

|              |                                                          |
|--------------|----------------------------------------------------------|
| Manufacturer | Dongguan Chuangjie Electronics Co., LTD                  |
| Address      | No.6, Qilin East Road, Daning, Humen Town, Dongguan City |
| Model        | F160C                                                    |
| Antenna type | External antenna                                         |
| Antenna Gain | 2.00dBi for 2.4G                                         |

## 1.Test equipment and conditions:

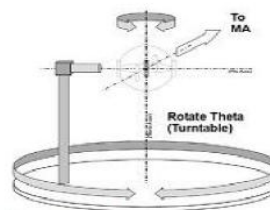
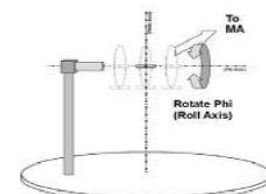
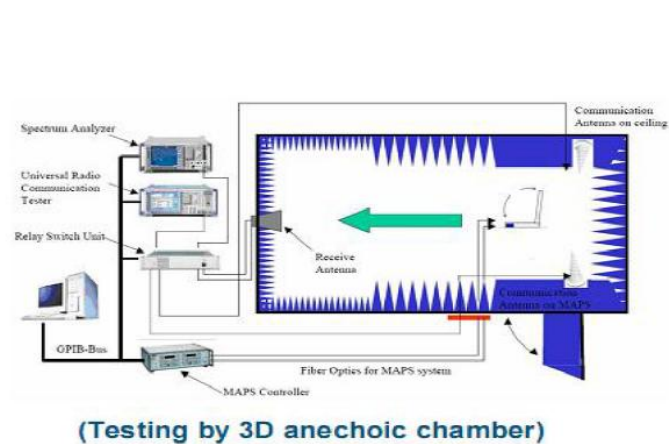
### 1.1.Network Analyzer

Agilent 8753D Agilent 5071B

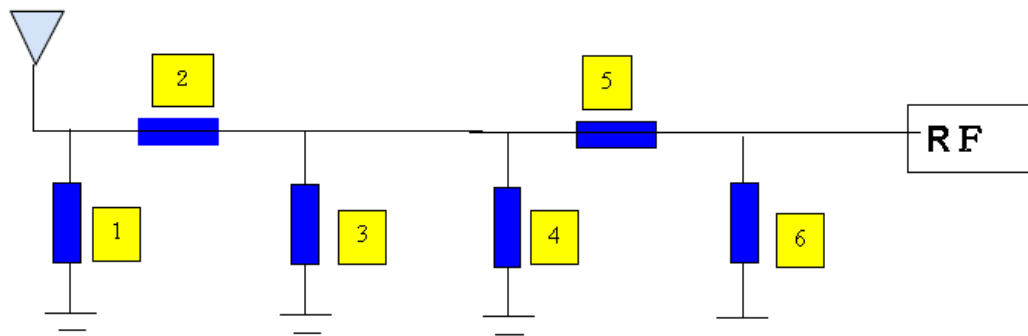
### 1.2.Communication test equipment

Agilent E5515C R&S CMW500

### 1.3.Test system

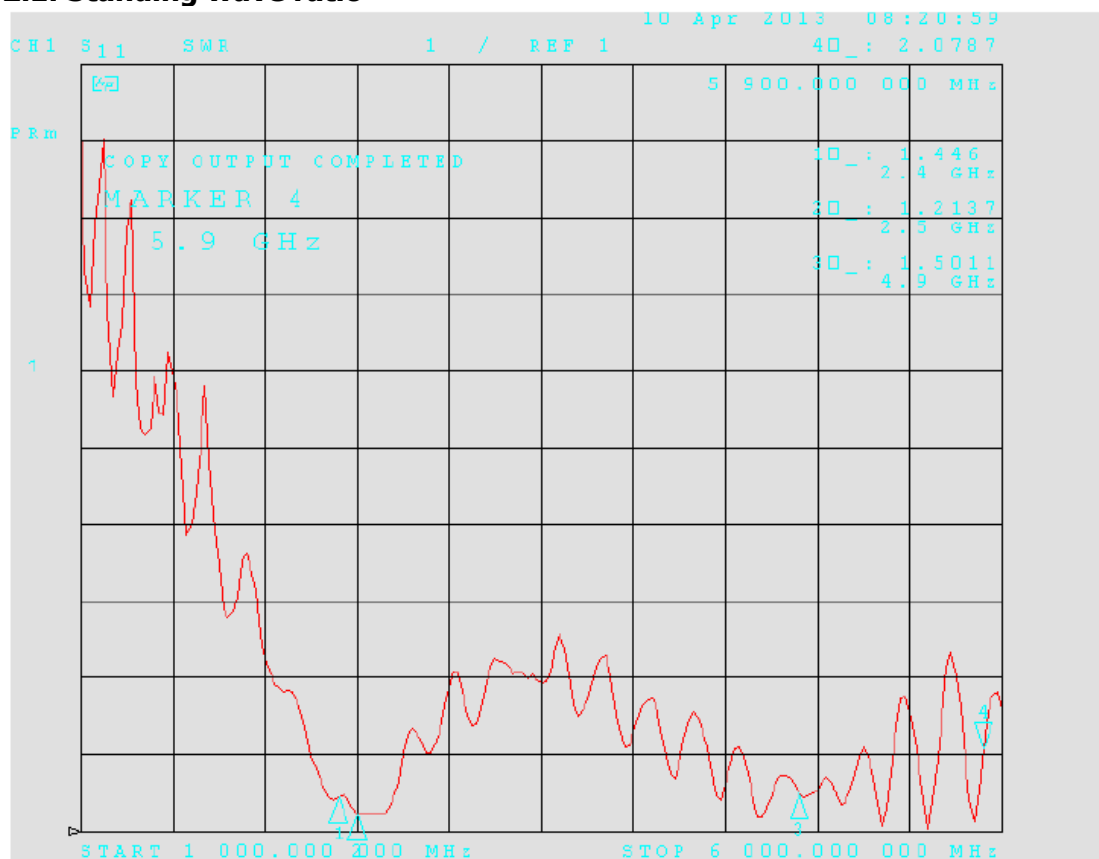


## 1.4. Matching circuit



## 2. Test Data:

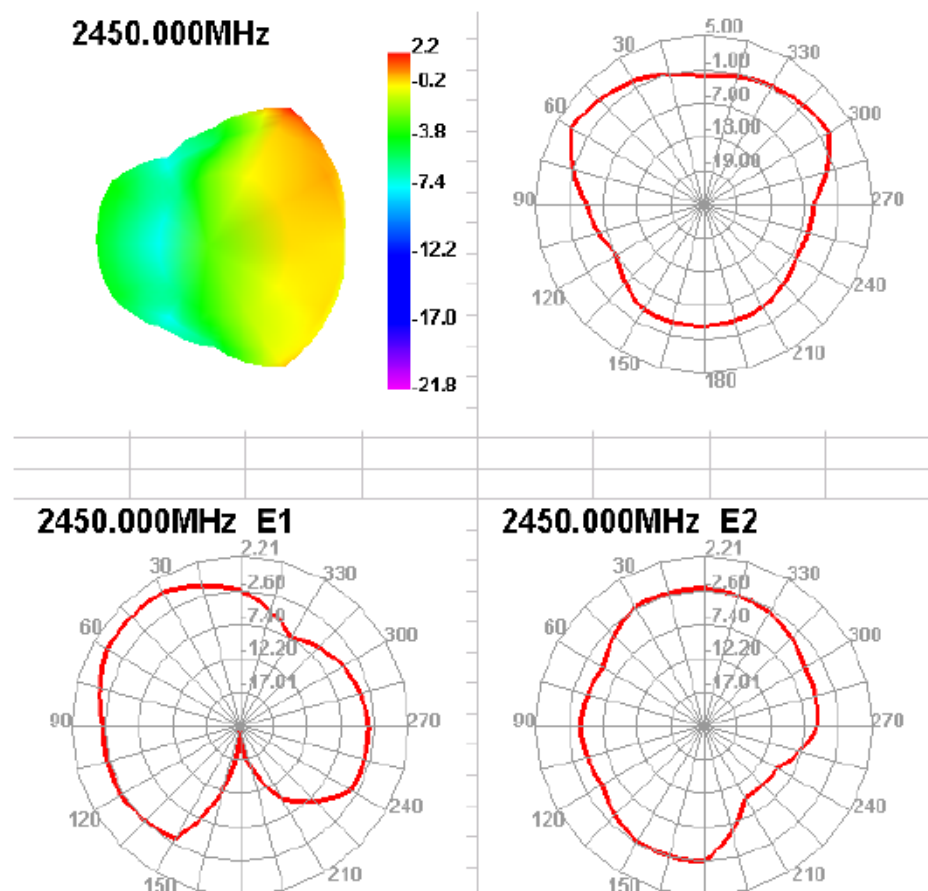
### 2.1. Standing wave ratio



## 2.2.Efficiency

| 2.4G       |          |          |            |            |         |          |          |          |               |               |
|------------|----------|----------|------------|------------|---------|----------|----------|----------|---------------|---------------|
| Fred (MHz) | Effi (%) | Effi (%) | Gain (dBi) | Gain (dBd) | UHS (%) | DHIS (%) | Max (dB) | Min (dB) | Attenut (Hor) | Attenut (Ver) |
| 2400       | 44.38    | -2.79    | 1.26       | -0.88      | 40.28   | 13.32    | 2.29     | -23.79   | 48.26         | 49.33         |
| 2410       | 44.63    | -2.46    | 1.66       | -0.48      | 42.42   | 13.54    | 2.46     | -21.29   | 48.66         | 49.58         |
| 2420       | 44.94    | -2.12    | 1.82       | -0.32      | 40.96   | 14.77    | 2.68     | -20.97   | 48.71         | 49.88         |
| 2430       | 44.27    | -2.70    | 1.40       | -0.74      | 43.24   | 15.23    | 2.29     | -22.77   | 48.21         | 49.35         |
| 2440       | 44.75    | -2.39    | 2.00       | -0.14      | 40.71   | 15.79    | 2.53     | -25.39   | 48.58         | 49.56         |
| 2450       | 44.82    | -1.83    | 1.50       | -0.64      | 41.19   | 16.18    | 3.15     | -21.98   | 49.11         | 49.99         |
| 2460       | 44.28    | -2.63    | 1.23       | -0.91      | 42.39   | 18.25    | 2.31     | -25.62   | 48.37         | 49.22         |
| 2470       | 44.49    | -2.34    | 1.44       | -0.70      | 41.78   | 18.80    | 2.50     | -24.31   | 48.50         | 49.54         |
| 2480       | 45.08    | -2.23    | 1.00       | -1.14      | 40.89   | 19.05    | 3.14     | -23.23   | 48.98         | 49.99         |
| 2490       | 44.21    | -2.68    | 1.25       | -0.89      | 43.21   | 19.23    | 2.35     | -21.77   | 48.24         | 49.20         |
| 2500       | 44.46    | -2.32    | 1.61       | -0.53      | 40.44   | 19.62    | 2.48     | -20.30   | 48.48         | 49.61         |

## 2.3.Directivity diagram



**3. Antenna drawing(mm):**

