

# Antena Test Report



专业的4G/3G/GPS/WIFI等天线方案设计及供应商

客户名称：中科微电

项目名称：P1-美版

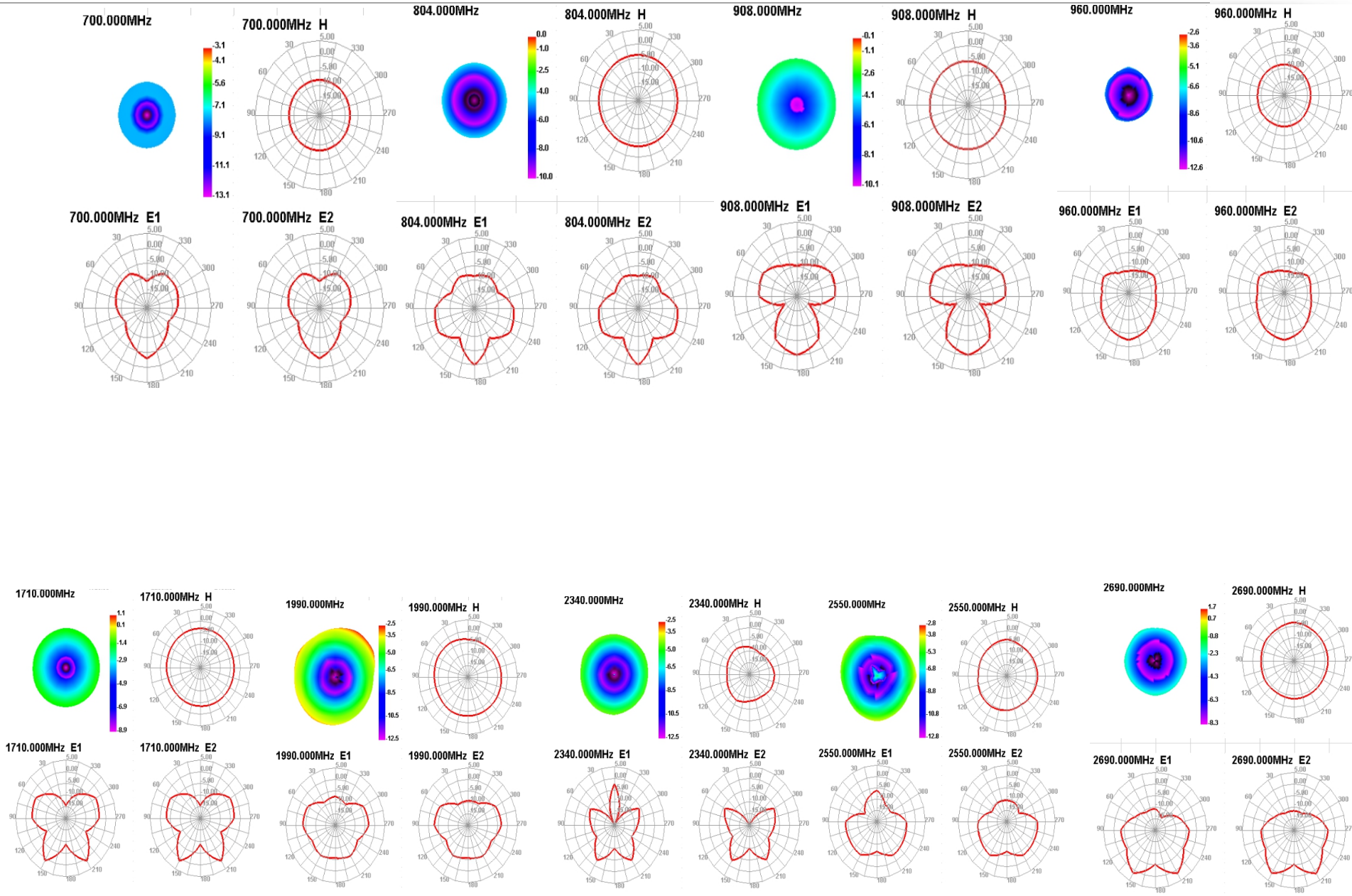
频段：GSM(850/900/1800/1900);WCDMA(W2/W5);LTE(B2/4/5/12/13/66)

版本：A

制作日期：2023-1-5

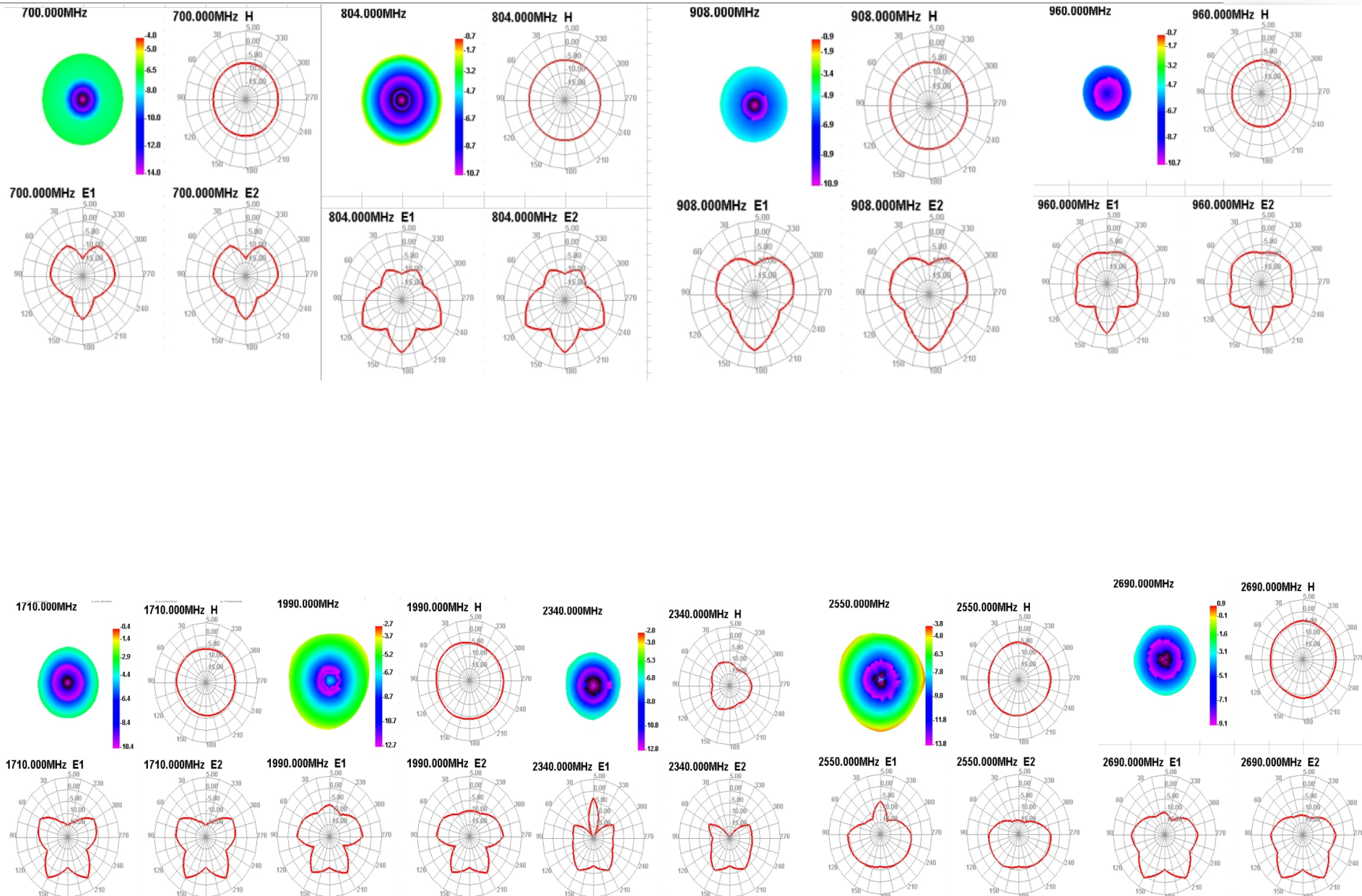
# 增益&效率-4G主天线

| Frequency (MHz) | Efficiency (%) | Peak GAIN (dBi) |
|-----------------|----------------|-----------------|
| 700             | 17.11          | -3.1            |
| 800             | 25.08          | 0               |
| 900             | 22.96          | -0.09           |
| 960             | 18.54          | -2.61           |
| 1710            | 40.18          | 1.1             |
| 1990            | 39.68          | 0.31            |
| 2130            | 43.44          | -1.51           |
| 2340            | 41.77          | -2.46           |
| 2550            | 42.01          | 0.82            |
| 2690            | 41.23          | 1.7             |



# 增益&效率-分集天线

| Frequency (MHz) | Efficiency (%) | Peak GAIN (dBi) |
|-----------------|----------------|-----------------|
| 700             | 16.43          | -4              |
| 800             | 22.38          | -0.74           |
| 900             | 23.73          | -0.86           |
| 960             | 15.73          | -0.69           |
| 1710            | 28.95          | -0.42           |
| 1990            | 30.64          | -2.65           |
| 2130            | 28.07          | -3.43           |
| 2340            | 20.89          | -2.77           |
| 2550            | 28.49          | -3.84           |
| 2690            | 35.94          | 0.87            |



# 2G/3G Free Space 3D Active data

| BAND |          | GSM850  |       |         | EGSM900 |       |        |
|------|----------|---------|-------|---------|---------|-------|--------|
| 3D   | Channel  | 128     | 190   | 251     | 1       | 60    | 124    |
|      | TRP(dbm) | 27.22   | 27.65 | 27.18   | 26.52   | 25.63 | 25.15  |
|      | TIS(dbm) | -103.54 |       | -103.73 | -102.85 |       | -101.7 |

| BAND |          | DCS1800 |       |         | PCS1900 |       |         |
|------|----------|---------|-------|---------|---------|-------|---------|
| 3D   | Channel  | 512     | 698   | 885     | 512     | 661   | 810     |
|      | TRP(dbm) | 25.17   | 25.53 | 25.62   | 25.41   | 25.29 | 25.33   |
|      | TIS(dbm) | -102.57 |       | -103.21 | -102.08 |       | -102.06 |

| BAND |          | WCDMA B2 |       |         | WCDMA B5 |       |         |
|------|----------|----------|-------|---------|----------|-------|---------|
| 3D   | Channel  | 9662     | 9800  | 9938    | 4357     | 4408  | 4458    |
|      | TRP(dbm) | 19.17    | 18.84 | 18.73   | 17.25    | 17.36 | 17.09   |
|      | TIS(dbm) | -106.41  |       | -105.15 | -103.55  |       | -102.43 |

# LTE Free Space 3D Active data-

| BAND |          | TDD-LTE B2 |       |        | FDD-LTE B4 |       |        |
|------|----------|------------|-------|--------|------------|-------|--------|
| 3D   | Channel  | 18650      | 19000 | 18550  | 20000      | 20175 | 20350  |
|      | TRP(dbm) | 19.23      | 18.77 | 18.64  | 18.63      | 18.59 | 18.43  |
|      | TIS(dbm) | -93.56     |       | -92.81 | -92.42     |       | -93.03 |

| BAND |          | FDD-LTE B5 |       |        | FDD-LTE 12 |       |        |
|------|----------|------------|-------|--------|------------|-------|--------|
| 3D   | Channel  | 20450      | 20525 | 20600  | 23060      | 23095 | 23130  |
|      | TRP(dbm) | 17.75      | 17.44 | 17.13  | 15.32      | 15.73 | 16.08  |
|      | TIS(dbm) |            |       | -92.17 | -93.45     |       | -93.57 |

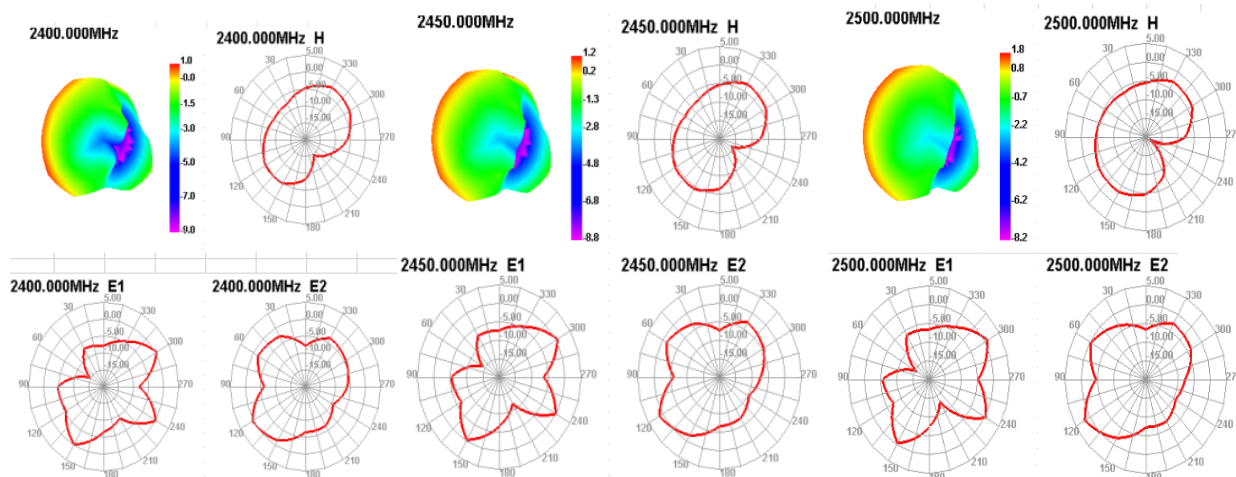
| BAND |          | FDD-LTE B13 |        |  | FDD-LTE B66 |        |        |
|------|----------|-------------|--------|--|-------------|--------|--------|
| 3D   | Channel  |             | 23230  |  | 24200       | 224300 | 24400  |
|      | TRP(dbm) |             | 16.06  |  | 18.77       | 18.64  | 18.79  |
|      | TIS(dbm) |             | -93.11 |  | -92.14      |        | -92.08 |



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## 3. Gain & Efficiency

| Frequency (MHz) | BT | Efficiency (%) | Peak GAIN (dBi) |
|-----------------|----|----------------|-----------------|
| 2400            |    | 41.64          | 1.03            |
| 2450            |    | 41.27          | 1.18            |
| 2500            |    | 42.56          | 1.76            |

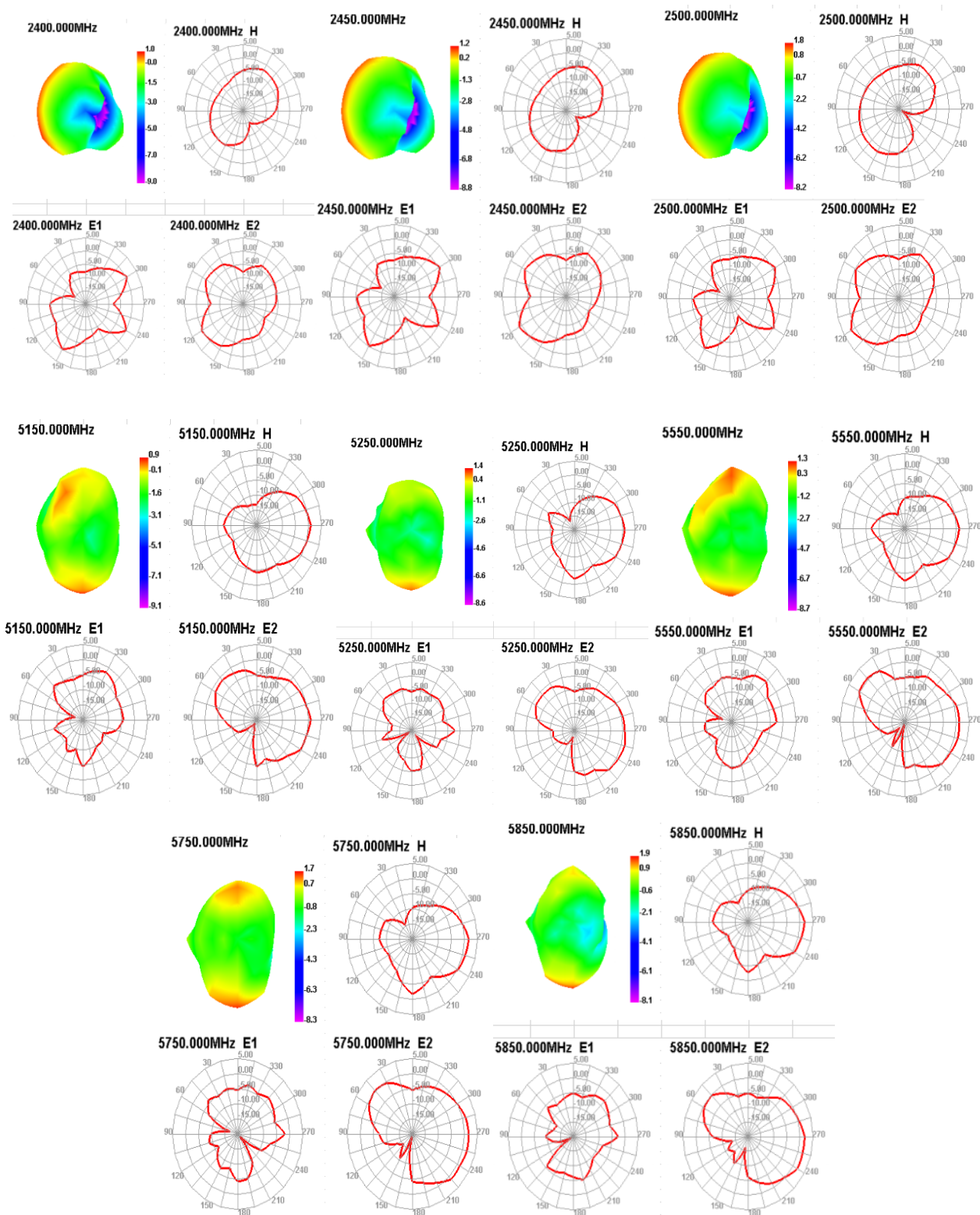


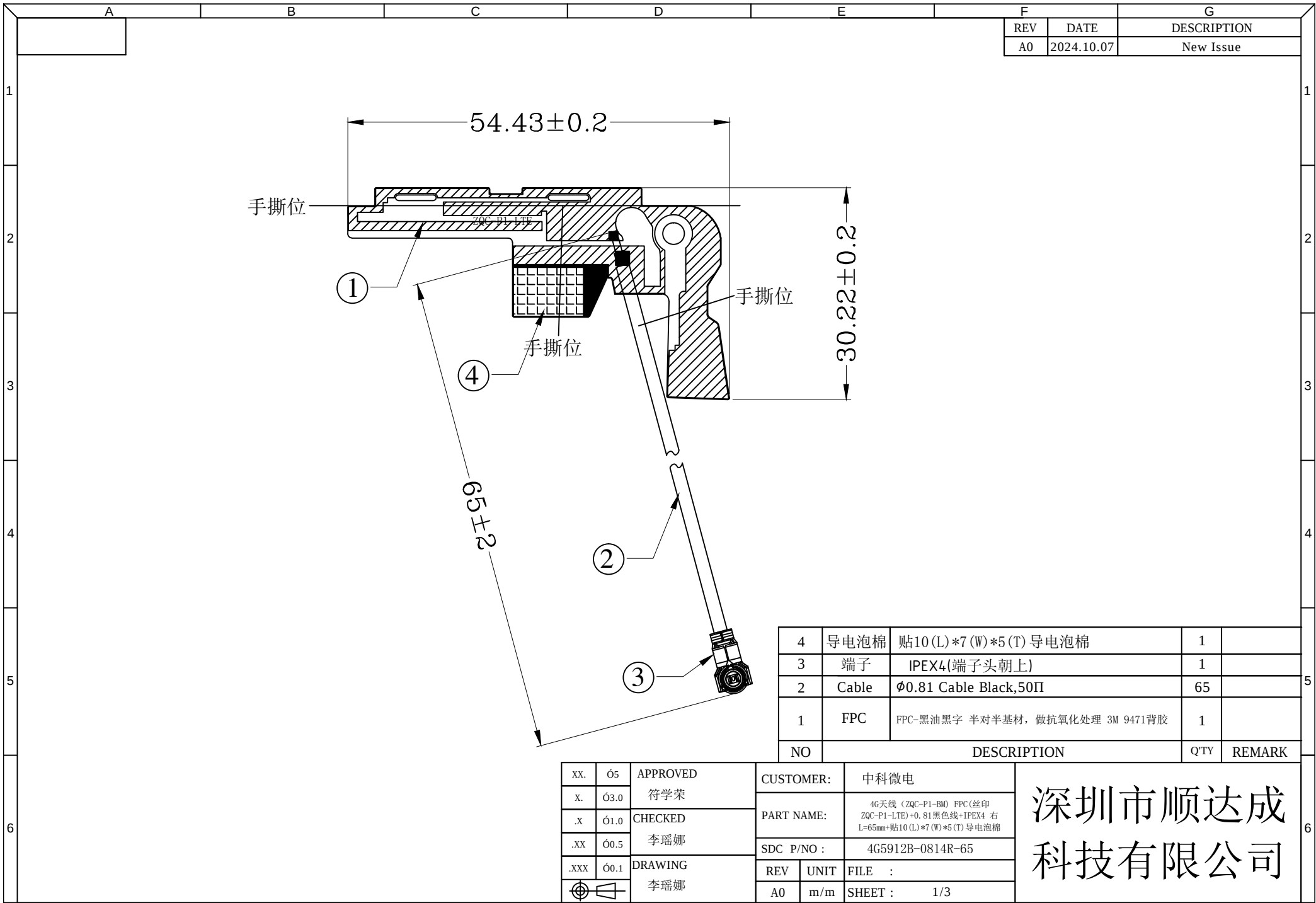
| Frequency (MHz) | WiFi | Efficiency (%) | Peak GAIN (dBi) |
|-----------------|------|----------------|-----------------|
| 2400            |      | 41.64          | 1.03            |
| 2450            |      | 41.27          | 1.18            |
| 2500            |      | 42.56          | 1.76            |
| 5150            |      | 38.27          | 0.93            |
| 5250            |      | 41.63          | 1.36            |
| 5350            |      | 40.35          | 1.09            |
| 5550            |      | 42.63          | 1.26            |
| 5750            |      | 41.19          | 1.67            |
| 5850            |      | 40.76          | 1.85            |

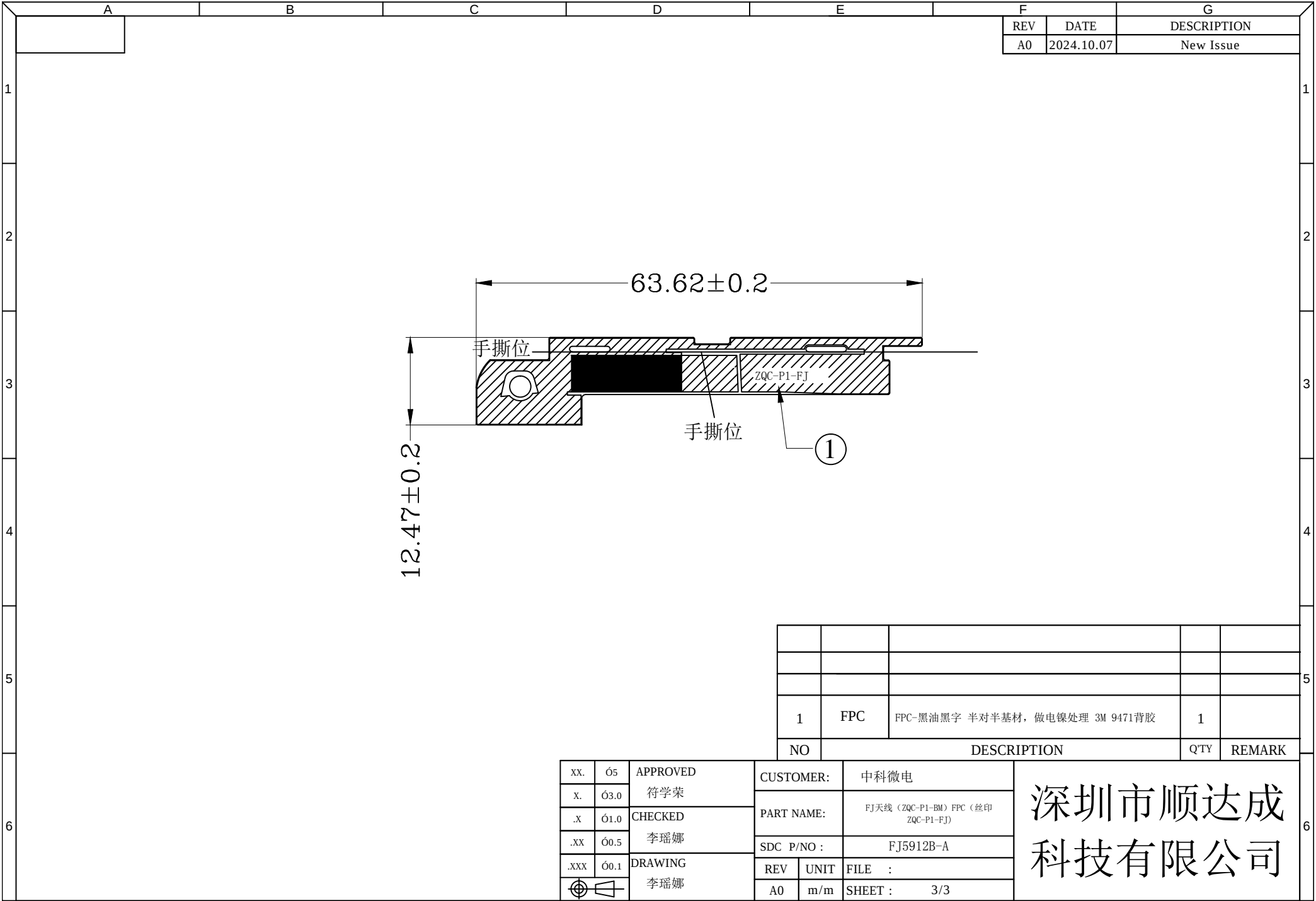


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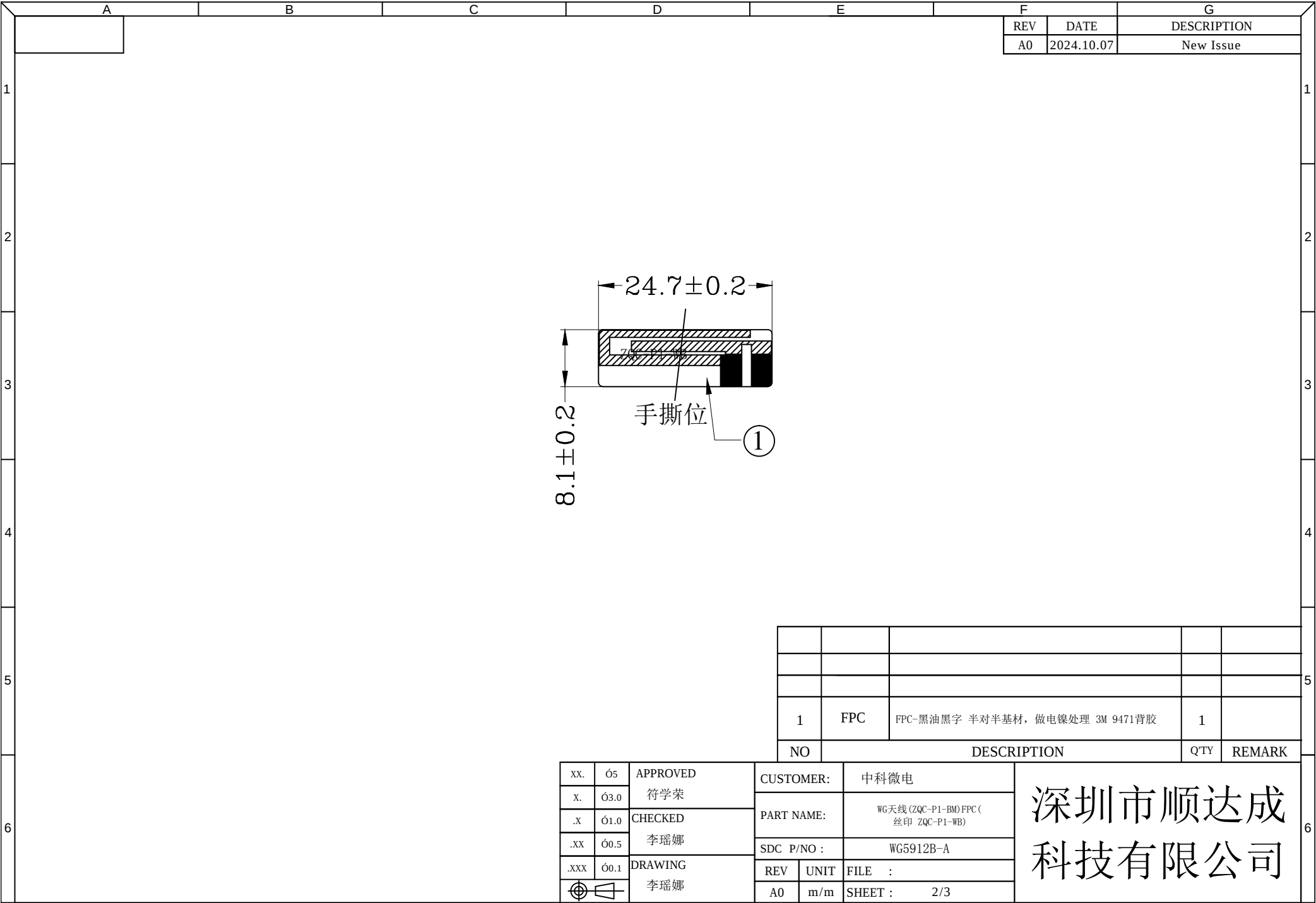
| F   |            | G           |
|-----|------------|-------------|
| REV | DATE       | DESCRIPTION |
| A0  | 2024.10.07 | New Issue   |

| 1  | FPC         | FPC-黑油黑字 半对半基材, 做电镍处理 3M 9471背胶 | 1    |        |
|----|-------------|---------------------------------|------|--------|
| NO | DESCRIPTION |                                 | Q'TY | REMARK |

|      |      |                 |
|------|------|-----------------|
| XX.  | Ó5   | APPROVED<br>符学荣 |
| X.   | Ó3.0 |                 |
| .X   | Ó1.0 | CHECKED<br>李瑶娜  |
| .XX  | Ó0.5 |                 |
| .XXX | Ó0.1 | DRAWING<br>李瑶娜  |
|      |      |                 |

|            |      |                                     |
|------------|------|-------------------------------------|
| CUSTOMER:  |      | 中科微电                                |
| PART NAME: |      | FJ天线 (ZQC-P1-BM) FPC (丝印 ZQC-P1-FJ) |
| SDC P/NO : |      | FJ5912B-A                           |
| REV        | UNIT | FILE :                              |
| A0         | m/m  | SHEET : 3/3                         |

深圳市顺达成  
科技有限公司



顺达成感谢您的支持

Thanks

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