

APPLications

※Bluetooth Home RF

※ISM band 2.4GHz applications

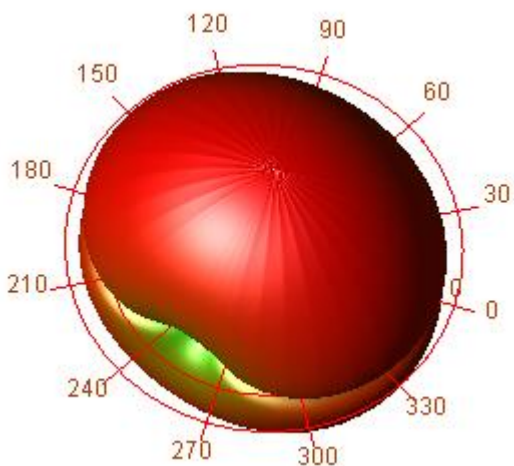
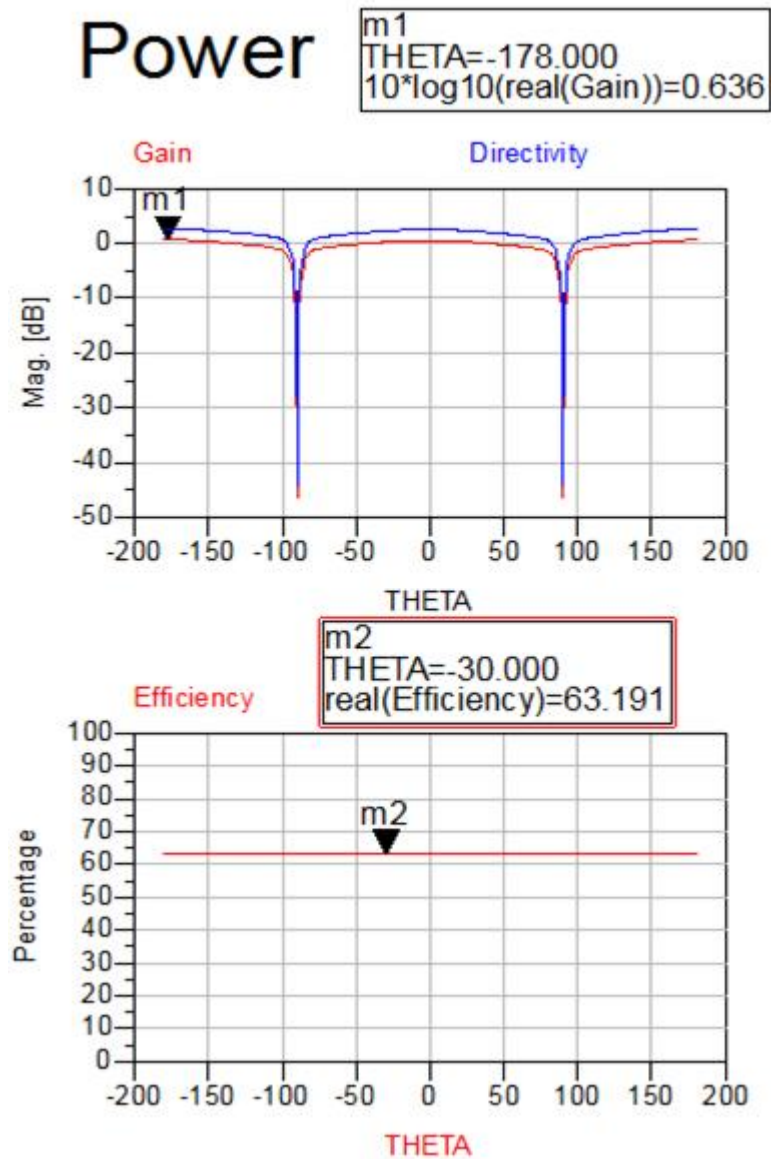
一、Dimensions



二、 Specifications

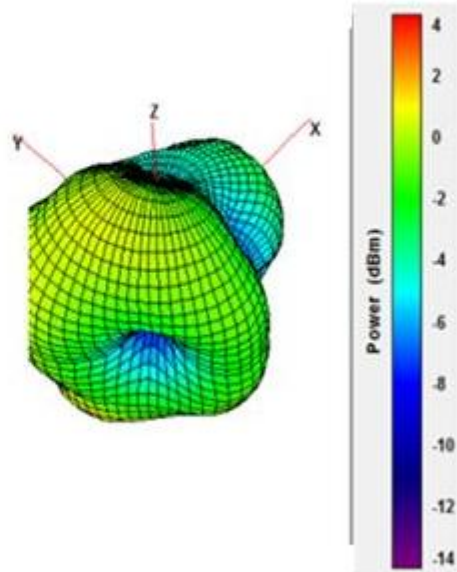
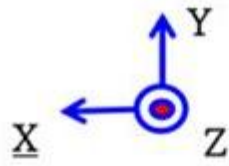
| number | Item | Specifications |
|--------|---------------------------|--------------------|
| 1 | Working Central Frequency | 2441 MHz |
| 2 | Band Width | (2402-2480)MHz |
| 3 | Gain | 1.06dBi |
| 4 | VSWR | ≤ 2.0 |
| 5 | Antenna type | PCB antenna |
| 6 | Azimuth Beam width | Omni - directional |
| 7 | Impedance | 50 R |

二、Simulation and Test



ANTENNA INFORMATION

- Antenna Radiation Pattern



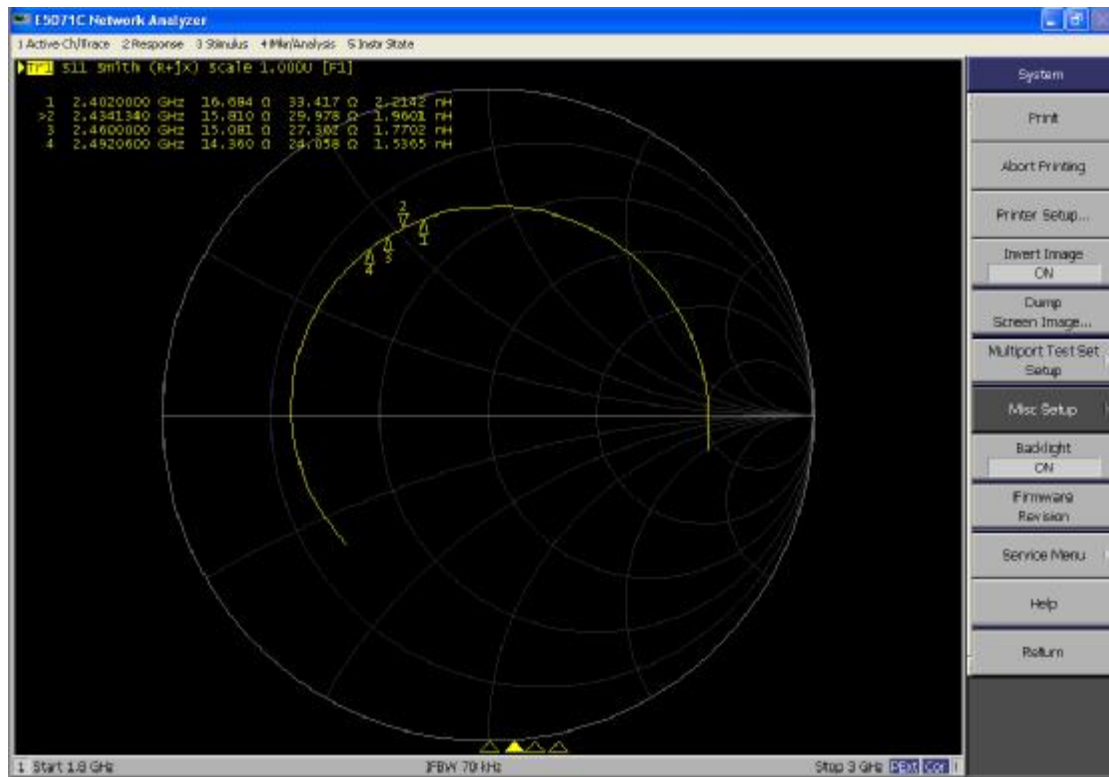
- Antenna Radiation Gain

| Radiation Pattern | | | |
|-------------------|-----------------|----------------|--------------|
| Plane | Frequency [MHz] | Max Value [dB] | Average [dB] |
| ZX | 2400 | 0.22 | -3.47 |
| | 2450 | 0.22 | -3.71 |
| | 2500 | 0.03 | -3.86 |
| ZY | 2400 | 0.97 | -2.23 |
| | 2450 | 1.06 | -2.15 |
| | 2500 | 0.85 | -2.17 |
| XY | 2400 | -0.62 | -4.55 |
| | 2450 | -0.83 | -4.74 |
| | 2500 | -0.32 | -4.66 |

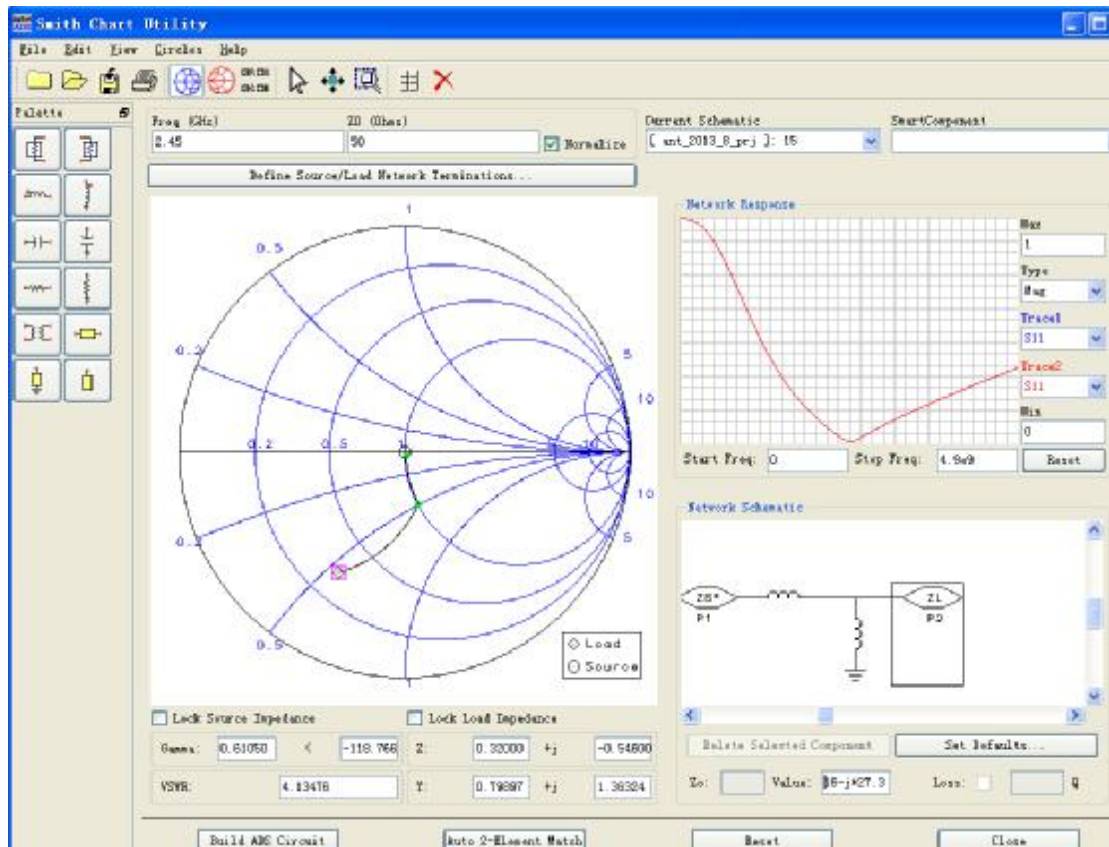
四、仪器实测数据

未进行匹配前的阻抗数据

中心阻抗大约： $16+j27.3$



共轭匹配后



未进行匹配前的阻抗数据

1、Return Loss (匹配后的阻抗)

Mkr1:2402MHz

Mkr2:2434MHz

Mkr3:2460MHz

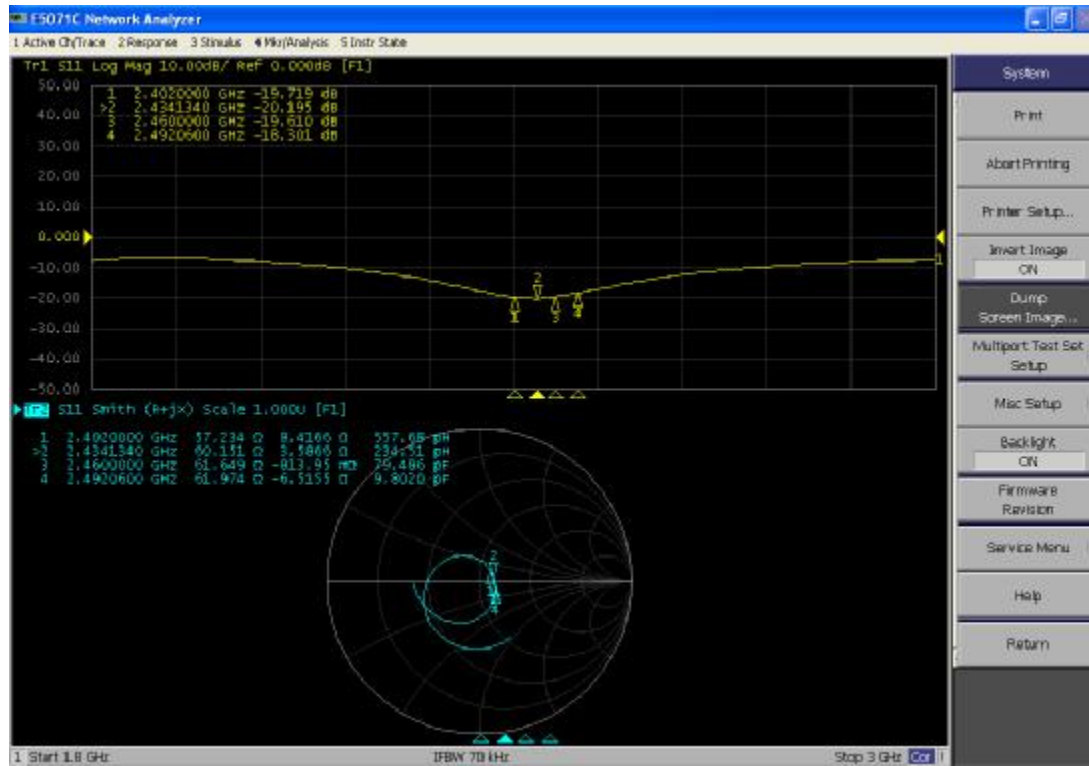
Mkr4:2492MHz

Mkr1:-19.7db

Mkr2:-20.1db

Mkr3:-19.6db

Mkr4:-18.3db



2、VSWR

Mkr1:2402MHz

Mkr2:2434MHz

Mkr3:2460MHz

Mkr4:2492MHz

Mkr1:1.22

Mkr2:1.24

Mkr3:1.28

Mkr4:1.33

