

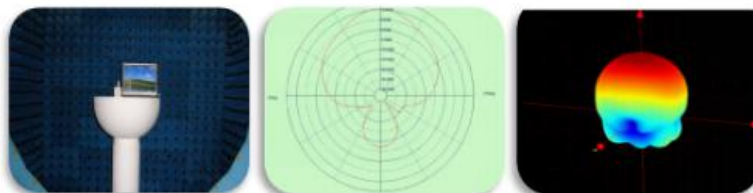
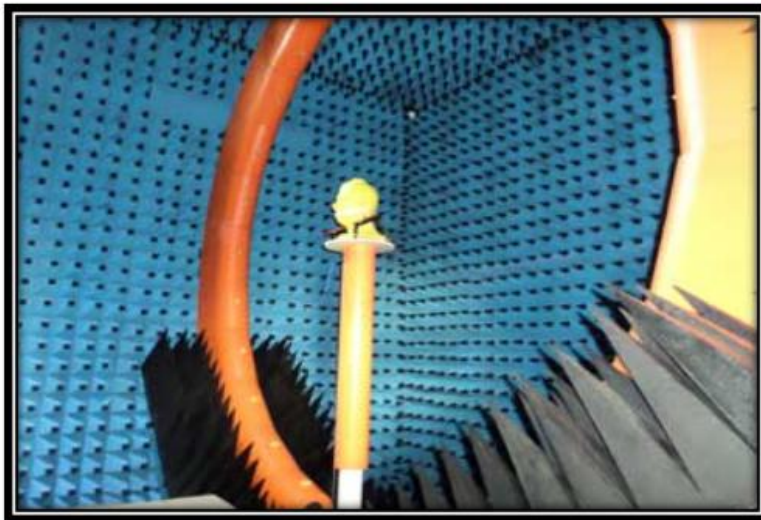
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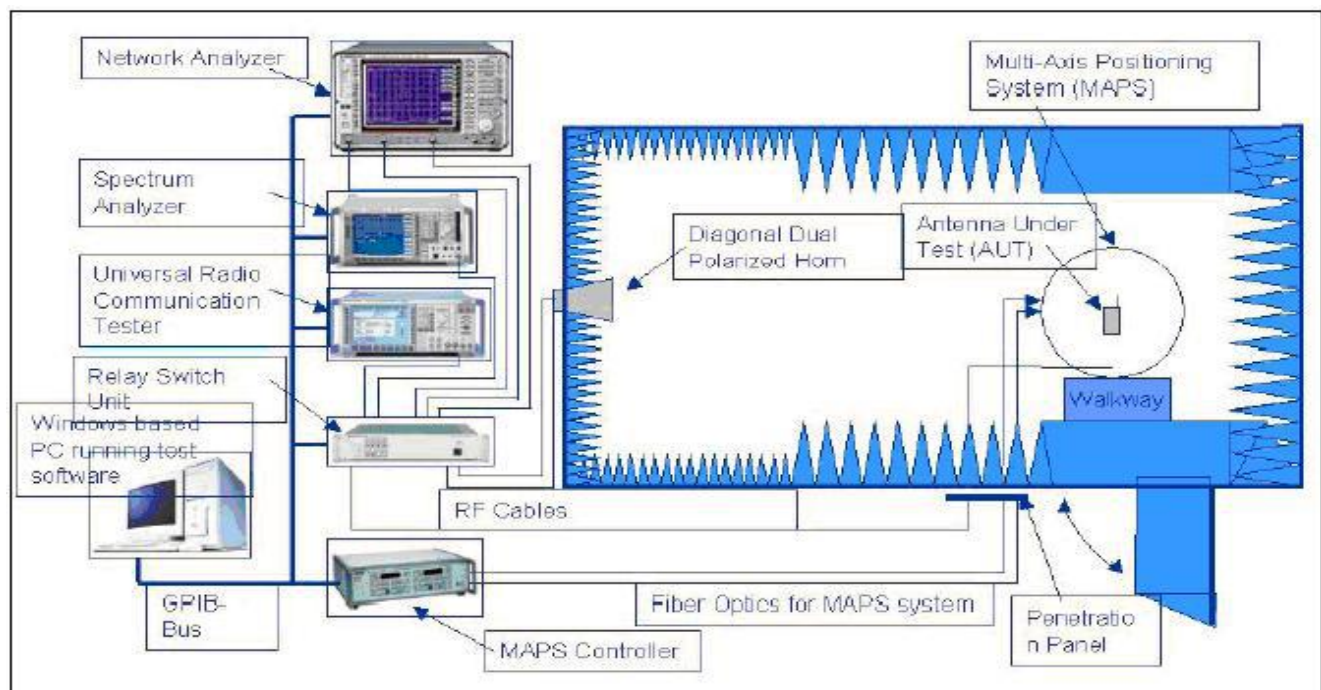
## 1. Test equipment



Owned 6 microwave dark room, equipped 2 sets world leading France Satimo SG24 OTA certification test systems (one in SHENZHEN, another one in Shanghai), ETS OTA Standard test system, Blue test reverberation test system which is High repeatability, high accuracy and high resolution. It can quickly provide accurate test reports, fully meet the CITA standards.

Testing range:

Support active, passive testing of  
GSM/CDMA/WCDMA/TD-  
SCDMA/LTE/WIFI/WLAN/WiMax/BT  
/GPS/MIMO/UWB within 0.4-6G.



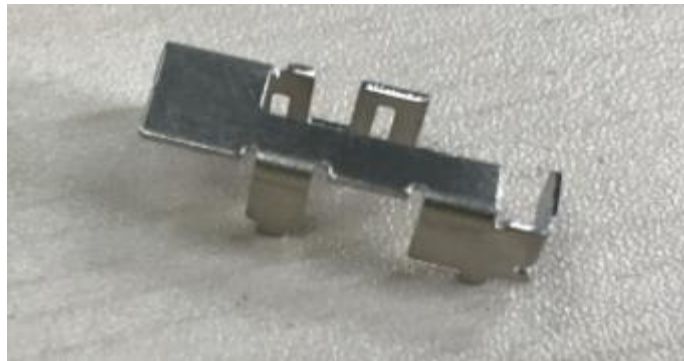
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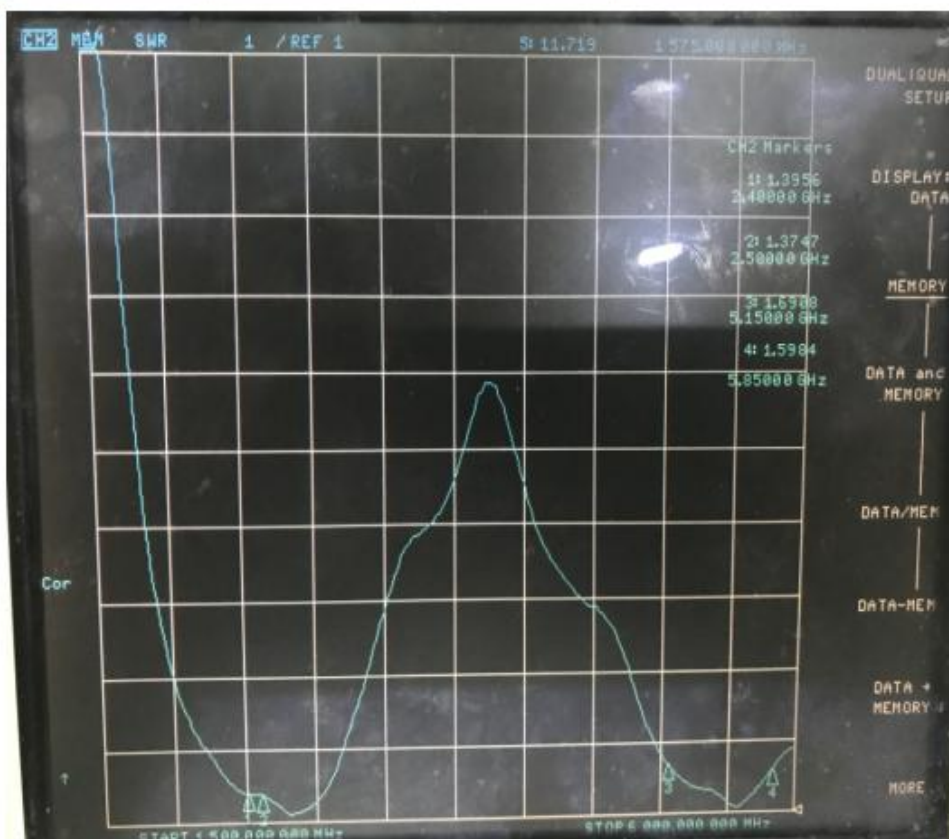
## 2.Product figure



## 3.Antenna test data

### 3-1 VSWR

| 2.4G | 2.5G | 5.15G | 5.85G |
|------|------|-------|-------|
| 1.39 | 1.37 | 1.69  | 1.59  |



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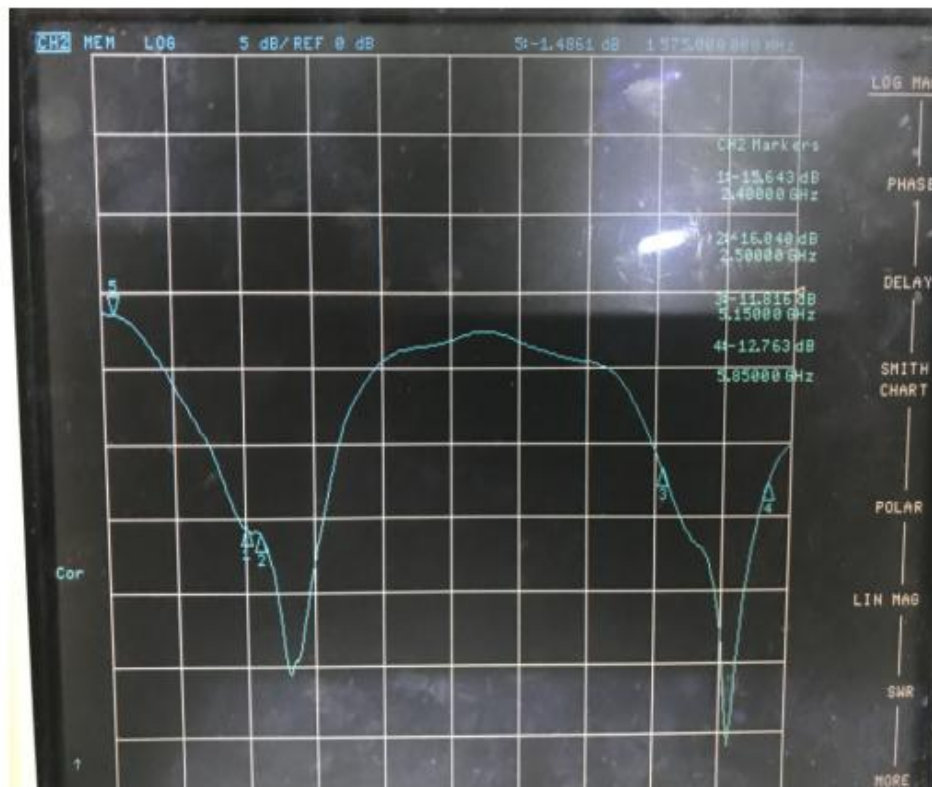
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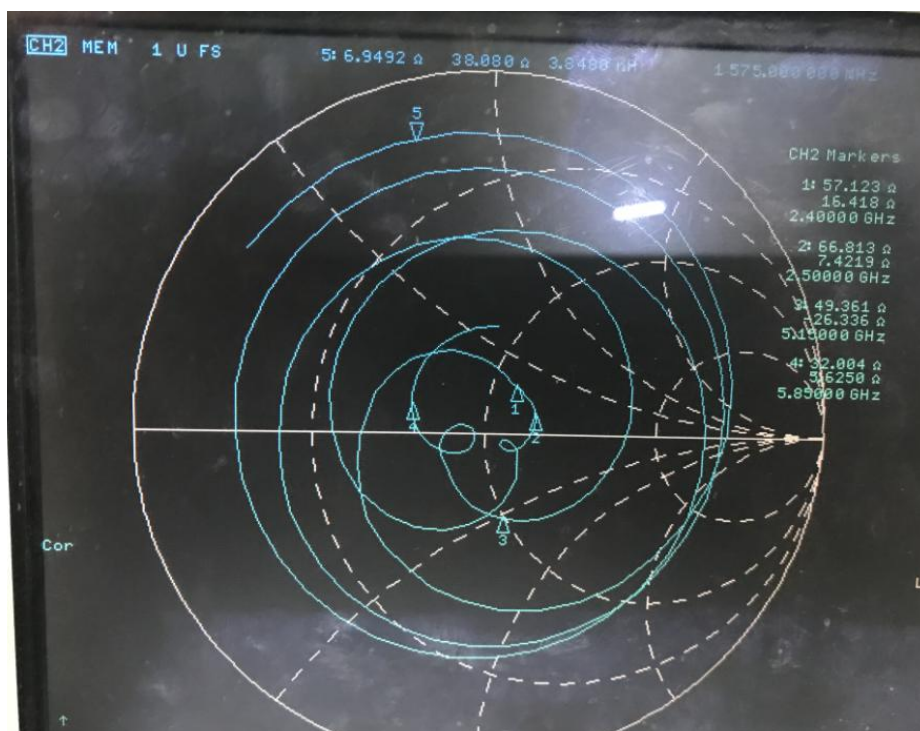
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## 3-2 Return loss plot

| 2.4G    | 2.5G    | 5.15G   | 5.85G   |
|---------|---------|---------|---------|
| -15.6dB | -16.0dB | -11.8dB | -12.7dB |



## 3-3 Smith Chart



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## 3-4 Matching circuit

N/A

## 3-5 No-source test data

| Frequency  | 2.4G | 2.42G | 2.45G | 2.47G | 2.49G |
|------------|------|-------|-------|-------|-------|
| Efficiency | 59%  | 58%   | 57%   | 58%   | 57%   |
| Gain.dB    | 2.53 | 2.92  | 2.86  | 2.87  | 2.96  |

| Frequency | Efficiency | Efficiency . dB | Frequency | Gain . dB |
|-----------|------------|-----------------|-----------|-----------|
| 2.4E+09   | 59%        | -2.27028        | 2.4E+09   | 2.538545  |
| 2.41E+09  | 58%        | -2.34515        | 2.41E+09  | 2.741231  |
| 2.42E+09  | 58%        | -2.39054        | 2.42E+09  | 2.922523  |
| 2.43E+09  | 57%        | -2.45035        | 2.43E+09  | 2.970949  |
| 2.44E+09  | 58%        | -2.3768         | 2.44E+09  | 2.976098  |
| 2.45E+09  | 57%        | -2.44196        | 2.45E+09  | 2.864206  |
| 2.46E+09  | 59%        | -2.29193        | 2.46E+09  | 2.906926  |
| 2.47E+09  | 58%        | -2.34219        | 2.47E+09  | 2.873983  |
| 2.48E+09  | 58%        | -2.37285        | 2.48E+09  | 2.916145  |
| 2.49E+09  | 57%        | -2.47035        | 2.49E+09  | 2.965443  |
| 2.5E+09   | 58%        | -2.3868         | 2.5E+09   | 2.880728  |

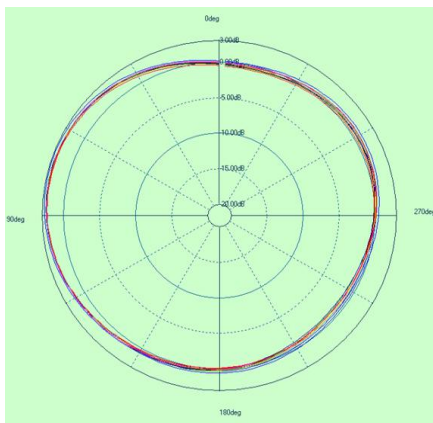
| Frequency  | 5.15G | 5.25G | 5.75G | 5.8G | 5.85G |
|------------|-------|-------|-------|------|-------|
| Efficiency | 65%   | 60%   | 62%   | 58%  | 61%   |
| Gain.dB    | 2.27  | 2.39  | 2.57  | 2.34 | 2.55  |

| Frequency | Efficiency | Efficiency . dB | Frequency | Gain . dB |
|-----------|------------|-----------------|-----------|-----------|
| 5.15E+09  | 65%        | -1.85252        | 5.15E+09  | 2.274527  |
| 5.2E+09   | 62%        | -2.0823         | 5.2E+09   | 2.314546  |
| 5.25E+09  | 60%        | -2.18393        | 5.25E+09  | 2.391462  |
| 5.3E+09   | 61%        | -2.1755         | 5.3E+09   | 2.468697  |
| 5.35E+09  | 61%        | -2.14496        | 5.35E+09  | 2.405616  |
| 5.4E+09   | 60%        | -2.22463        | 5.4E+09   | 2.422098  |
| 5.45E+09  | 61%        | -2.11757        | 5.45E+09  | 2.781158  |
| 5.5E+09   | 61%        | -2.15105        | 5.5E+09   | 2.714014  |
| 5.55E+09  | 66%        | -1.8314         | 5.55E+09  | 2.572588  |
| 5.6E+09   | 67%        | -1.7071         | 5.6E+09   | 2.690885  |
| 5.65E+09  | 67%        | -1.74773        | 5.65E+09  | 2.804433  |
| 5.7E+09   | 64%        | -1.91613        | 5.7E+09   | 2.800621  |
| 5.75E+09  | 62%        | -2.10672        | 5.75E+09  | 2.572987  |
| 5.8E+09   | 58%        | -2.34557        | 5.8E+09   | 2.347272  |
| 5.85E+09  | 61%        | -2.12044        | 5.85E+09  | 2.550763  |

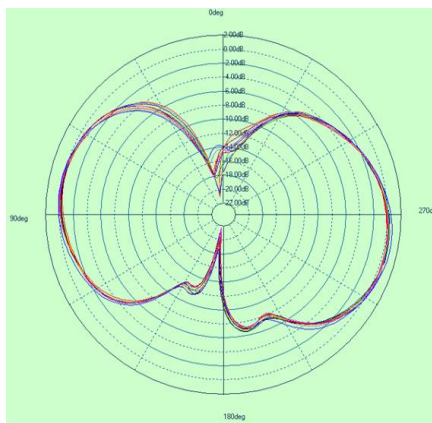
## 3-6 Environment treatment

N/A

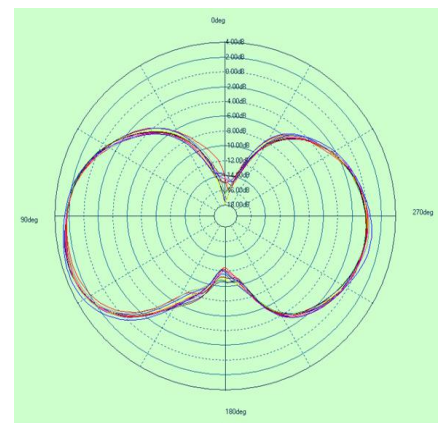
## 3-7 Directional drawing of horizontal plane of (2.4G)



Theta 90deg



Phi 0deg



Phi 90deg

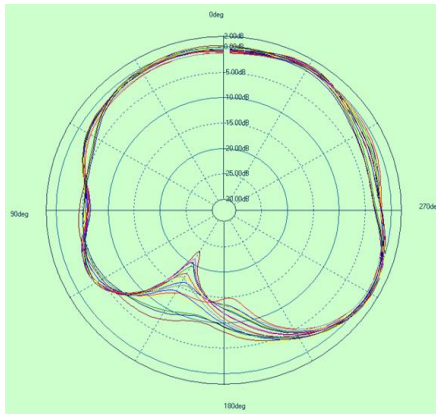
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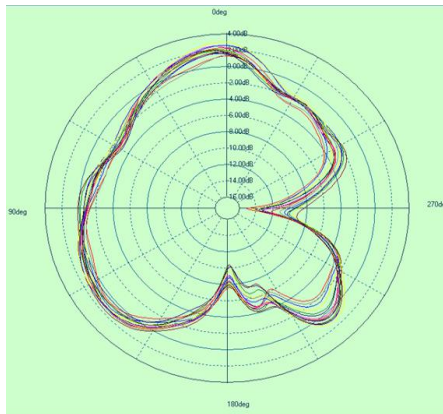
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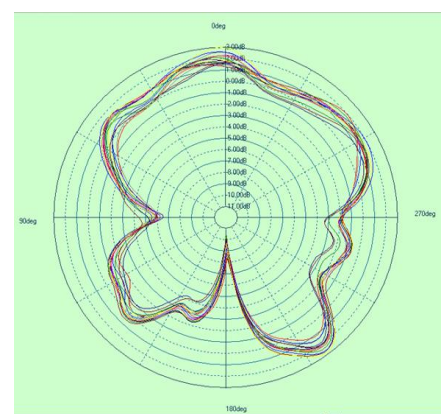
(5G)



Theta 90deg

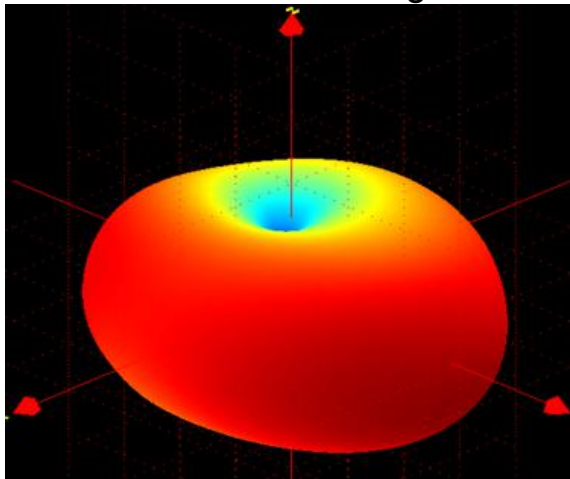


Phi 0deg

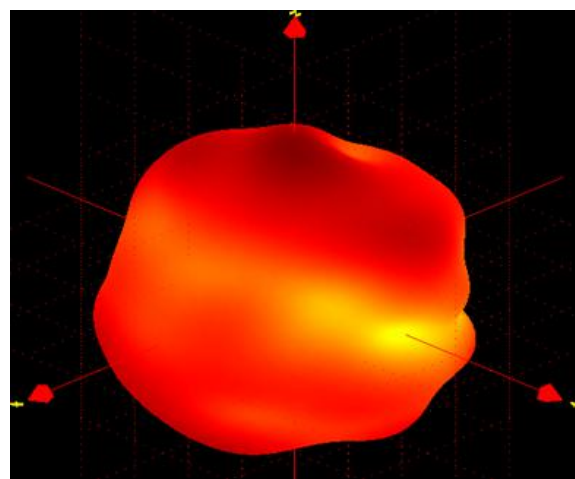


Phi 90deg

3-8 3D radiation drawing



(2.4G)



(5G)



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## 4. Mechanical Specification

[illegible]