

深圳市千目通讯科技有限公司

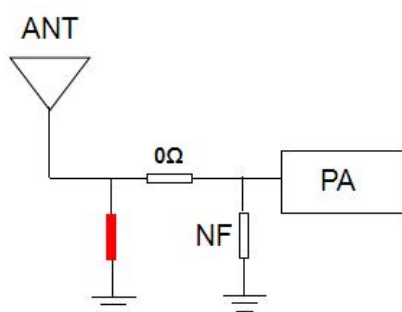
Shenzhen Qianmu Communication Technology Co.,Ltd.

天线承认书

| | | | |
|------|-------------|--|-----------|
| 适用型号 | ZB32 | | |
| 客户 | 深圳市佩城科技有限公司 | | |
| 规格描述 | | | |
| | 产品内容 | 规格 | 客户物料编码 |
| 规格描述 | WIFI 天线 | FPC/黑色/字符 QM-ZB32-WIFI-V1.0+三代端子 0.81*72mm+导电布+垫高泡棉 | ZB320G001 |
| 更改履历 | | | |
| 序号 | 日期 | 版本 | 更改内容简述 |
| 1 | 2023-05-27 | V1.0 | 新项目 |
| 2 | | | |
| 3 | | | |

| | | | | | |
|--------------|----|----|---|----|----|
| 供应商样品确认 | | | | | |
| 研发 | 结构 | 审核 | 判定 | | |
| | | | PASS <input checked="" type="checkbox"/> FAIL <input type="checkbox"/> | | |
| 客户样品确认 | | | | | |
| 电子 | 结构 | 项目 | 采购 | 品质 | 审核 |
| | | | | | |
| 拒收原因或其它注意事项: | | | | | |

1、匹配电路-WIFI 天线



原始匹配电路未更改

2、有源数据

| | WIFI 2400~2500MHz 802.11b 11Mbps | | |
|---------|----------------------------------|--------|--------|
| Channel | 1 | 6 | 11 |
| TRP | 12.02 | 12.89 | 13.34 |
| TIS | -80.03 | -78.77 | -81.31 |

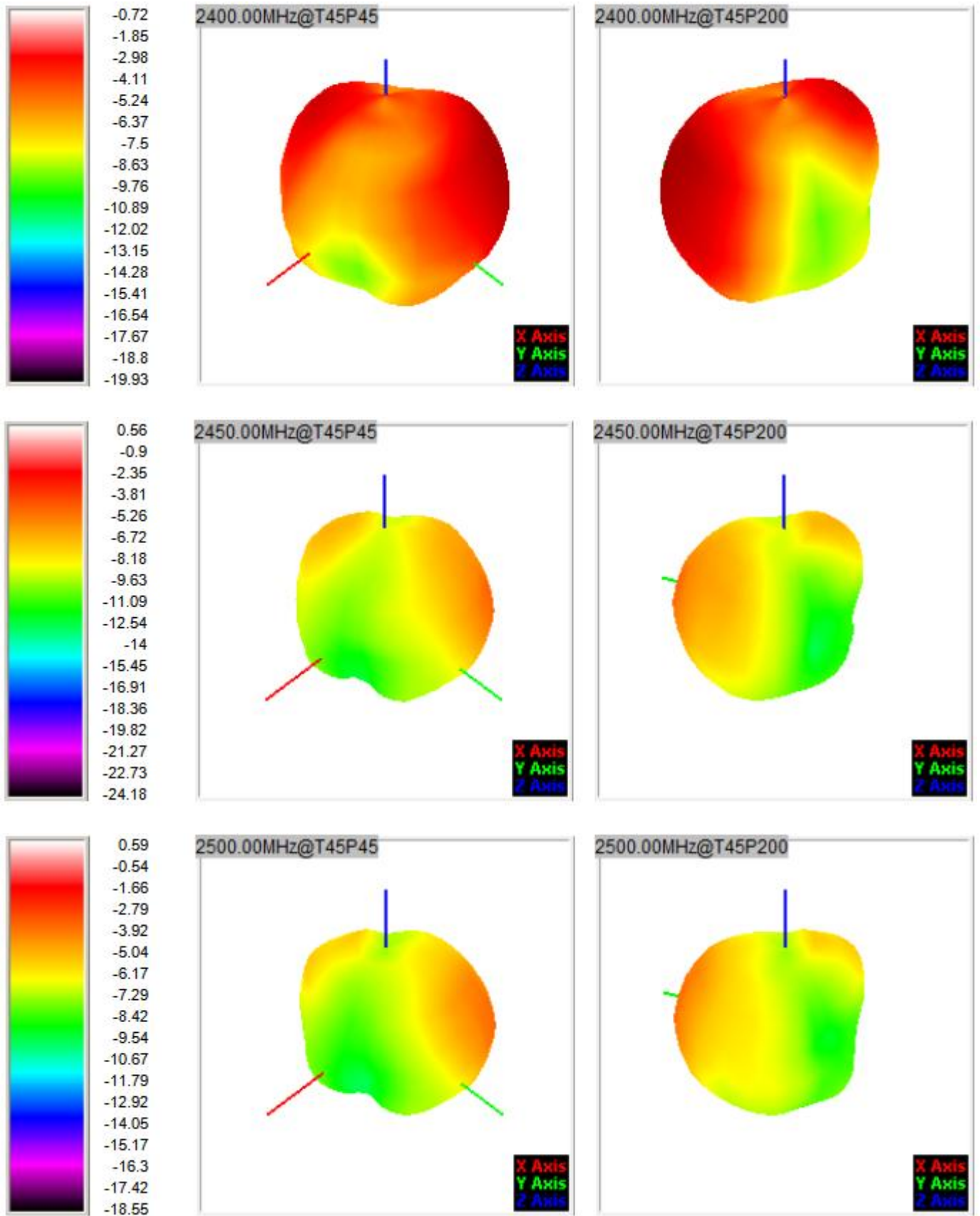
| | WIFI 5000~5800MHz 802.11a 54Mbps | | |
|---------|----------------------------------|--------|--------|
| Channel | 36 | 161 | 165 |
| TRP | 8.02 | 9.79 | 9.73 |
| TIS | -68.28 | -69.18 | -69.02 |

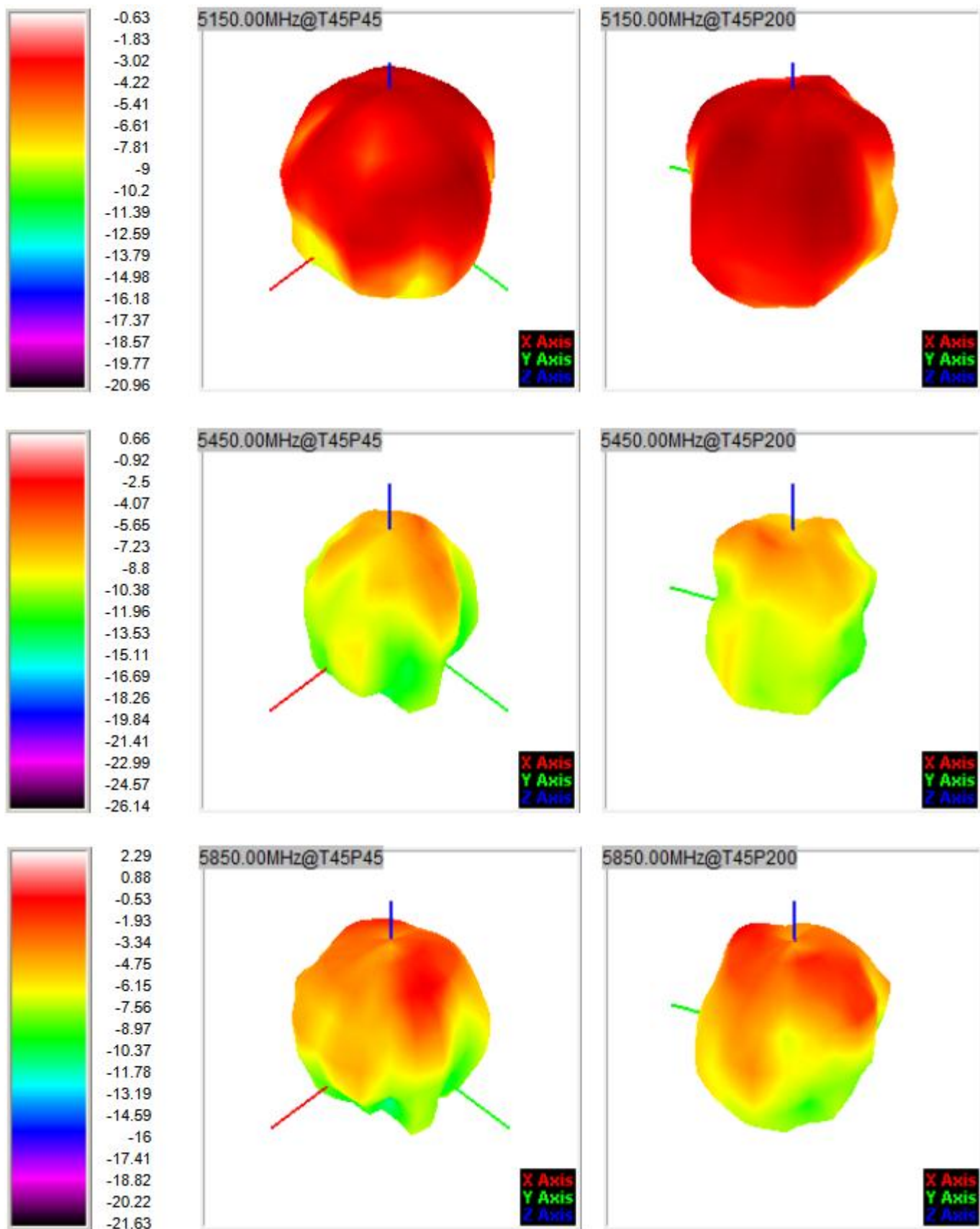
3、天线无源效率增益数据

| FETUKEJI | | | | | | | | | | | |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 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 |
| Point Values | | | | | | | | | | | |
| Ant. Port Input Pwr. (dBm) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tot. Rad. Pwr. (dBm) | -5.80 | -5.72 | -5.50 | -5.24 | -5.14 | -4.90 | -4.94 | -5.20 | -5.18 | -5.04 | -5.08 |
| Peak EIRP (dBm) | -0.72 | -0.51 | -0.19 | 0.12 | 0.24 | 0.56 | 0.62 | 0.38 | 0.43 | 0.60 | 0.59 |
| Directivity (dBi) | 5.08 | 5.21 | 5.31 | 5.35 | 5.38 | 5.46 | 5.56 | 5.58 | 5.61 | 5.63 | 5.67 |
| Efficiency (dB) | -5.80 | -5.72 | -5.50 | -5.24 | -5.14 | -4.90 | -4.94 | -5.20 | -5.18 | -5.04 | -5.08 |
| Efficiency (%) | 26.30 | 26.80 | 28.20 | 29.90 | 30.60 | 32.40 | 32.10 | 30.20 | 30.30 | 31.40 | 31.00 |
| Gain (dBi) | -0.72 | -0.51 | -0.19 | 0.12 | 0.24 | 0.56 | 0.62 | 0.38 | 0.43 | 0.60 | 0.59 |
| NHPRP ±Pi/4 (dBm) | -7.27 | -7.21 | -7.01 | -6.76 | -6.67 | -6.43 | -6.45 | -6.69 | -6.65 | -6.48 | -6.50 |
| NHPRP ±Pi/6 (dBm) | -8.84 | -8.77 | -8.56 | -8.30 | -8.20 | -7.96 | -7.97 | -8.22 | -8.19 | -8.02 | -8.03 |
| NHPRP ±Pi/8 (dBm) | -10.05 | -9.98 | -9.76 | -9.49 | -9.39 | -9.13 | -9.13 | -9.37 | -9.35 | -9.18 | -9.19 |
| Upper Hem. PRP (dBm) | -7.55 | -7.47 | -7.21 | -6.94 | -6.84 | -6.58 | -6.65 | -6.93 | -6.91 | -6.76 | -6.81 |
| Lower Hem. PRP (dBm) | -10.60 | -10.53 | -10.36 | -10.13 | -10.04 | -9.84 | -9.81 | -10.04 | -10.02 | -9.88 | -9.92 |
| Upper Hem. PRP (%) | 17.57 | 17.93 | 18.99 | 20.24 | 20.69 | 21.99 | 21.65 | 20.29 | 20.36 | 21.08 | 20.85 |
| Lower Hem. PRP (%) | 8.71 | 8.84 | 9.21 | 9.70 | 9.90 | 10.37 | 10.44 | 9.91 | 9.96 | 10.29 | 10.18 |

| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 5150.0 | 5200.0 | 5250.0 | 5300.0 | 5350.0 | 5400.0 | 5450.0 | 5500.0 | 5550.0 | 5600.0 | 5650.0 | 5700.0 | 5750.0 | 5800.0 | 5850.0 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| -5.31 | -5.17 | -5.40 | -5.91 | -5.82 | -5.23 | -5.70 | -6.51 | -6.48 | -5.44 | -5.09 | -5.31 | -5.00 | -4.29 | -3.90 |
| -0.63 | 0.20 | 0.20 | 0.07 | 0.21 | 1.14 | 0.66 | 0.05 | 0.22 | 1.02 | 1.43 | 1.28 | 1.72 | 2.51 | 2.29 |
| 4.68 | 5.37 | 5.60 | 5.98 | 6.03 | 6.37 | 6.35 | 6.56 | 6.70 | 6.46 | 6.52 | 6.59 | 6.72 | 6.80 | 6.19 |
| -5.31 | -5.17 | -5.40 | -5.91 | -5.82 | -5.23 | -5.70 | -6.51 | -6.48 | -5.44 | -5.09 | -5.31 | -5.00 | -4.29 | -3.90 |
| 29.40 | 30.40 | 28.80 | 25.60 | 26.20 | 30.00 | 26.90 | 22.30 | 22.50 | 28.60 | 31.00 | 29.40 | 31.70 | 37.30 | 40.70 |
| -0.63 | 0.20 | 0.20 | 0.07 | 0.21 | 1.14 | 0.66 | 0.05 | 0.22 | 1.02 | 1.43 | 1.28 | 1.72 | 2.51 | 2.29 |
| -7.19 | -7.13 | -7.55 | -8.09 | -8.13 | -7.63 | -7.95 | -8.90 | -8.95 | -7.76 | -7.47 | -7.75 | -7.37 | -6.75 | -6.30 |
| -8.97 | -9.01 | -9.36 | -9.81 | -9.96 | -9.50 | -9.67 | -10.70 | -10.79 | -9.55 | -9.39 | -9.66 | -9.23 | -8.69 | -8.25 |
| -10.28 | -10.38 | -10.66 | -11.01 | -11.24 | -10.83 | -10.90 | -12.04 | -12.19 | -10.92 | -10.89 | -11.09 | -10.59 | -10.15 | -9.73 |
| -6.28 | -6.12 | -6.44 | -7.02 | -6.88 | -6.32 | -6.89 | -7.63 | -7.57 | -6.59 | -6.11 | -6.36 | -6.06 | -5.24 | -4.87 |
| -12.32 | -12.26 | -12.13 | -12.38 | -12.48 | -11.77 | -11.90 | -12.96 | -13.01 | -11.75 | -11.84 | -12.01 | -11.63 | -11.32 | -10.90 |
| 23.56 | 24.44 | 22.71 | 19.85 | 20.51 | 23.33 | 20.48 | 17.27 | 17.48 | 21.92 | 24.47 | 23.13 | 24.78 | 29.90 | 32.56 |
| 5.86 | 5.95 | 6.13 | 5.78 | 5.65 | 6.65 | 6.45 | 5.06 | 5.00 | 6.68 | 6.54 | 6.30 | 6.87 | 7.39 | 8.13 |

4、天线方向图和苹果图

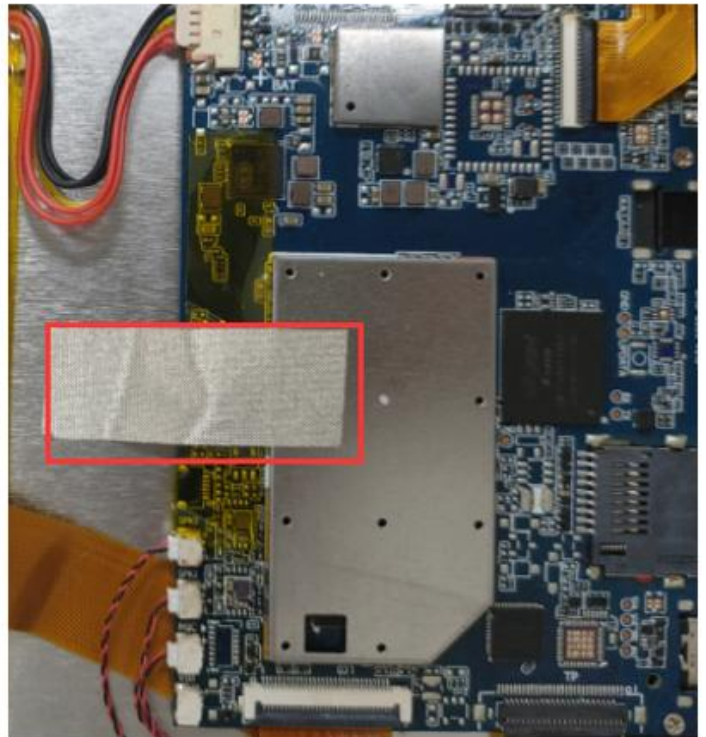




5、环境处理



此三处贴上导电绒与屏接地



此处贴上导电布与屏接地



1.天线漏铜区贴导电布接地
天线用不导电泡棉垫高

2.摄像头排线贴导电布屏蔽

6、WiFi 天线实测



7、工程图

