

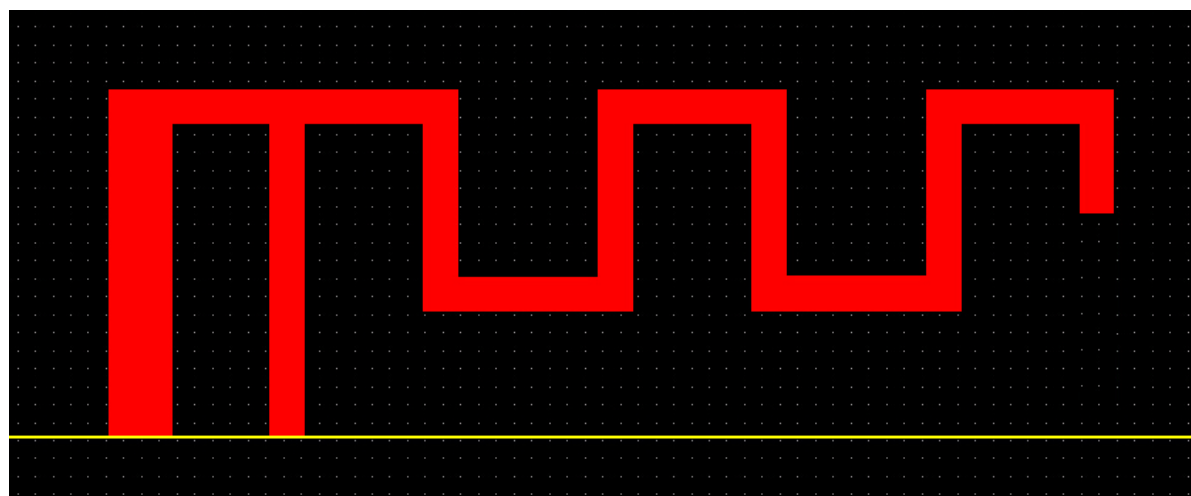
## Product specification

### 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)             | 1.2                                |  |
| Directivity (dBi)          | 1 (all direction antenna)          |  |
| Efficiency (dB)            | 6 0.2 %                            |  |
| Gain (dBi)                 | 1.7 (Avg Gain XY-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          | V ertical & H orizontal            |  |
| 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

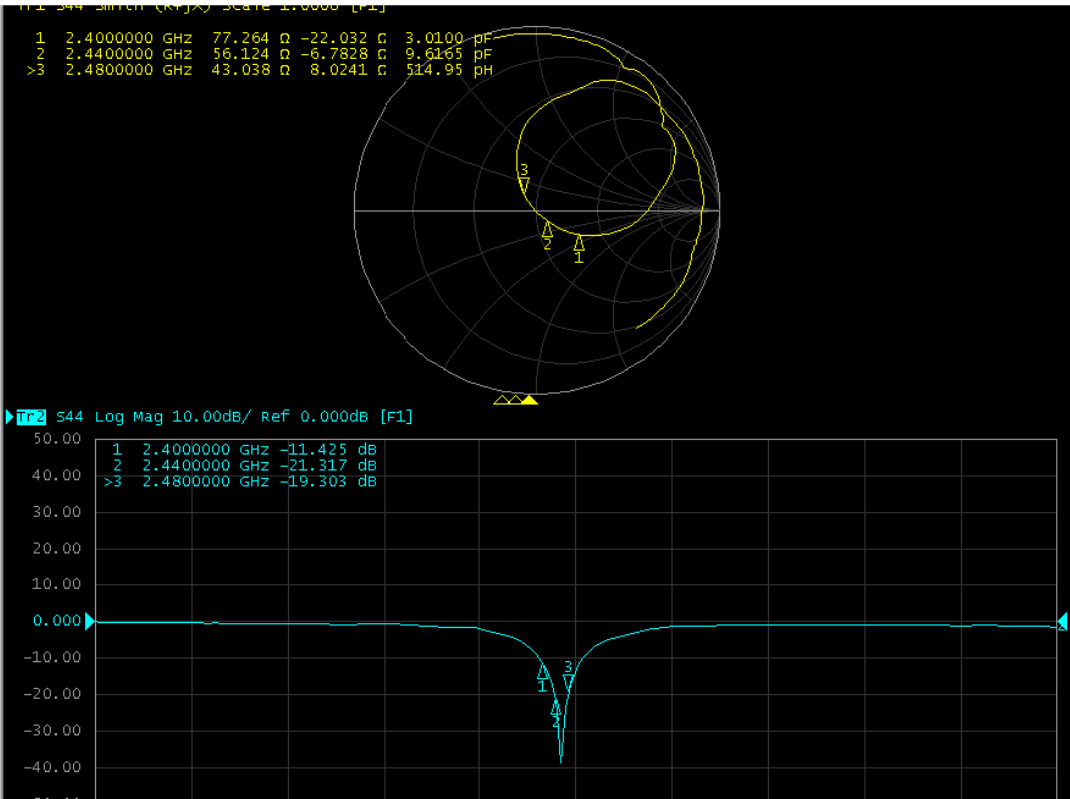


### Antenna Gain

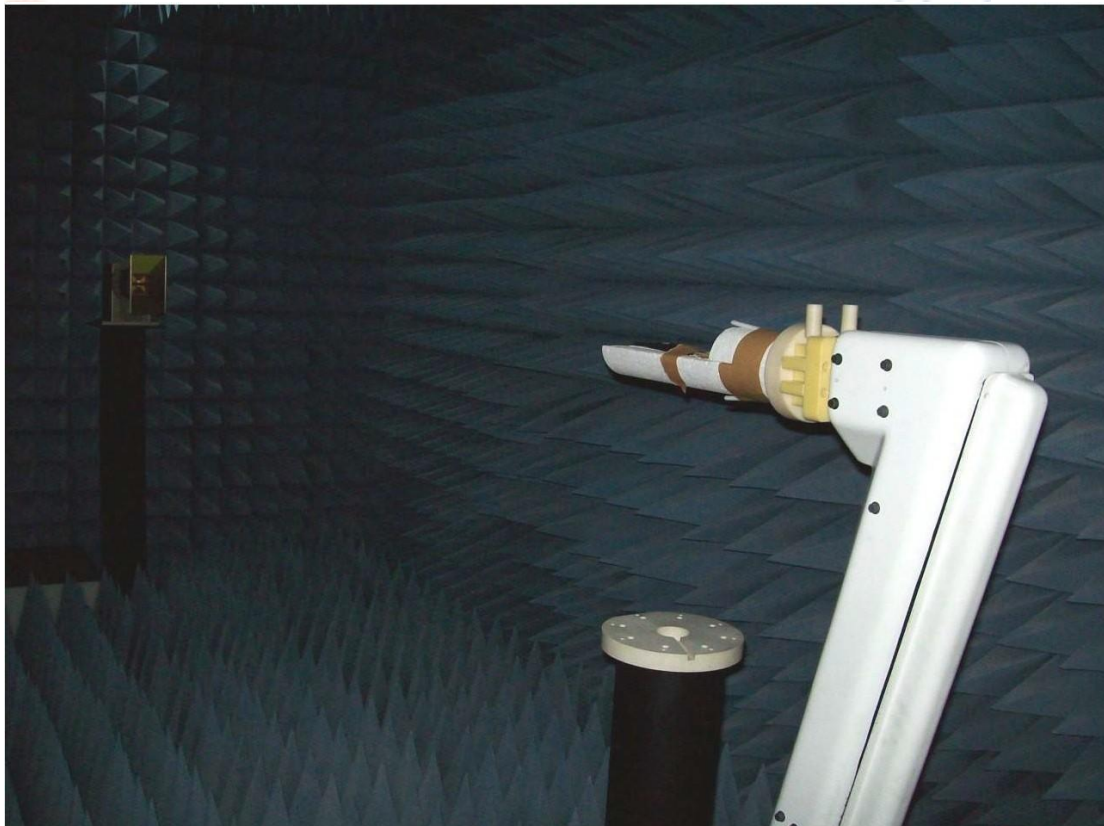
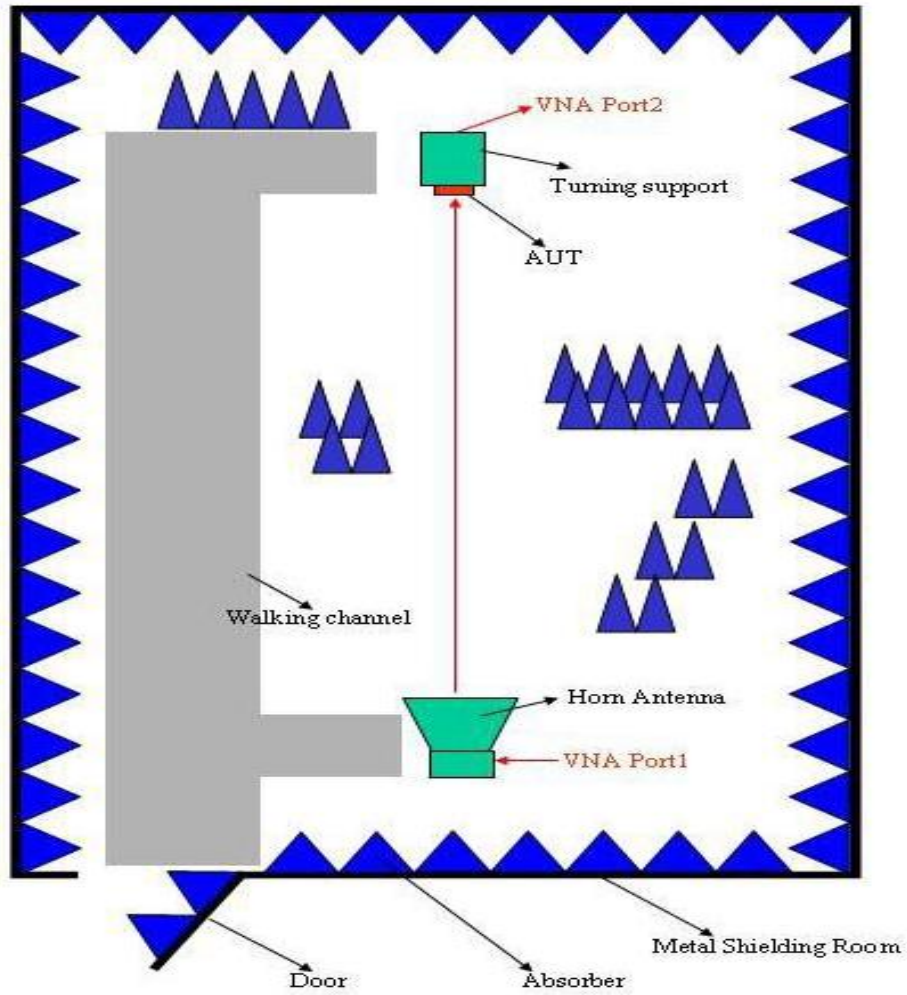
Gain Table

| Unit in dBi @2.44GHz | XY-plane |      | XZ-plane |      | YZ-plane |      | Efficiency |
|----------------------|----------|------|----------|------|----------|------|------------|
|                      | Peak     | Avg. | Peak     | Avg. | Peak     | Avg. |            |
| Module Board         | 1.2      | -0.5 | 1.7      | -3.8 | 1.1      | -3.0 | 6 0.2 %    |

Return Loss



## The Environment of Antenna Radiation Pattern

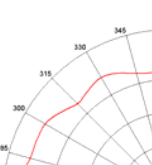


**Far-field Power Distribution(H+V) on X-Y Plane**  
Plot Peak Gain(H+V)= 1.35 dBi, Plot AvgGain(H+V)= -0.48dBi @2.4000 GHz

The figure is a polar plot titled "Far-field Power Distribution(H+V) on X-Y Plane". It shows the radiation pattern of the antenna in the H+V plane. The plot features concentric circles representing power levels and radial lines representing angles from 0 to 315 degrees. A red curve traces the main lobe of the radiation pattern, which is centered around 90 degrees and reaches a peak gain of 1.35 dBi. The average gain is -0.48 dBi. The plot is for a frequency of 2.4000 GHz.

**Far-field Power Distribution(H+V) on X-Z Plane**  
 Plot Peak Gain(H+V)> 1.08 dBi, Plot AvgGain(H+V)> -3.83dBi @2.48500 GHz

**Far-field Power Distribution(H+V) on Y-Z Plane**  
Plot Peak Gain(H+V)= 1.11 dBi, Plot AvgGain(H+V)= -2.99dBi @2.4600 GHz



The plot displays the radiation pattern of the antenna. The radial scale represents the gain in dBi, with major grid lines every 10 dBi from -40 to 0. The angular scale ranges from 0 to 315 degrees. The red curve shows a main lobe centered at 0 degrees, with a peak gain of approximately -10 dBi. The pattern is relatively symmetric about the 0-degree axis, with minor side lobes visible at approximately 45 and 315 degrees.

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