

## Product specification

### Quick Reference Date

|                          |                                    |  |
|--------------------------|------------------------------------|--|
|                          | Antenna module on the system board |  |
| Frequency                | 2400-2480MHz                       |  |
| Ant.Port Input Pwr.(dBm) | 0(Typ.BT class 2 output power)     |  |
| Tot.Rad.Pwr.(dBm)        | -2.3(Input pwr-loss pwr)           |  |
| Peak EIRP(dBm)           | 0.5                                |  |
| Directivity(dBi)         | 1 (all direction antenna)          |  |
| Efficiency(dB)           | -2.3(58.5%)                        |  |
| Gain(dBi)                | 0(Peak Gain XY-plane)              |  |
| Maximum Power(dBm)       | -0.8 (XY- plane)                   |  |
| Maximum Power(dBm)       | -4(XY-plane)                       |  |
| Avg.Power(dBm)           | -0.5(XY-plane)                     |  |
| Max/Min Ratio(dB)        | 5.3(XY-plane)                      |  |
| Max/Avg Ratio(dB)        | 1.8(XY-plane)                      |  |
| Min/Avg Ratio(dB)        | -3.5(XY-plane)                     |  |
| Average Gain(dB)         | -0.5(Avg Gain XY-plane)            |  |

All the technical data and information contained herein are subject to change without prior notice

### Antenna Layout & module on the system board

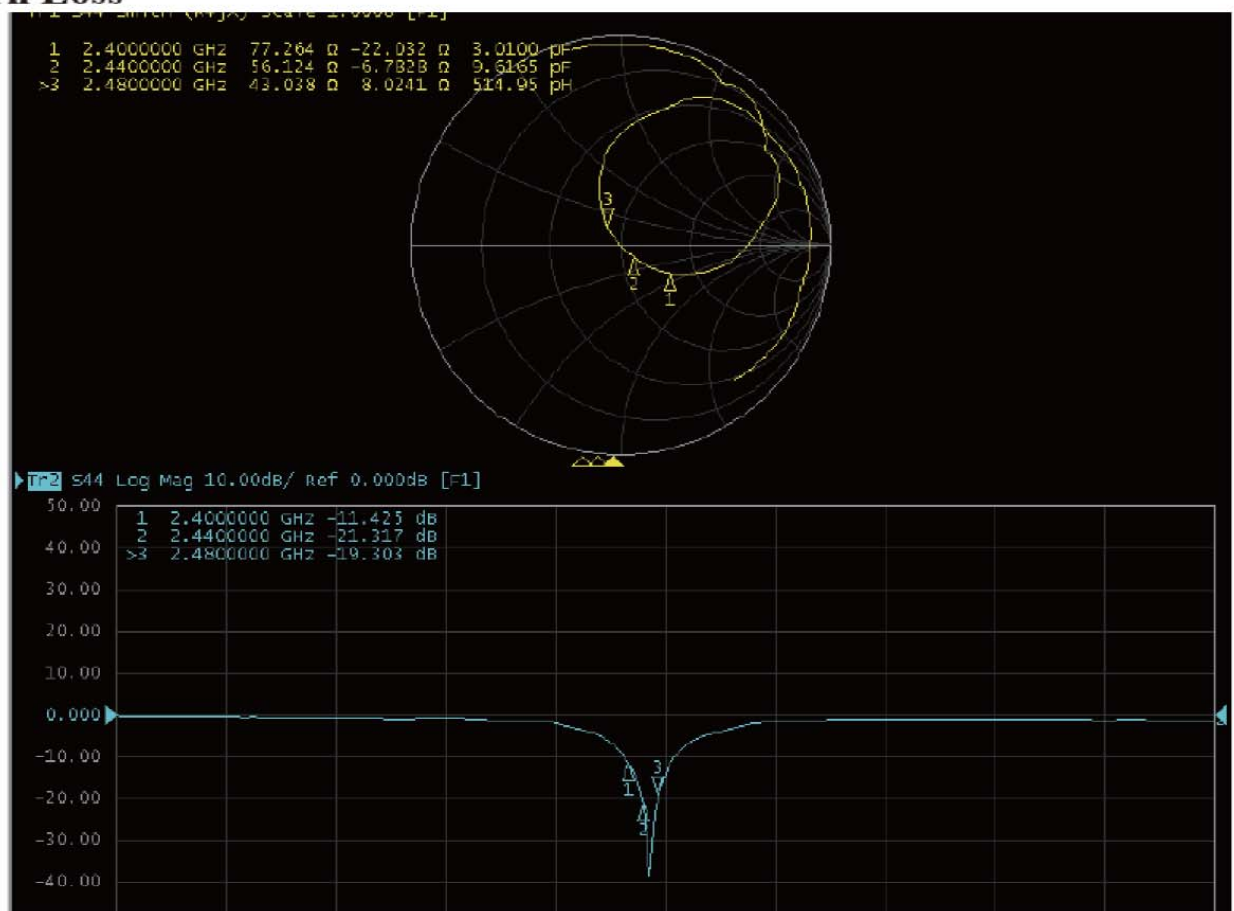


### Antenna Gain

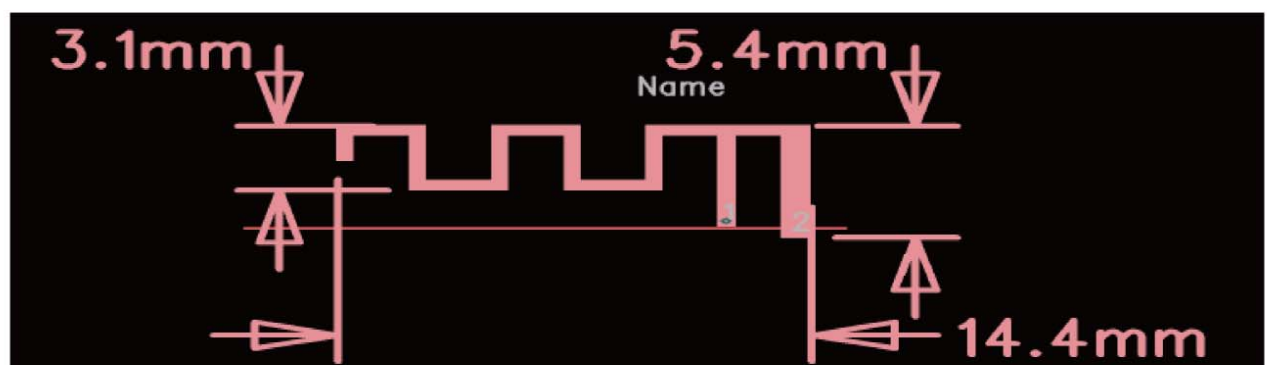
Gain Table

| Unit in dBi @ 2.44GHz | XY-plane |      | XZ-plane |      | YZ-plane |      | Efficiency |
|-----------------------|----------|------|----------|------|----------|------|------------|
|                       | Peak     | Avg. | Peak     | Avg  | Peak     | Avg  |            |
| Module Board          | -0.8     | -0.5 | 0        | -3.8 | 0        | -3.0 | 58.5%      |

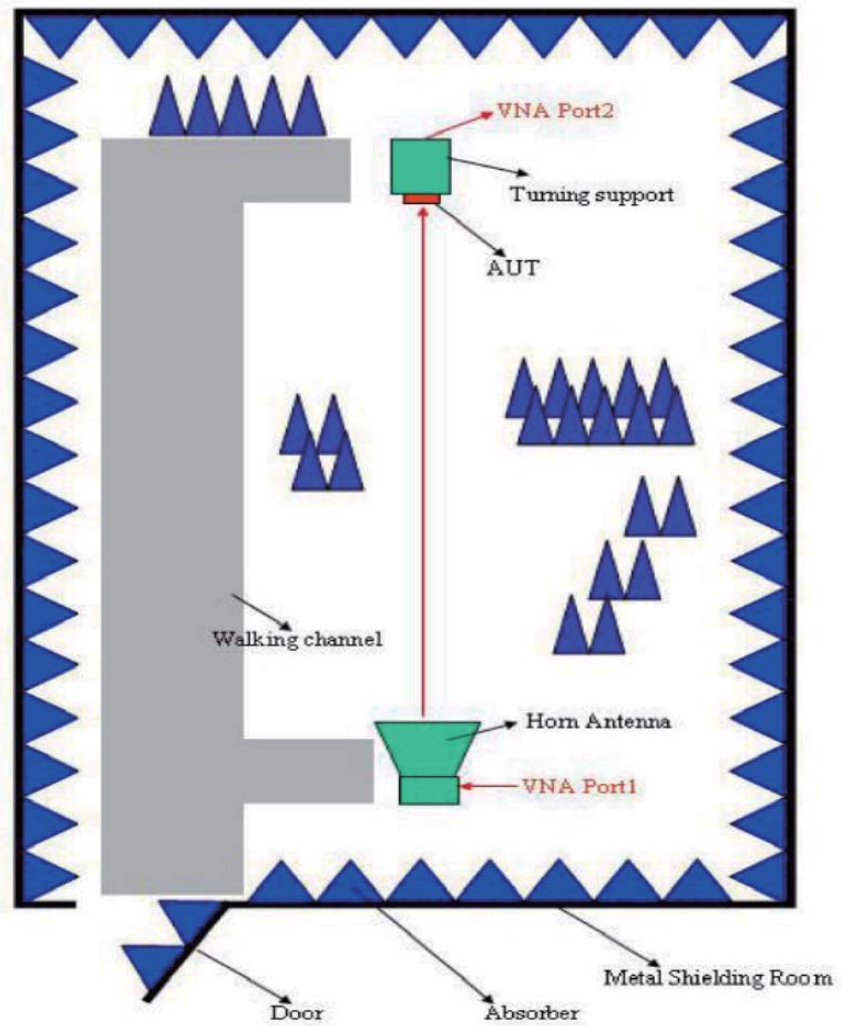
## Return Loss



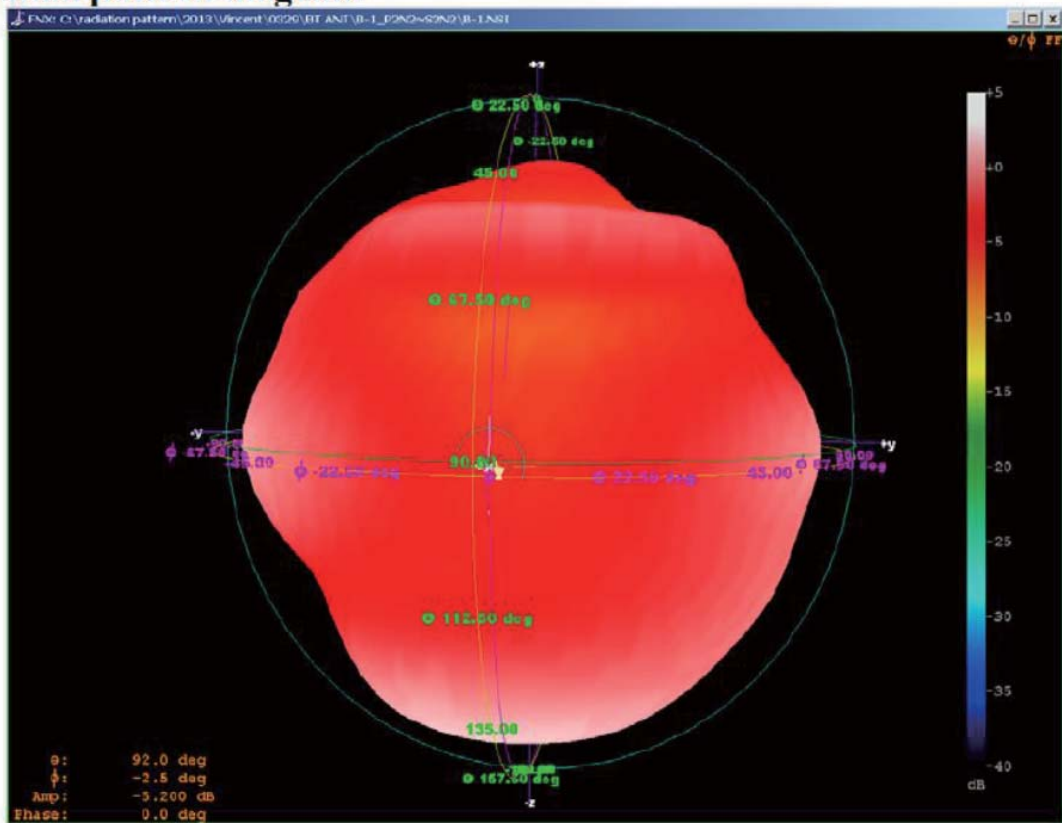
## Antenna Size



## The Environment of Antenna Radiation Pattern

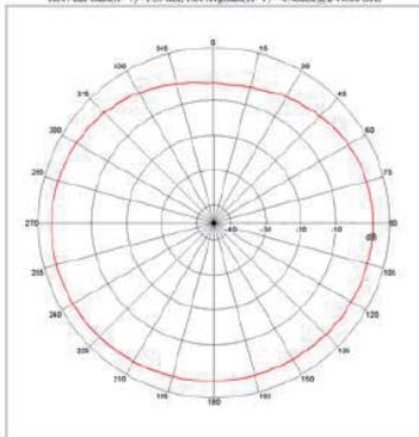


## 3D radiation pattern diagram



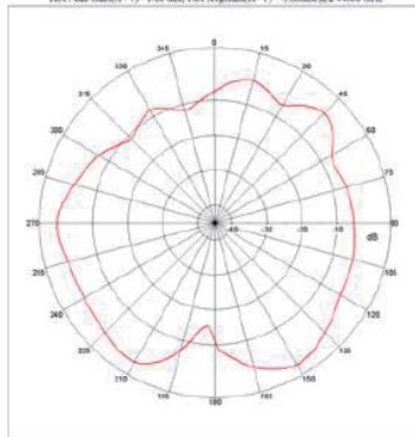
## XY-plane

Far-field Power Distribution(H+V) on X-Y Plane  
Plot Peak Gain(H+V)= 1.31 dBi, Plot AvgGain(H+V)= -4.48dBi @2.4800 GHz



## XZ-plane

Far-field Power Distribution(H+V) on X-Z Plane  
Plot Peak Gain(H+V)= 1.68 dBi, Plot AvgGain(H+V)= -3.83dBi @2.4800 GHz



## YZ-plane

Far-field Power Distribution(H+V) on Y-Z Plane  
Plot Peak Gain(H+V)= 1.11 dBi, Plot AvgGain(H+V)= -3.99dBi @2.4800 GHz

