

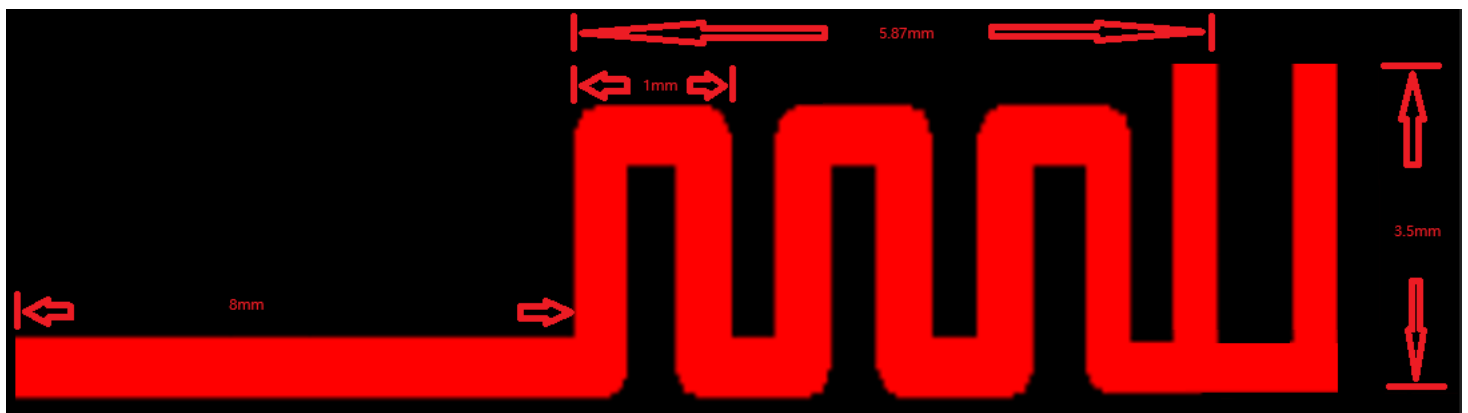
## **Product specification**

### **Quick Reference Date**

|                            |                                    |  |
|----------------------------|------------------------------------|--|
|                            | Antenna module on the system board |  |
| Frequenc Range             | 2400 ~ 2500MHz                     |  |
| Ant. Port Input Pwr. (dBm) | 0 (Typ. BT class 2 output power)   |  |
| Tot. Rad. Pwr. (dBm)       | -1.2 (Input pwr – loss pwr)        |  |
| Peak EIRP(dBm)             | -2                                 |  |
| Directivity (dBi)          | 1 (all direction antenna)          |  |
| Efficiency (dB)            | 60.2 %                             |  |
| Gain (dBi)                 | 1.3 (Peak Gain XZ-plane)           |  |
| Maximum Power (dBm)        | 1.7 (XY-plane)                     |  |
| Minimum Power (dBm)        | -4(XY-plane)                       |  |
| Avg. Power (dBm)           | -0.5(XY-plane)                     |  |
| Input Impendence(ohm)      | 50                                 |  |
| Polarization Type          | Vertical & Horizontal              |  |
| V . S . W . R              | < 1.4                              |  |

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

### **Antenna Layout & module on the system board**

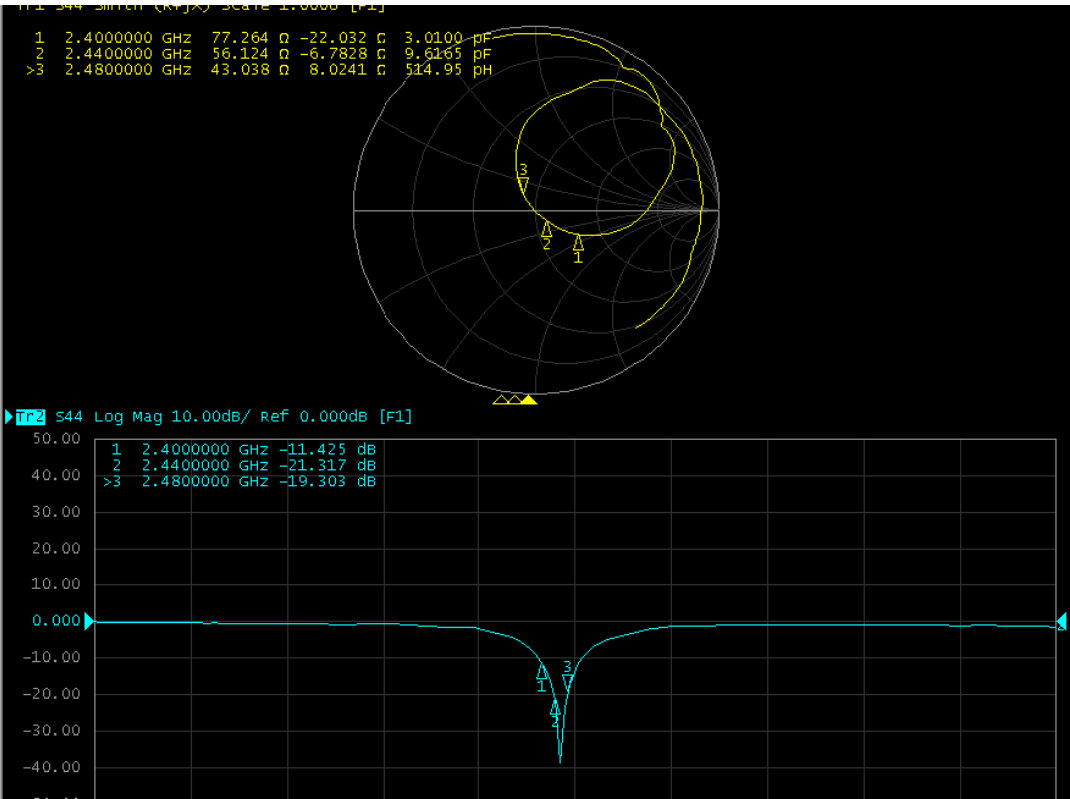


### **Antenna Gain**

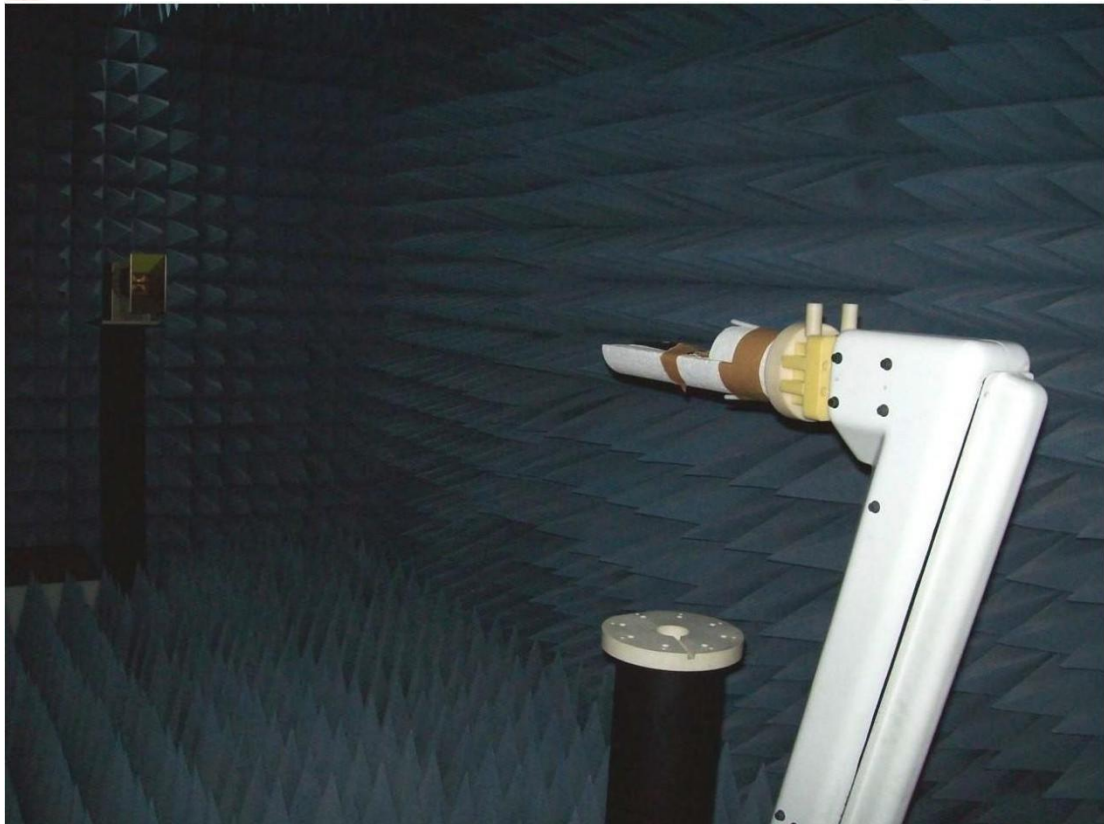
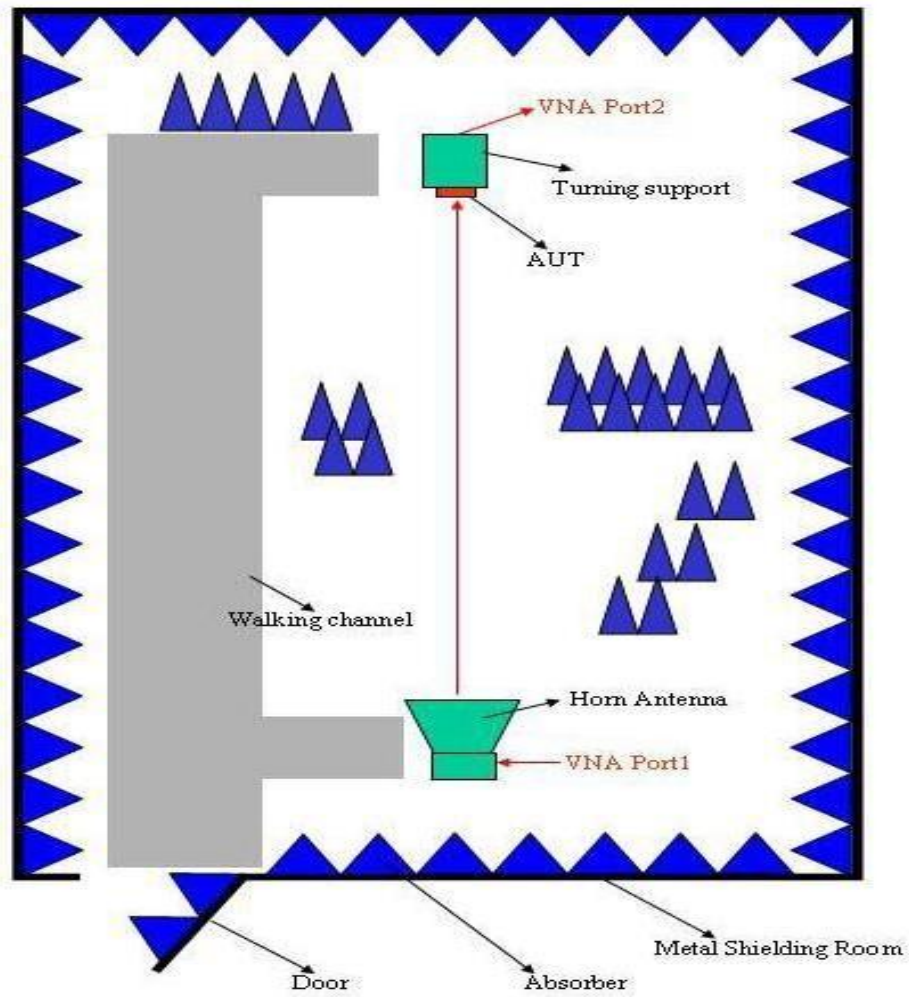
**Gain Table**

| Unit in dBi @2.44GHz | XY-plane |      | XZ-plane |      | YZ-plane |      | Efficiency |
|----------------------|----------|------|----------|------|----------|------|------------|
|                      | Peak     | Avg. | Peak     | Avg. | Peak     | Avg. |            |
| Module Board         | 1.3      | -0.5 | 1.1      | -3.8 | 1.1      | -3.0 | 4.2 %      |

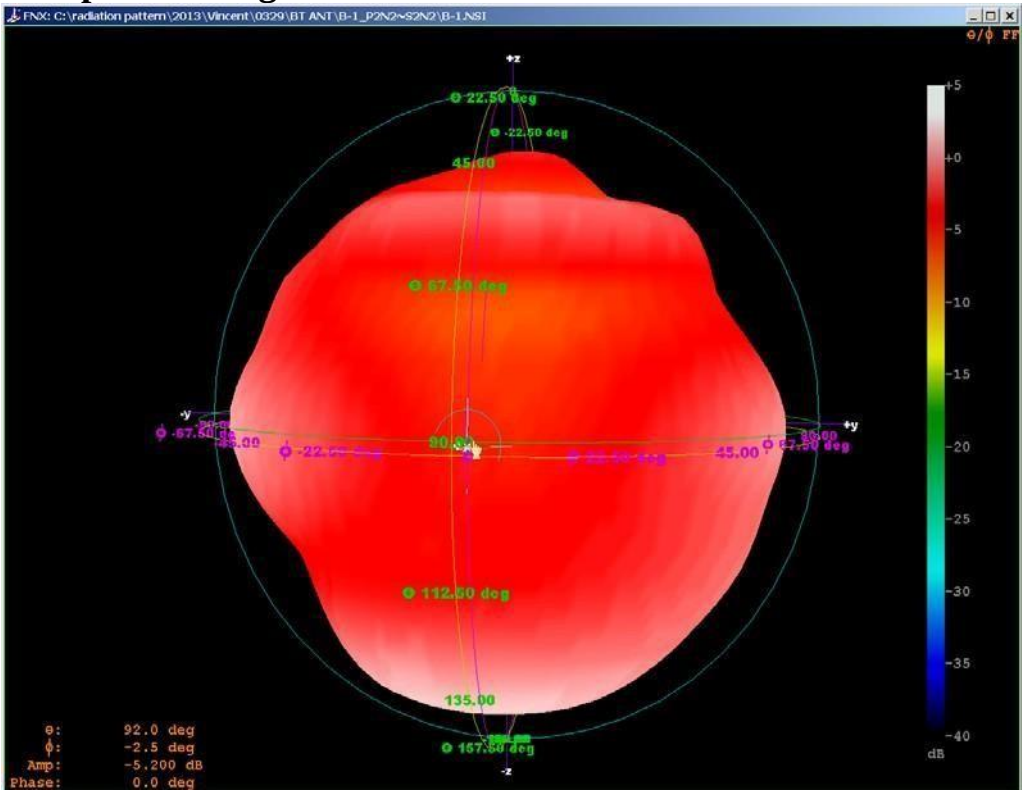
Return Loss



## The Environment of Antenna Radiation Pattern



3D radiation pattern diagram



| XY-plane                                                                                                          | XZ-plane                                                                                                          | YZ-plane                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Far-field Power Distribution(H+V) on X-Y Plane<br>Plot Peak Gain(H+V)= 1.3dBi; Plot Avg Gain(H+V)= -0.5dBi@2.4GHz | Far-field Power Distribution(H+V) on X-Z Plane<br>Plot Peak Gain(H+V)= 1.1dBi; Plot Avg Gain(H+V)= -3.8dBi@2.4GHz | Far-field Power Distribution(H+V) on Y-Z Plane<br>Plot Peak Gain(H+V)= 1.1dBi; Plot Avg Gain(H+V)= -3.0dBi@2.4GHz |

