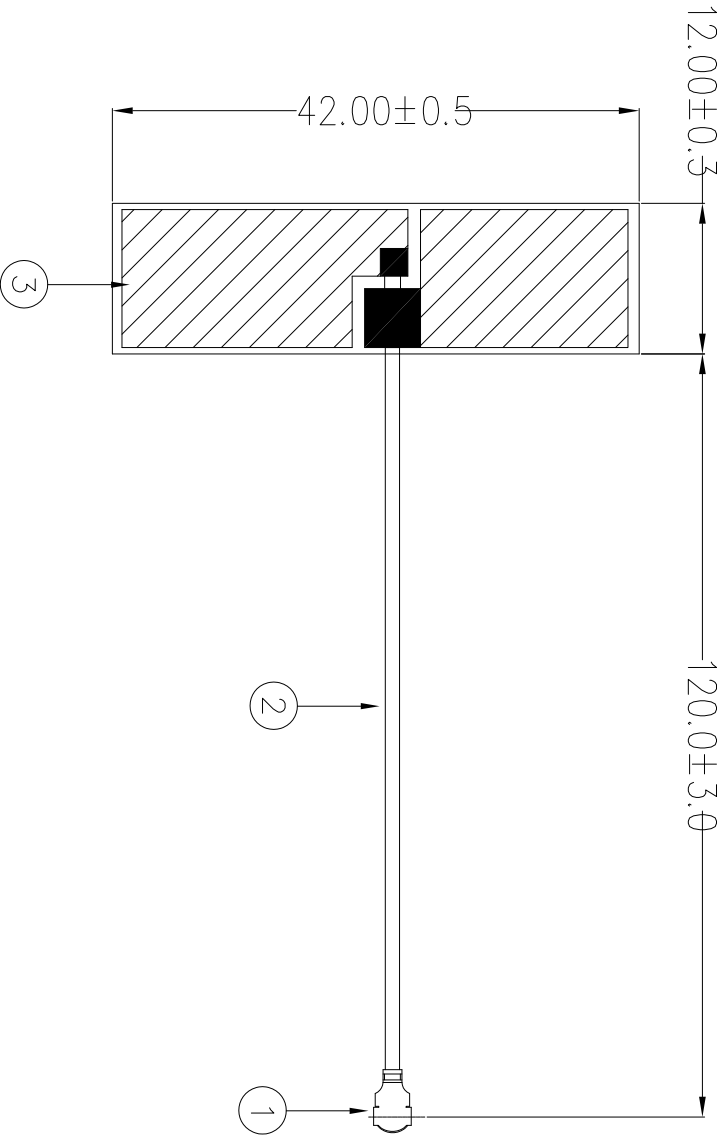


# Antenna Specifications

| Electrical Properties |                           |
|-----------------------|---------------------------|
| Frequency             | 2.4GHz                    |
| Impedance             | 50 Ohm Nominal            |
| V.S.W.R               | 1.92 : 1 Max              |
| Return Loss           | -10 dB Max                |
| Radiation             | Omni-directional          |
| Gain (Peak)           | 3dBi                      |
| Cable Loss            | 3.2 dB / m Max @ 2450 MHz |
| Polarization          | Linear, Vertical          |
| Admitted Power        | 1 W                       |
| Connector             | ipex                      |
| Physical Properties   |                           |
| Antenna Material      | FPCB                      |
| Cable Type            | O.D. 1.13mm // 120 mm     |
| Operating Temp.       | -40 ~ +85 °C              |
| Storage Temp.         | -40 ~ +85 °C              |
| Cable Color           | Black                     |

| SIGN | DATE | DESCRIPTION | APPROVER |
|------|------|-------------|----------|
| △    |      |             |          |
| △    |      |             |          |
| △    |      |             |          |



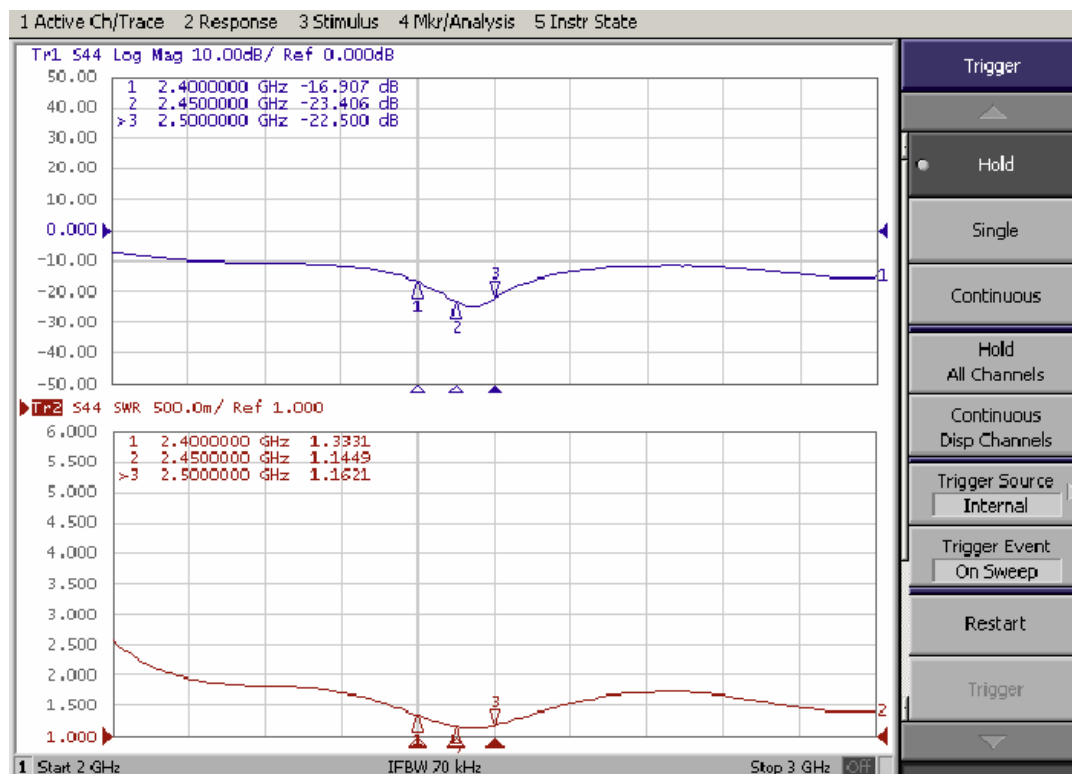
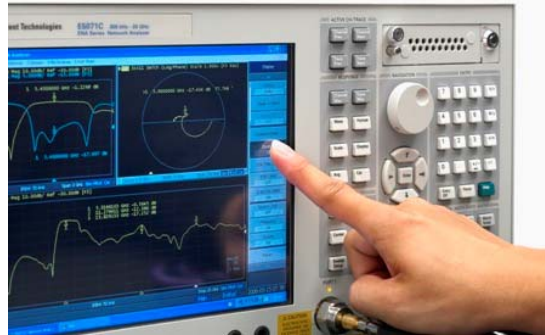
|     |             |               |                         |      |
|-----|-------------|---------------|-------------------------|------|
| 3   | NB030B      | FPC           | 42*12mm                 | 1    |
| 2   | R-CB-113B   | Coaxial Cable | SHOWA-O.D. 1.13mm Black | 1    |
| 1   | Cl-113      | Connector     | Mini Connector          | 1    |
| No. | Part Number | Name          | Material                | Q'ty |

|                           |                    |                               |             |            |
|---------------------------|--------------------|-------------------------------|-------------|------------|
| TITLE: 2.4GHz Antenna     |                    |                               |             |            |
| PART NO.: NB030-13B-IX130 |                    | DWG NAME: NB030-13B-IX130.DWG |             |            |
| APPROVED BY               | CHECKED BY         | DESIGNED BY                   | Tolerance   |            |
| jeff<br>2014-02-26        | leon<br>2014-02-26 | YD<br>2014-02-26              | UNITS: mm   | X.X ±0.20  |
|                           |                    |                               | SCALE: 1/1  | X.XX ±0.10 |
|                           |                    |                               | REVISION: A | X° ±3°     |

# S 参数测试

## S Parameter Test

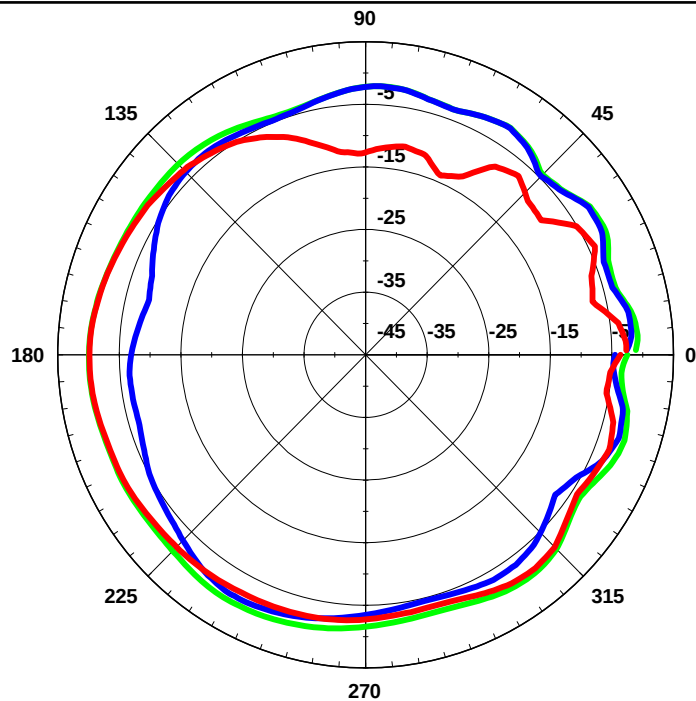
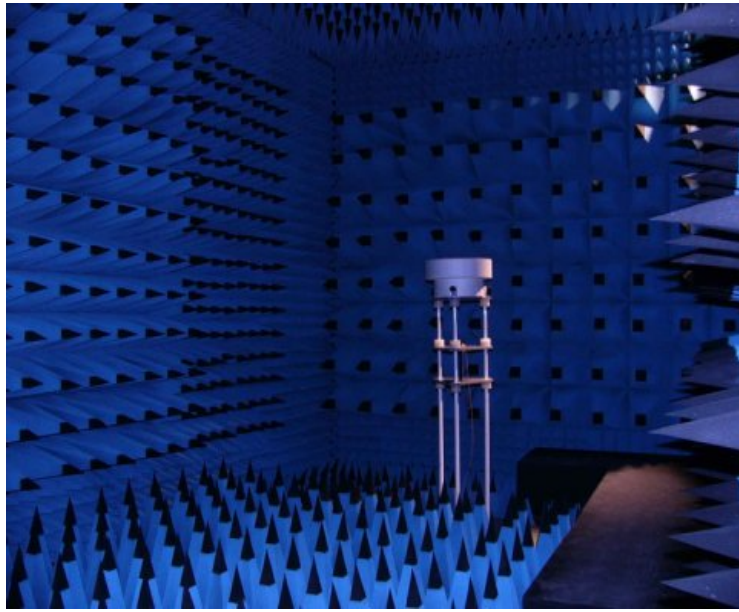
*Agilent E5071C*



# 增益测试

## Gain Test

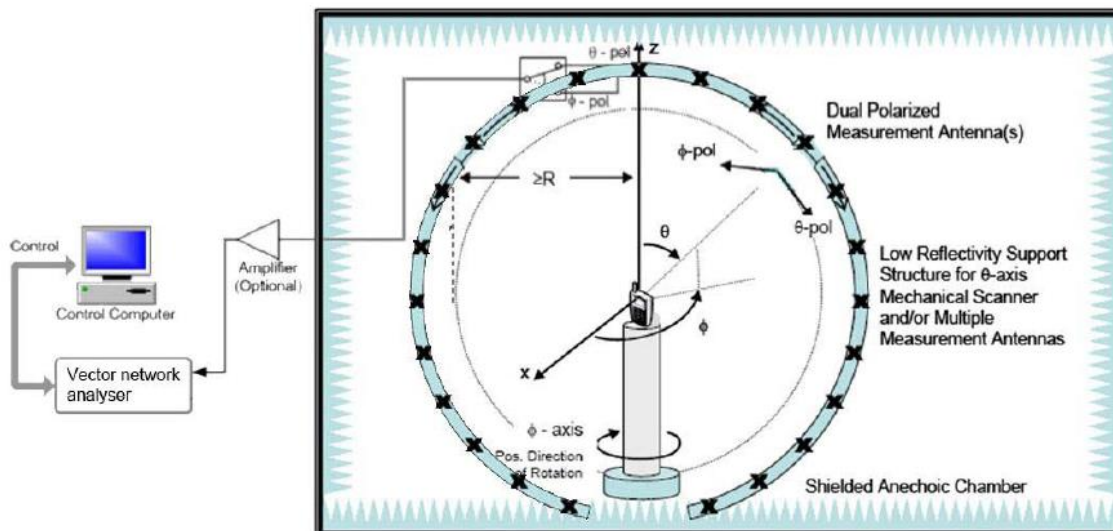
*Antenna  
Radiation  
Pattern  
VS  
Gain*



## ANTENNA SPECIFICATION

### 2.3. 效率及增益 Efficiency and Gain

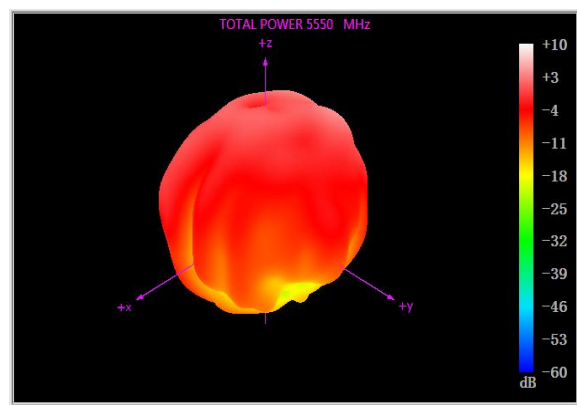
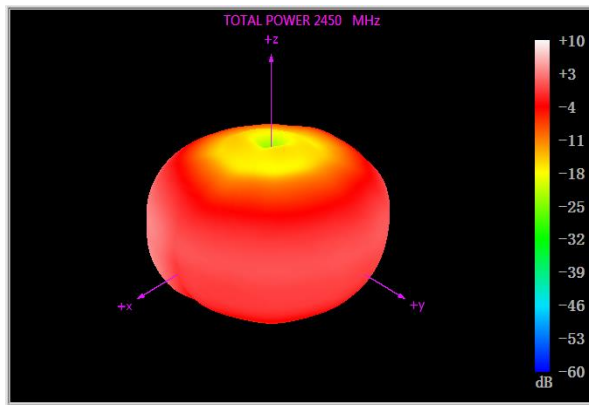
#### 2.3.1. 测试系统 Test system



#### 2.3.2. 无源数据 No-source test data

| Frequency (MHz) |     | Efficiency (%) | Gain (dBi) |
|-----------------|-----|----------------|------------|
| 2400            | MHz | 73.3           | 1.6        |
| 2410            | MHz | 76.98          | 1.99       |
| 2420            | MHz | 80.08          | 1.3        |
| 2430            | MHz | 80.83          | 1.42       |
| 2440            | MHz | 77.86          | 3.00       |
| 2450            | MHz | 71.74          | 2.65       |
| 2460            | MHz | 75.88          | 1.6        |
| 2470            | MHz | 73.21          | 1.27       |
| 2480            | MHz | 65.98          | 2.73       |
| 2490            | MHz | 70.06          | 2.1        |
| 2500            | MHz | 69.83          | 2.09       |

### 2.3.3. 3D Radiation Drawing



# ANTENNA SPECIFICATION

## 2.3.4. directional drawing of horizontal plane

