

|              |                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------|
| Manufacturer | ELEC                                                                                                 |
| Address      | No. 410, Building D2, Luogang Agile Plaza, Shui West Road, Science City, Huangpu District, Guangzhou |
| Model        | OA-W01                                                                                               |
| Antenna type | Pcb antenna                                                                                          |
| Antenna Gain | -2dBi for 2.4G                                                                                       |

## 1.Test equipment and conditions:

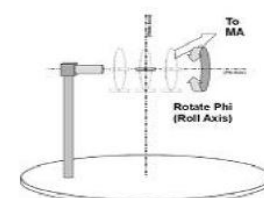
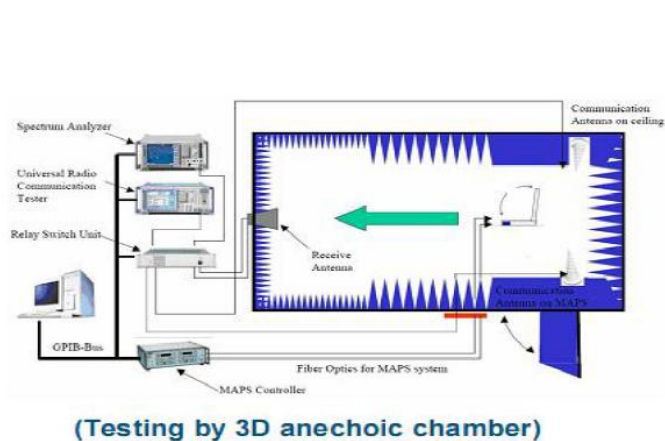
### 1.1.Network Analyzer

Agilent 8753D    Agilent 5071B

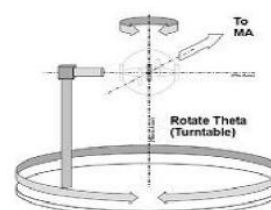
### 1.2.Communication test equipment

Agilent E5515C    R&S    CMW500

### 1.3.Test system

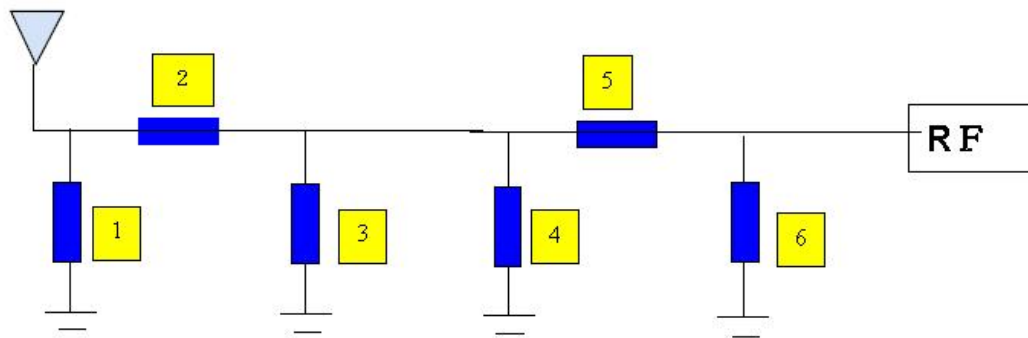


Phi axis test



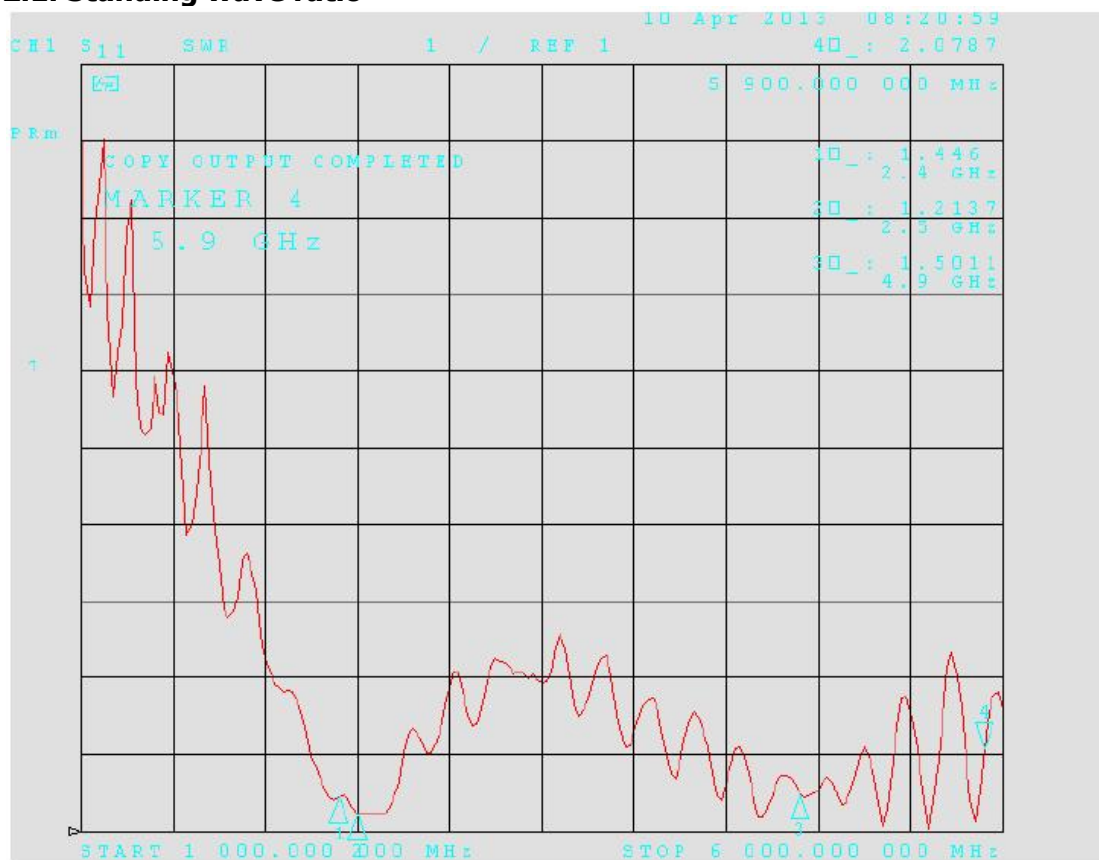
Theta axis test

## 1.4. Matching circuit



## 2. Test Data:

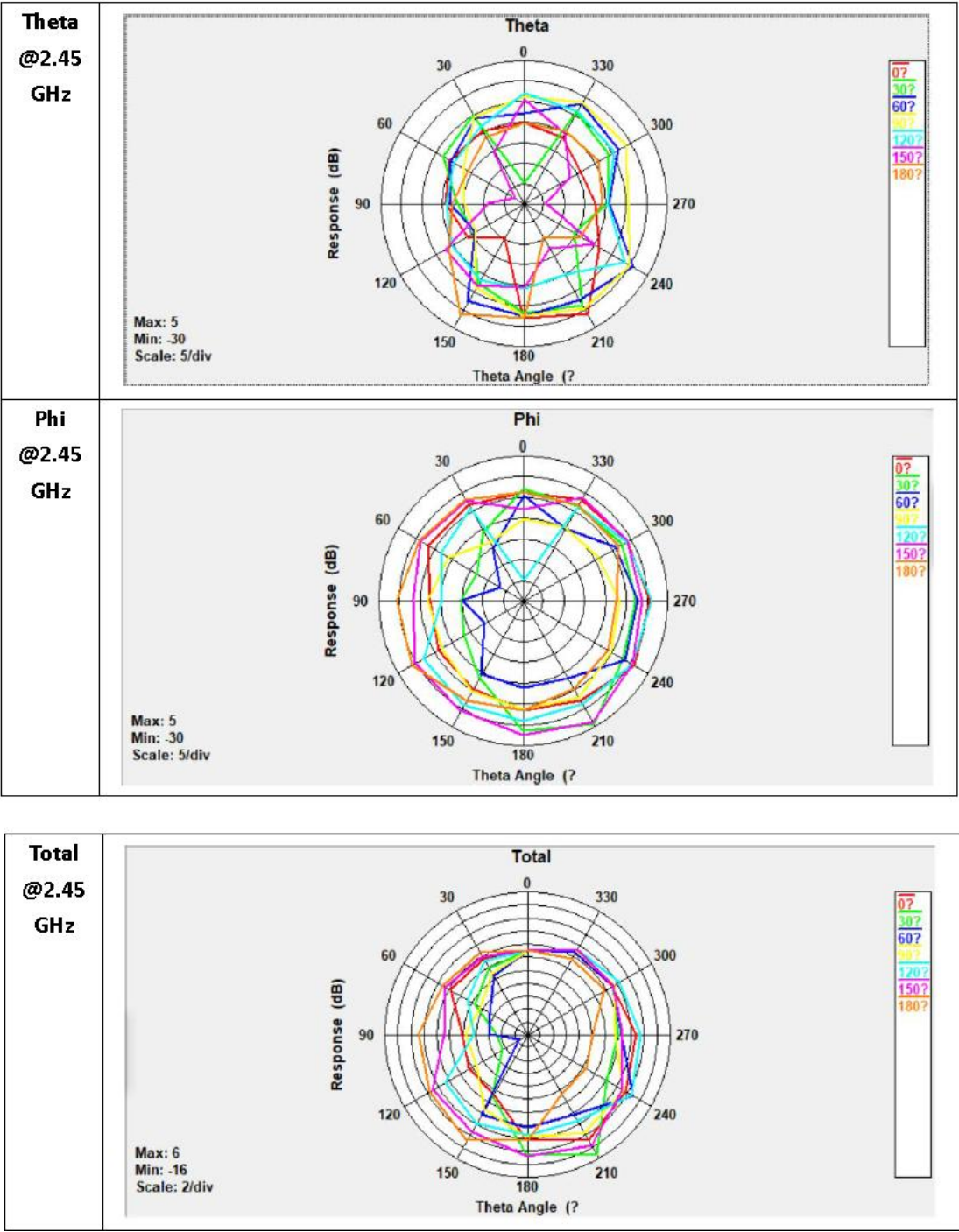
### 2.1. Standing wave ratio



## 2.2.Efficiency

| 2.4G          |             |             |               |               |            |            |             |             |                  |                  |
|---------------|-------------|-------------|---------------|---------------|------------|------------|-------------|-------------|------------------|------------------|
| Fred<br>(MHz) | Effi<br>(%) | Effi<br>(%) | Gain<br>(dBi) | Gain<br>(dBd) | UHS<br>(%) | DHS<br>(%) | Max<br>(dB) | Min<br>(dB) | Attenut<br>(Hor) | Attenut<br>(Ver) |
| 2400          | 44.38       | -2.79       | -2.26         | -4.3          | 40.28      | 13.32      | 2.29        | -23.79      | 48.26            | 49.33            |
| 2410          | 44.63       | -2.46       | -2.66         | -4.8          | 42.42      | 13.54      | 2.46        | -21.29      | 48.66            | 49.58            |
| 2420          | 44.94       | -2.12       | -2.00         | -4.14         | 40.96      | 14.77      | 2.68        | -20.97      | 48.71            | 49.88            |
| 2430          | 44.27       | -2.70       | -2.40         | -4.54         | 43.24      | 15.23      | 2.29        | -22.77      | 48.21            | 49.35            |
| 2440          | 44.75       | -2.39       | -2.30         | -4.44         | 40.71      | 15.79      | 2.53        | -25.39      | 48.58            | 49.56            |
| 2450          | 44.82       | -1.83       | -2.50         | -4.64         | 41.19      | 16.18      | 3.15        | -21.98      | 49.11            | 49.99            |
| 2460          | 44.28       | -2.63       | -2.11         | -4.25         | 42.39      | 18.25      | 2.31        | -25.62      | 48.37            | 49.22            |
| 2470          | 44.49       | -2.34       | -2.44         | -4.58         | 41.78      | 18.80      | 2.50        | -24.31      | 48.50            | 49.54            |
| 2480          | 45.08       | -2.23       | -2.35         | -4.49         | 40.89      | 19.05      | 3.14        | -23.23      | 48.98            | 49.99            |
| 2490          | 44.21       | -2.68       | -2.25         | -4.39         | 43.21      | 19.23      | 2.35        | -21.77      | 48.24            | 49.20            |
| 2500          | 44.46       | -2.32       | -2.61         | -4.75         | 40.44      | 19.62      | 2.48        | -20.30      | 48.48            | 49.61            |

2.3.Directivity diagram



### 3. Antenna drawing:

