



Applicable to RBG-014 project 4G antenna solution

Electrical Specifications:

|                   |                       |                         |                     |
|-------------------|-----------------------|-------------------------|---------------------|
| Frequency Band    | 4G                    | The Antenna Material    | FPC                 |
| Nominal Impedance | 50 Ω                  | Antenna Connection Mode | IPEX I              |
| VSWR              | ≤4.0                  | Working Temperature     | -40℃~+85℃           |
| Peak Gain         | 700-960MHz: -1.57dBi  | Keep The Temperature    | +19℃~+23℃           |
|                   | 1700-2700MHz: 2.98dBi | Polarization            | Linear Polarization |

Test Conditions And Methods:

| Test Instruments                                                                                                                                                  | Test Method                                                                                                                                                                                                                                                                                                                     | Test Result              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 7*4*3微波暗室<br>7*4*3 microwave darkroom<br>E5071B网络分析仪<br>E5071B network analyzer<br>48探头测试系统<br>48 probe test system<br>MT8862综合测试仪<br>MT8862 comprehensive tester | 1. 将待测天线装配在样机上<br>Assemble the antenna to be tested on the prototype.<br>2. 把样机开机放在暗室内的测试夹具上，并与综测仪/分析仪建立连接<br>Put the prototype on the test fixture in a dark room, and conduct comprehensive test with it. Instrument/analyzer connection is established.<br>3. 用测试软件测试天线无源数据<br>Test antenna passive data with test software. | Refer to the Test Report |

Passive performance test parameters

|                 |     |      |      |      |
|-----------------|-----|------|------|------|
| Frequency (GHz) | 0.7 | 0.96 | 1.71 | 2.69 |
| VSWR            | 1.5 | 4    | 2.8  | 1.8  |



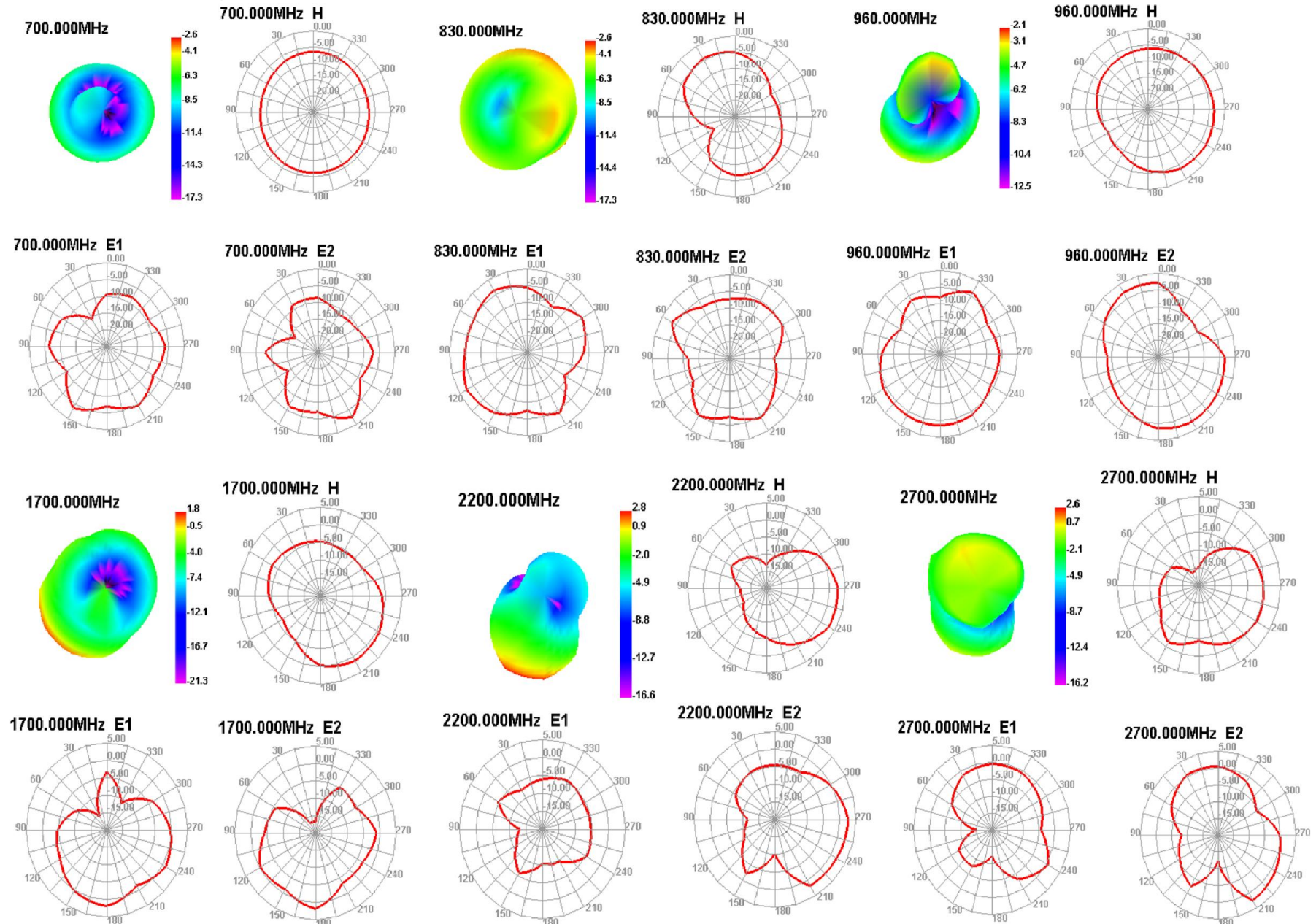
antenna passive data:

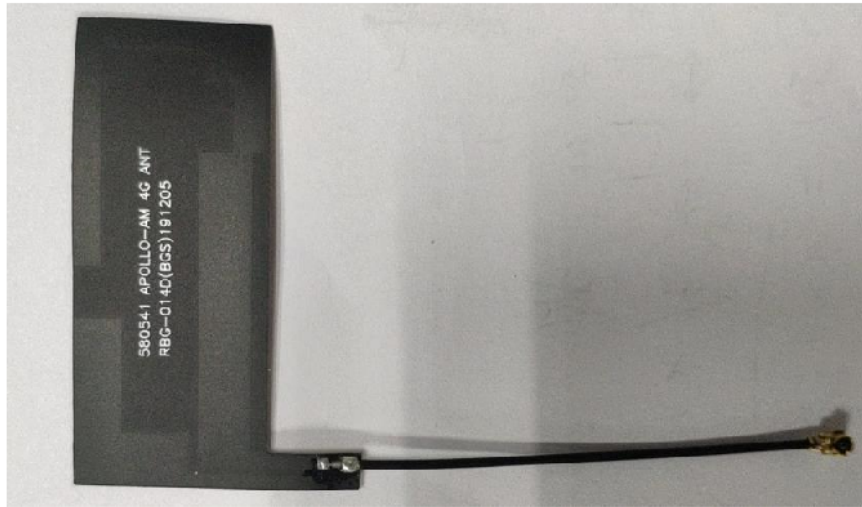
| Freq<br>(MHz) | Effi<br>(%) | Gain<br>(dBi) |
|---------------|-------------|---------------|
| 700           | 21.09       | -2.61         |
| 710           | 23.55       | -3.82         |
| 720           | 22.61       | -4.7          |
| 730           | 22.69       | -4.4          |
| 740           | 23.8        | -4.89         |
| 750           | 23.3        | -4.87         |
| 760           | 24.8        | -4.99         |
| 770           | 27.1        | -4.44         |
| 780           | 30.15       | -4.01         |
| 790           | 32.33       | -3.02         |
| 800           | 30.59       | -2.53         |
| 810           | 35.26       | -2.15         |
| 820           | 35.09       | -2.57         |
| 830           | 35.28       | -2.61         |
| 840           | 37.93       | -2.21         |
| 850           | 39.96       | -1.9          |
| 860           | 37.25       | -1.57         |
| 870           | 36.51       | -2.22         |
| 880           | 35.3        | -1.98         |
| 890           | 33.79       | -3.06         |
| 900           | 31.89       | -3.57         |
| 910           | 28.91       | -4.71         |
| 920           | 32.02       | -4.47         |
| 930           | 33.33       | -4.5          |
| 940           | 29.39       | -3.47         |
| 950           | 30.51       | -2.85         |
| 960           | 32.46       | -2.05         |
| 1700          | 48.43       | 1.82          |
| 1720          | 50.09       | 2.38          |

|      |       |      |
|------|-------|------|
| 1740 | 44.66 | 2.22 |
| 1760 | 42.21 | 1.53 |
| 1780 | 42.65 | 1.07 |
| 1800 | 42.45 | 0.31 |
| 1820 | 43.61 | 0    |
| 1840 | 44.95 | 0.19 |
| 1860 | 50.42 | 1    |
| 1880 | 46.13 | 1.68 |
| 1900 | 51.42 | 2.23 |
| 1920 | 50.66 | 2.66 |
| 1940 | 46.1  | 2.87 |
| 1960 | 44.03 | 2.78 |
| 1980 | 41.21 | 2.24 |
| 2000 | 39.47 | 1.75 |
| 2020 | 41.85 | 1.55 |
| 2040 | 40.36 | 1.21 |
| 2060 | 46.87 | 2.11 |
| 2080 | 47.41 | 2.29 |
| 2100 | 49.49 | 2.37 |
| 2120 | 51.73 | 2.66 |
| 2140 | 51.26 | 2.71 |
| 2160 | 51.83 | 2.77 |
| 2180 | 51.19 | 3    |
| 2200 | 46.32 | 2.81 |
| 2220 | 47.83 | 2.98 |
| 2240 | 44.85 | 2.55 |
| 2260 | 42.83 | 2.17 |
| 2280 | 43.68 | 1.88 |
| 2300 | 43.13 | 1.92 |
| 2320 | 49.57 | 2.64 |
| 2340 | 54.9  | 2.95 |
| 2360 | 53.75 | 3.42 |
| 2380 | 56.99 | 3.19 |

|      |       |       |
|------|-------|-------|
| 2400 | 53.61 | 2.45  |
| 2420 | 53.59 | 1.49  |
| 2440 | 48    | 0.81  |
| 2460 | 35.43 | -0.5  |
| 2480 | 34.02 | -0.18 |
| 2500 | 31.3  | -0.73 |
| 2520 | 32.39 | -1.29 |
| 2540 | 34.68 | -1.1  |
| 2560 | 34.59 | -0.3  |
| 2580 | 42.85 | 0.24  |
| 2600 | 49.76 | 1.27  |
| 2620 | 48.87 | 1.1   |
| 2640 | 54.86 | 1.67  |
| 2660 | 60.86 | 2.57  |
| 2680 | 56.2  | 2.58  |
| 2700 | 57.31 | 2.62  |

## Directional diagram





Connector

