separation on the surface of metal ;Non-fading, Non-cracking, Non-deforming on the surface of nonmetal 2、 Test result meet the technical requirements | | | | |
| Project | Before Test | After Test | Problem | Result |
| Appearance | shedding-free, Non-cracking, No separation | Non-fading, Non-cracking, Non-deforming | Void | Pass |
| performance | VSWR Pass | VSWR Pass | Void | Pass |
| Result: <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> Unable To Judge | | | | |
| Test: Liu Jie Examine: Li Fei check: ZhangYunchun | | | | |

6. 2. Salt Spray Test

| Project | Salt Spray Test | Test ID | | | | | | | | | | | | | | | | | | |
|---|---------------------|------------------------------|--------|--------|---------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|
| Project Name | Copper tube antenna | quantity: 5PCS | | | | | | | | | | | | | | | | | | |
| Date of test: 2020-09-24 | | Date of complete: 2020-09-25 | | | | | | | | | | | | | | | | | | |
| Test equipment: 1.HL-60-SS Salt Spray Test Tester | | | | | | | | | | | | | | | | | | | | |
| Test Condition: 1.35±2°C in the salt spray test box; 22~30°C in the laboratory 2.PH=6.5/7.2, the concentration of the sodium chloride decade to 50 ±10g/L after 24 hours on per 80 square centimeter | | | | | | | | | | | | | | | | | | | | |
| Test results: Pass | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Number</th> <th>Result</th> <th>Problem</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Pass</td> <td>Void</td> </tr> <tr> <td>2</td> <td>Pass</td> <td>Void</td> </tr> <tr> <td>3</td> <td>Pass</td> <td>Void</td> </tr> <tr> <td>4</td> <td>Pass</td> <td>Void</td> </tr> <tr> <td>5</td> <td>Pass</td> <td>Void</td> </tr> </tbody> </table> | | | Number | Result | Problem | 1 | Pass | Void | 2 | Pass | Void | 3 | Pass | Void | 4 | Pass | Void | 5 | Pass | Void |
| Number | Result | Problem | | | | | | | | | | | | | | | | | | |
| 1 | Pass | Void | | | | | | | | | | | | | | | | | | |
| 2 | Pass | Void | | | | | | | | | | | | | | | | | | |
| 3 | Pass | Void | | | | | | | | | | | | | | | | | | |
| 4 | Pass | Void | | | | | | | | | | | | | | | | | | |
| 5 | Pass | Void | | | | | | | | | | | | | | | | | | |
| Result: <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> Unable To Judge | | | | | | | | | | | | | | | | | | | | |
| Test:Liu Jie Examine: Li Fei check:Zhang Yunchun | | | | | | | | | | | | | | | | | | | | |

7.antenna type: **Copper tube antenna**