

# 承認書

## APPROVAL SHEET

|                         |                                                |
|-------------------------|------------------------------------------------|
| 客戶名稱:<br>CUSTOMER NAME: |                                                |
| 物料編號:<br>PARTNO:        |                                                |
| 產品品名:<br>TYPE NAME:     | WIFI ANTENNA                                   |
| 客戶料號:<br>CUSTOM P/N:    |                                                |
| 規格:<br>SPECIFICATON:    | RF1. 13 -L=200mm other end 1-2-3 dip soldering |

1. 新品承認 (Newly Approved) ☒
2. 材料變更再承認 (Material Approved) ☐
3. 規格變更再承認 (SPEC Approved) ☐

| 製造廠商/Manufacturer                                                                        |               |               | 客戶承認欄/ Customer Approval             |               |                |
|------------------------------------------------------------------------------------------|---------------|---------------|--------------------------------------|---------------|----------------|
| 深圳市睿達永利科技有限公司<br>Shenzhen Ruida Yongli Technology Co., LTD<br><br>承認章:<br>(APPROVAL BY): |               |               | 承認章:<br>(APPROVAL BY):               |               |                |
| 承認日期:<br>(APPROVAL DATE): 2022 年 月 日                                                     |               |               | 承認日期:<br>(APPROVAL DATE): 2022 年 月 日 |               |                |
| 供應商 (SUPPLIER)                                                                           |               |               | 客戶 (CUSTOMER)                        |               |                |
| 品質<br>Q. Dept                                                                            | 工程<br>E. Dept | 業務<br>S. Dept | 經辦<br>TESTED                         | 審核<br>CHECKED | 核准<br>APPROVED |
| Hou zaifeng                                                                              | Wang shihai   | Chen rongmao  |                                      |               |                |
| 日期 (DATE): 2022 年 月 日                                                                    |               |               | 日期 (DATE): 2022 年 月 日                |               |                |

## WIFI ANTENNA

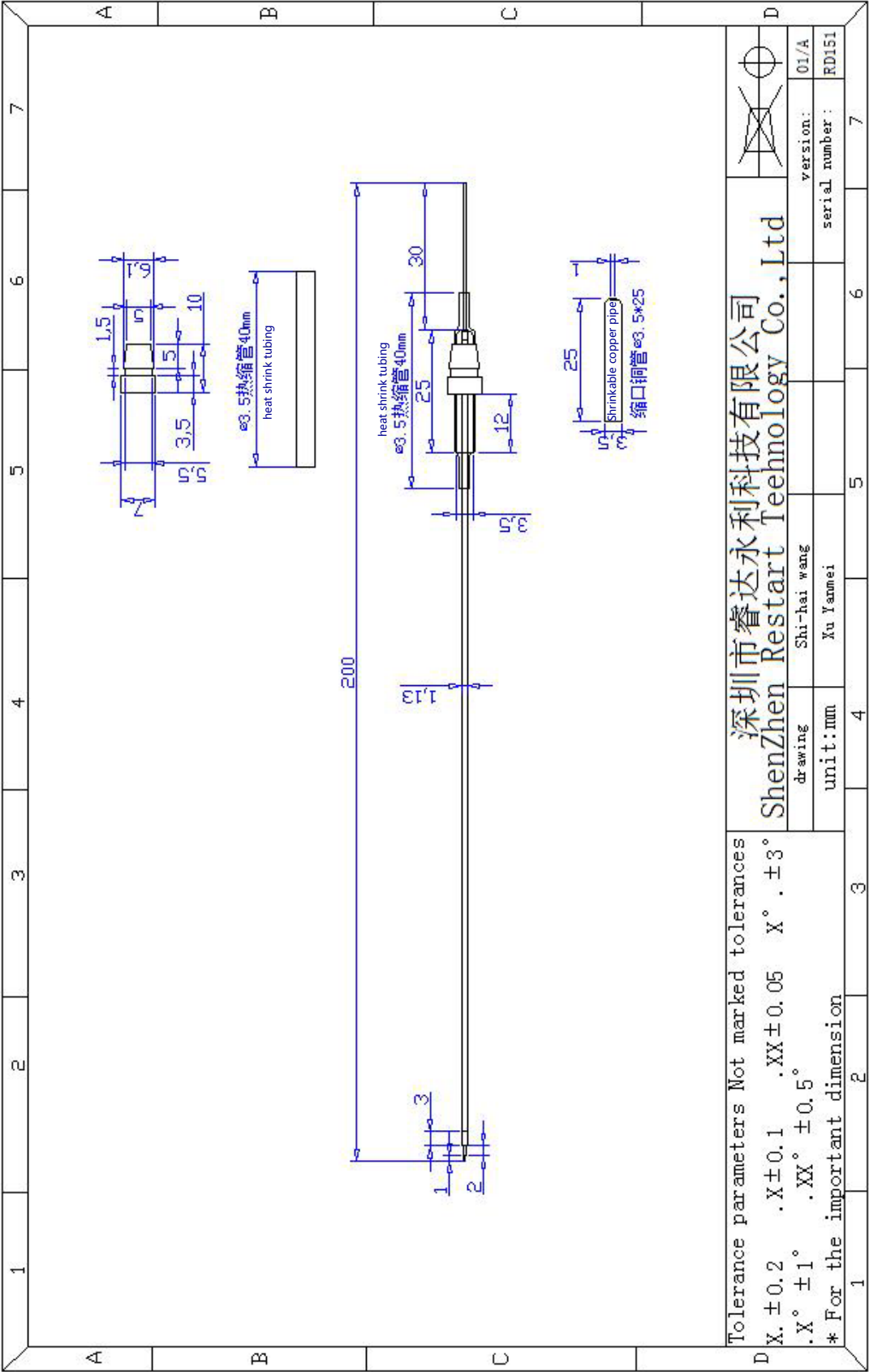
|                                |                                |
|--------------------------------|--------------------------------|
| Model 型号                       | WIFI Antenna                   |
| Frequency Range 频率范围-MHz       | 2400-2500MHz                   |
| Gain 增益-dBi                    | 3                              |
| VSWR 电压驻波比                     | $\leq 1.5$                     |
| Input impedance 输入阻抗- $\Omega$ | 50                             |
| Polarization 极化方式              | Vertical                       |
| Maximum Power 最大功率-W           | 20                             |
| Connector Type 连接方式            | 1-2-3 dip soldering            |
| Cable Length 电缆长度-cm           | 20cm                           |
| Weight 重量-g                    | 5                              |
| Installation 安装方式              | Glue plug to fix the card slot |

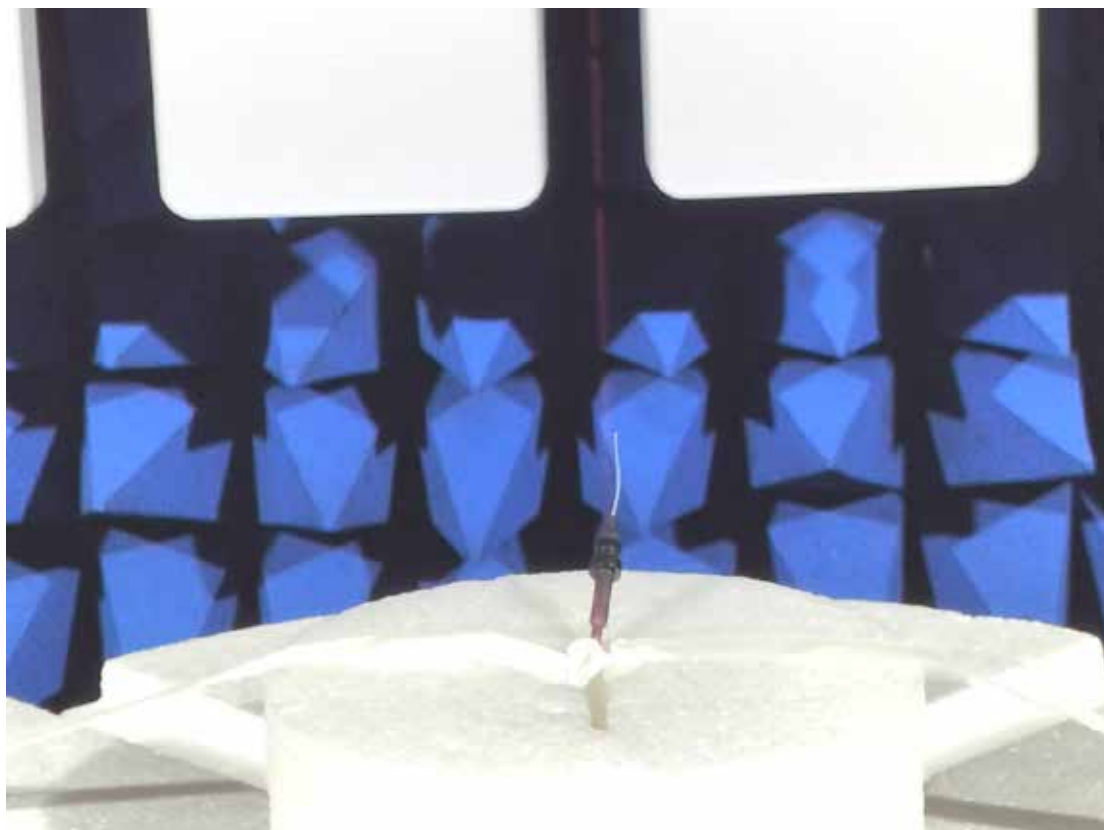
实物图：

Real picture

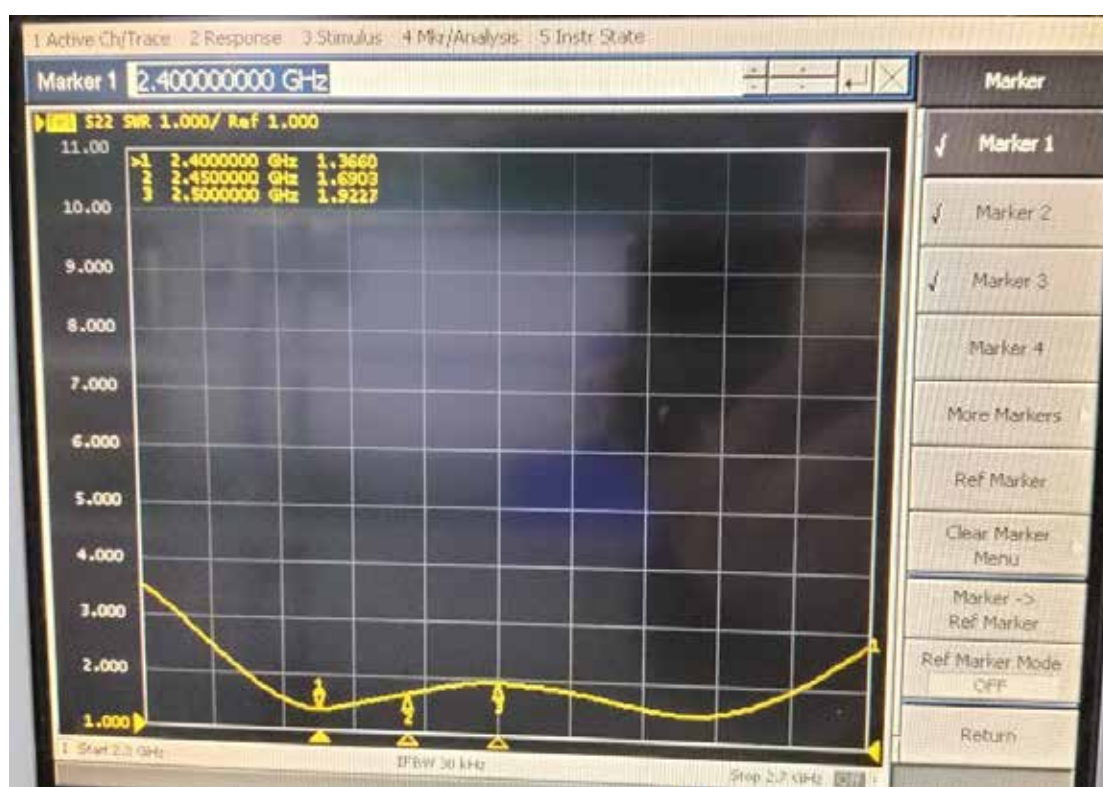


结构图 Structure Picture





测试图 Test pattern



|  | Shenzhen Ruida Yongli Technology Co., LTD<br>深圳市睿达永利科技 |        |        |        |        |        |        |        |        |        |        |
|-----------------------------------------------------------------------------------|--------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency ID                                                                      | 1                                                      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
| Frequency (MHz)                                                                   | 2400.0                                                 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Efficiency (dBi)                                                                  | -0.97                                                  | -1.02  | -1.06  | -0.96  | -0.94  | -0.88  | -0.88  | -0.86  | -0.94  | -0.97  | -1.02  |
| Gain (dBi)                                                                        | 2.90                                                   | 2.89   | 2.80   | 2.79   | 2.70   | 2.59   | 2.55   | 2.57   | 2.51   | 2.44   | 2.22   |
| Efficiency (%)                                                                    | 79.93                                                  | 79.01  | 78.26  | 80.13  | 80.54  | 81.58  | 81.64  | 82.02  | 80.49  | 80.04  | 79.02  |
| Directivity (dB)                                                                  | 3.88                                                   | 3.91   | 3.87   | 3.75   | 3.64   | 3.47   | 3.43   | 3.43   | 3.46   | 3.41   | 3.24   |
| Peak Gain Position (Theta)                                                        | 150.00                                                 | 150.00 | 150.00 | 151.00 | 150.00 | 145.00 | 146.00 | 147.00 | 148.00 | 149.00 | 149.00 |
| Peak Gain Position (Phi)                                                          | 15.00                                                  | 17.00  | 18.00  | 18.00  | 18.00  | 221.00 | 219.00 | 222.00 | 229.00 | 234.00 | 240.00 |
| Efficiency ThetaPol (%)                                                           | 27.13                                                  | 26.29  | 25.58  | 25.56  | 25.25  | 25.18  | 25.30  | 25.73  | 25.48  | 25.17  | 24.35  |
| Efficiency PhiPol (%)                                                             | 52.80                                                  | 52.72  | 52.69  | 54.57  | 55.29  | 56.39  | 56.35  | 56.29  | 55.01  | 54.86  | 54.67  |
| Upper Hem. Efficiency (%)                                                         | 37.67                                                  | 37.13  | 36.21  | 36.97  | 36.73  | 37.29  | 37.37  | 37.88  | 37.45  | 37.58  | 37.33  |
| Lower Hem. Efficiency (%)                                                         | 42.26                                                  | 41.88  | 42.06  | 43.16  | 43.81  | 44.28  | 44.28  | 44.15  | 43.04  | 42.45  | 41.69  |
| T90(H)圆度                                                                          | 17.51                                                  | 19.00  | 16.01  | 17.18  | 13.36  | 12.85  | 13.21  | 14.99  | 16.25  | 16.53  | 16.01  |
| Gain 15deg (dBi)                                                                  |                                                        |        |        |        |        |        |        |        |        |        |        |
| E1(XZ)波瓣宽度                                                                        | 49.00                                                  | 59.00  | 79.00  | 150.00 | 151.00 | 152.00 | 151.00 | 149.00 | 150.00 | 151.00 | 153.00 |
| E1(XZ)前后比                                                                         | 0.00                                                   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.13   | 0.44   | 0.51   | 0.34   | 0.04   |
| E2(YZ)波瓣宽度                                                                        | 46.00                                                  | 41.00  | 38.00  | 37.00  | 39.00  | 41.00  | 43.00  | 44.00  | 44.00  | 43.00  | 43.00  |
| E2(YZ)前后比                                                                         | 0.44                                                   | 0.76   | 0.79   | 0.65   | 0.46   | 0.31   | 0.19   | 0.11   | 0.06   | 0.01   | 0.00   |
| 最大增益处轴比(P)                                                                        | 1.50                                                   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   |
| 仰角10度最差(大)轴比(P)                                                                   | 1.50                                                   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   | 1.50   |
| Hc(XY)波瓣宽度                                                                        | 88.00                                                  | 89.00  | 70.00  | 68.00  | 69.00  | 74.00  | 80.00  | 82.00  | 83.00  | 85.00  | 90.00  |
| Hc(XY)前后比                                                                         | 3.49                                                   | 3.52   | 3.43   | 3.49   | 3.27   | 3.13   | 3.22   | 3.49   | 3.95   | 4.24   | 4.12   |

