

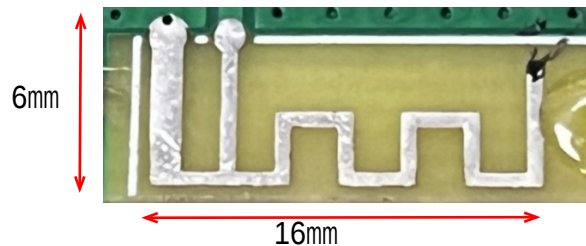
Product specification

Quick Reference Data

	Antenna module on the system board	
Frequency	2.4-2.5GHz	
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)	1.3	
Directivity (dBi)	1 (all direction antenna)	
Efficiency (dB)	-2.3 (58.5%)	
Gain (dBi)	1.68 (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
Manufacturer: JUMBOAUDIO INTERNATIONAL (HK) CO., LIMITED
Model: TPS15

Antenna Layout & module on the system board



Antenna Gain

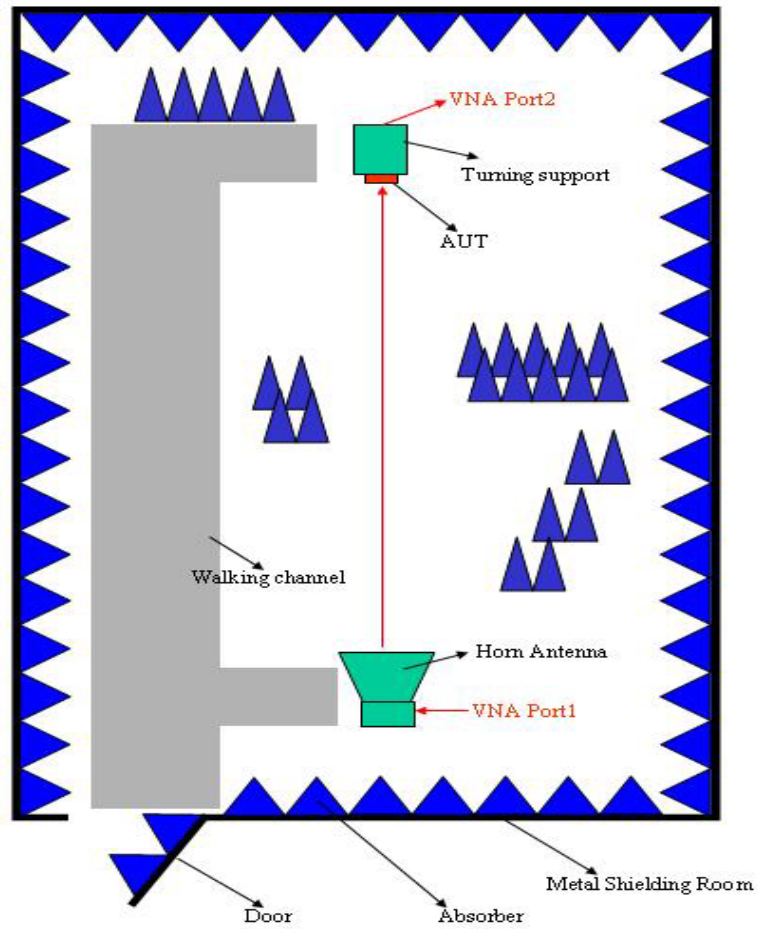
Gain Table

Unit in dBi @2.44GHz	XY-plane		XZ-plane		YZ-plane		Efficiency
	Peak	Avg.	Peak	Avg.	Peak	Avg.	
Module Board	1.35	-0.5	1.68	-3.8	1.11	-3.0	58.5%

Return Loss



The Environment of Antenna Radiation Pattern



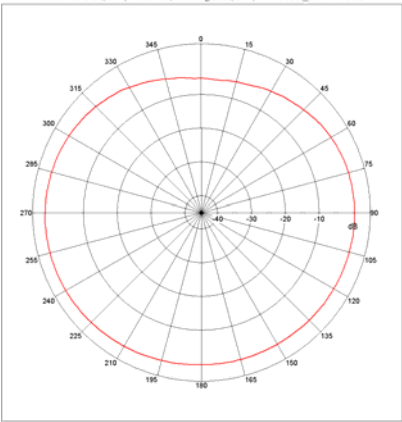
3D radiation pattern diagram



XY-plane

Far-field Power Distribution(H+V) on X-Y Plane

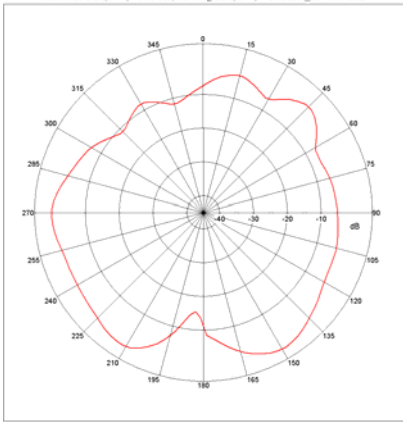
Plot Peak Gain(H+V)= 1.35 dBi; Plot AvgGain(H+V)= -0.48dBi @2.44000 GHz



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 @2.44000 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)= -2.99dBi @2.44000 GHz

