

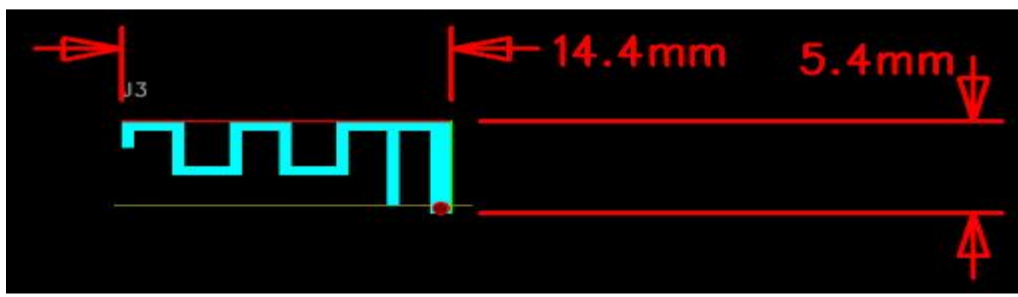
## Product specification

### Quick Reference Date

	Antenna module on the system board	
Antenna type	PCB	
Frequency	2.45GHz*1	
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)	1.7	
Directivity (dBi)	1 (all direction antenna)	
Efficiency (dB)	-2.3 (58.5%)	
Gain (dBi)	1.3 (Peak Gain XY-plane)	
Maximum Power (dBm)	1.3 (XY-plane)	
Minimum 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

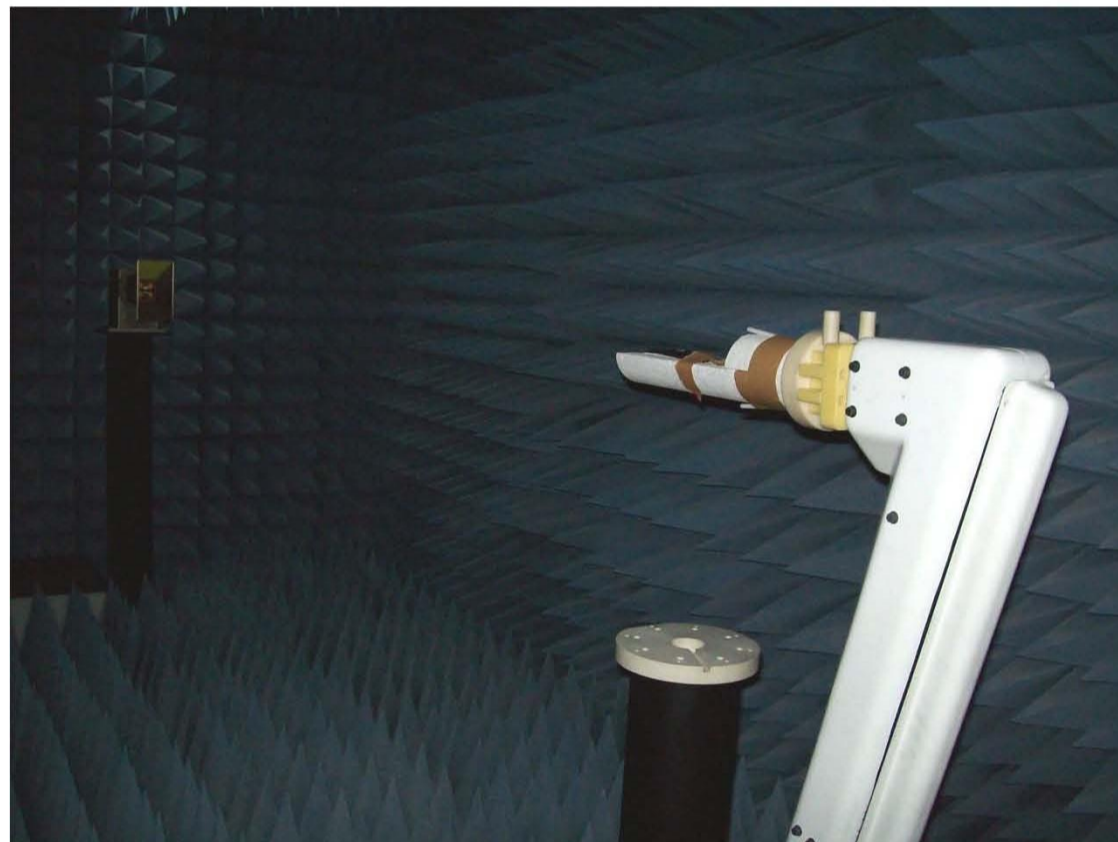
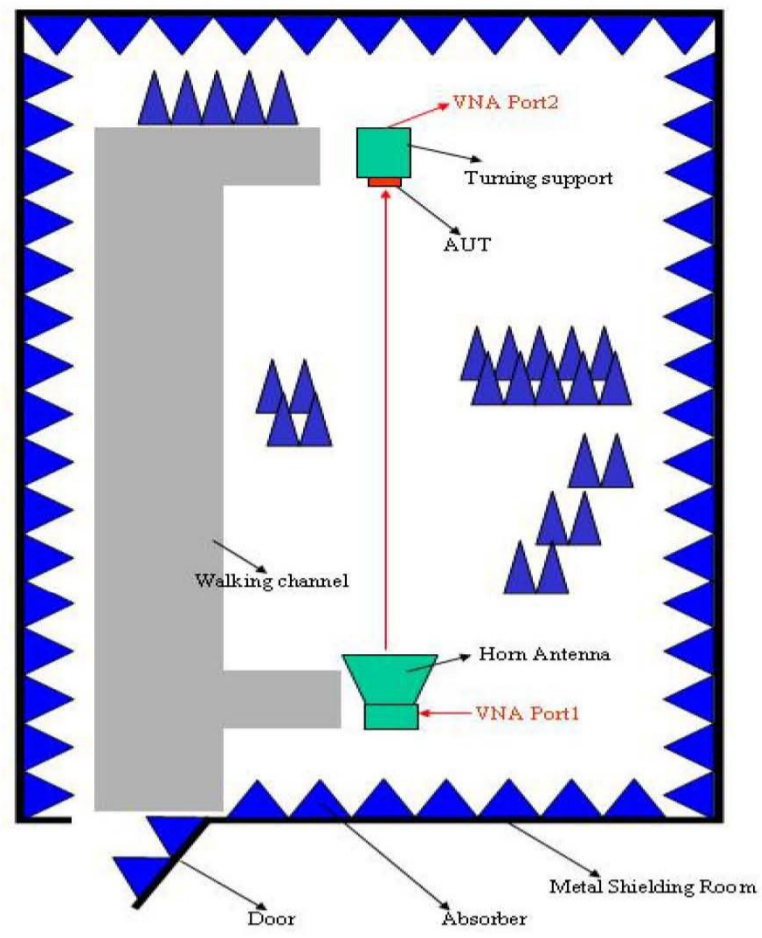


### Antenna Gain

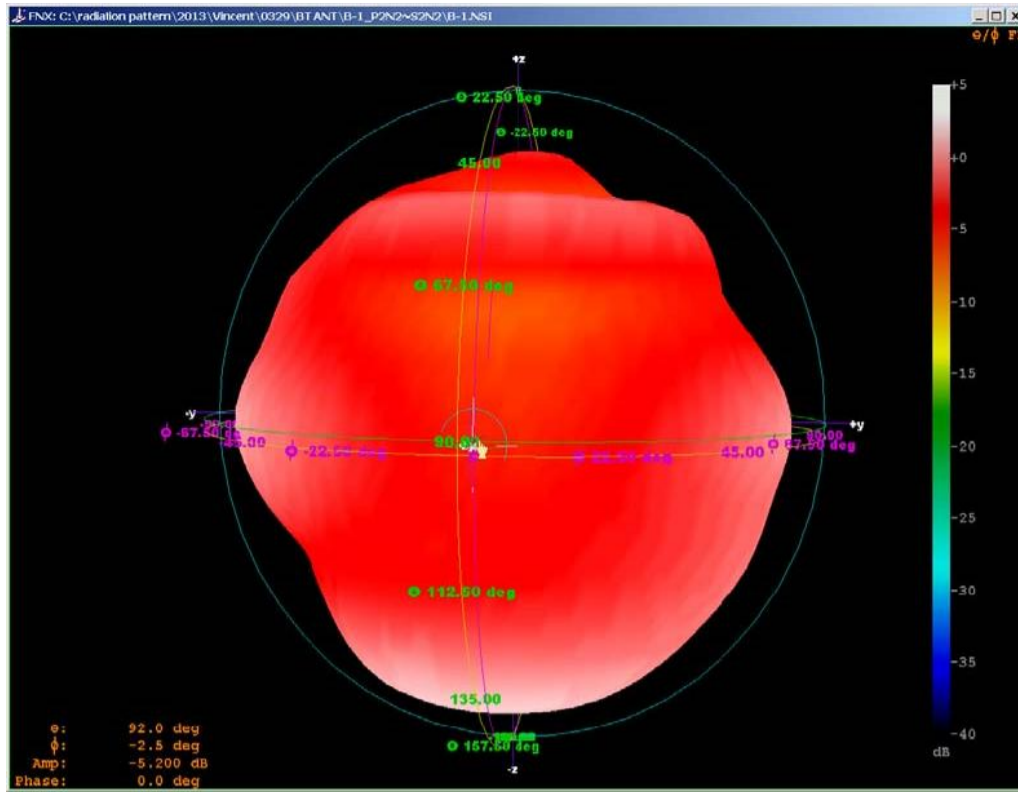
Unit in dBi @2.44GHz	XY-plane		XZ-plane		YZ-plane		Efficiency
	Peak	Avg.	Peak	Avg.	Peak	Avg.	
Module Board	1.3	-0.5	1.7	-3.8	1.1	-3.0	58.5%



**Return Loss**

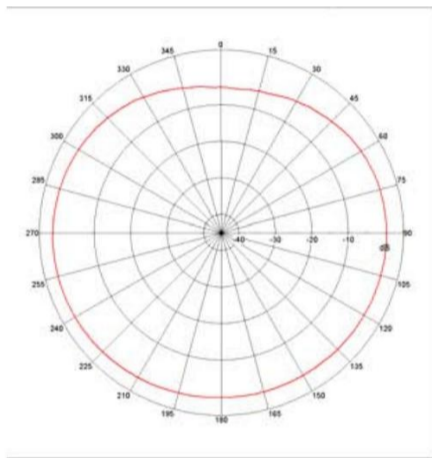


The Environment of Antenna Radiation Pattern



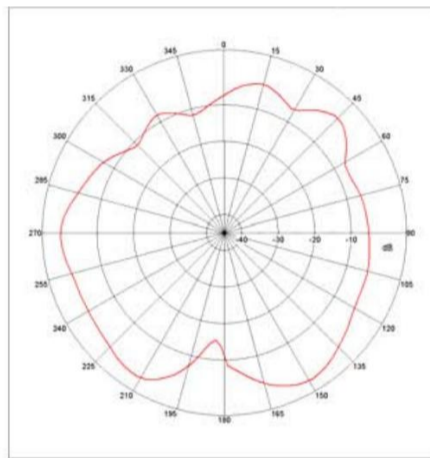
**3D radiation pattern diagram**

Far-field power Distribution(H+V)on Y-X Plane  
Plot peak Gain(H+V)=135dbi;plot AvgGain(H+V)=0dbi@2.44000GHz



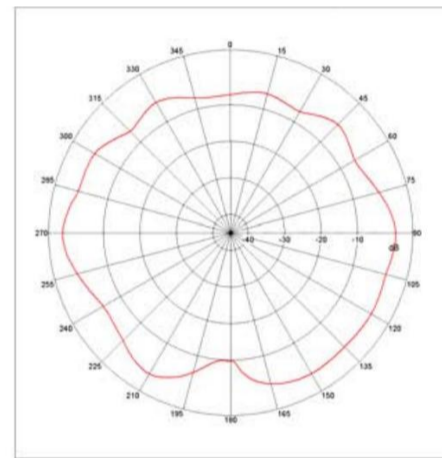
**XY-plane**

Far-field power Distribution(H+V)on X-Z Plane  
Plot peak Gain(H+V)=1.68dbi;plot AvgGain(H+V)=-3.83dbi@2.44000GHz



**XZ-plane**

Far-field power Distribution(H+V)on Y-Z Plane  
Plot peak Gain(H+V)=1.11dbi;plot AvgGain(H+V)=-2.99dbi@2.44000GHz



**YZ-plane**