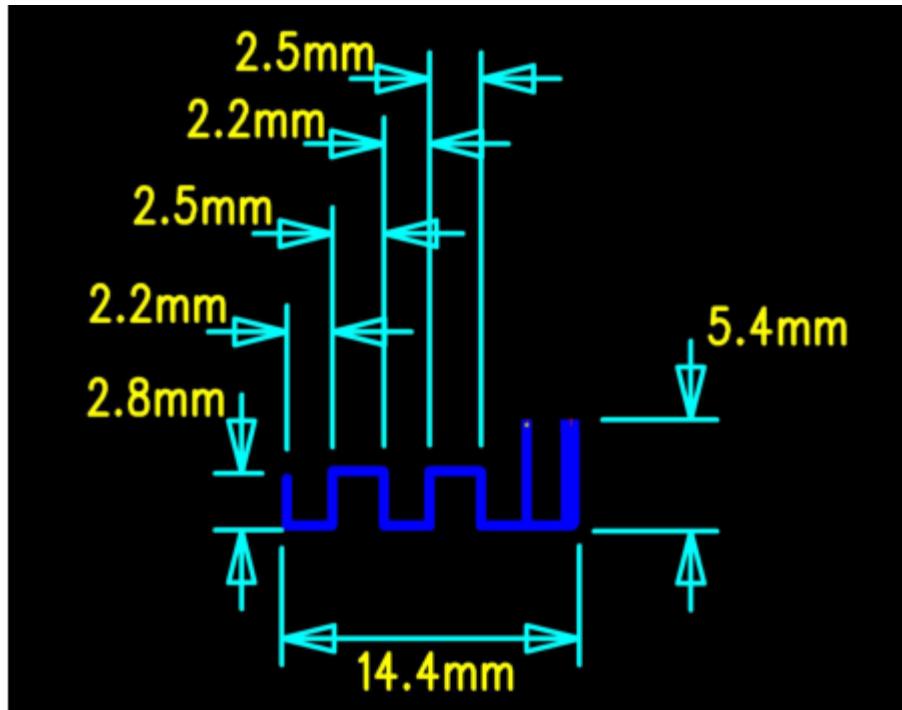


# Antenna Specification

## Summary

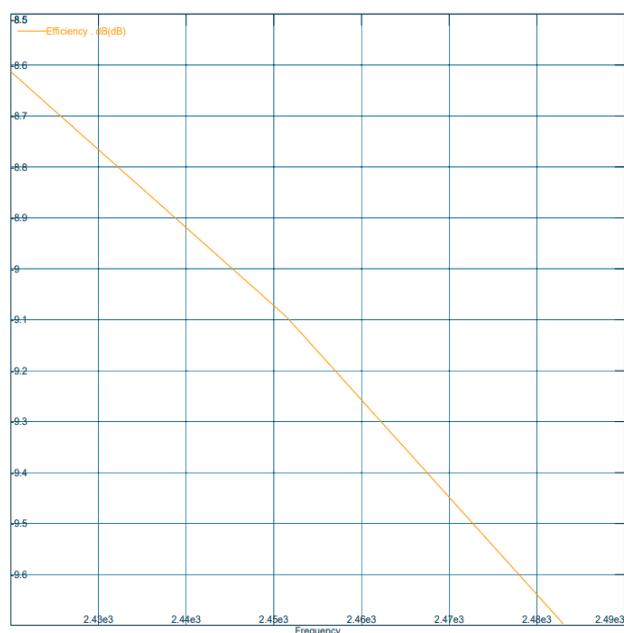
ITEM	ANT SPEC		
Model Name	2.4G ANT		
Center Frequency	2420MHz	2451.5MHz	2483MHz
	-4.36	-5.62	-6.69
MAX. Gain	-4.36		
Impedance	50 Ohm		
Azimuth Beam Pattern	Omni-directional		
Manufacture	DongGuan Hua Tuo Electronic Co. Ltd		
Address	Tiantouhuan Village West Road, Hengli Town, Dongguan City		

## Antenna Photo & Length (mm)



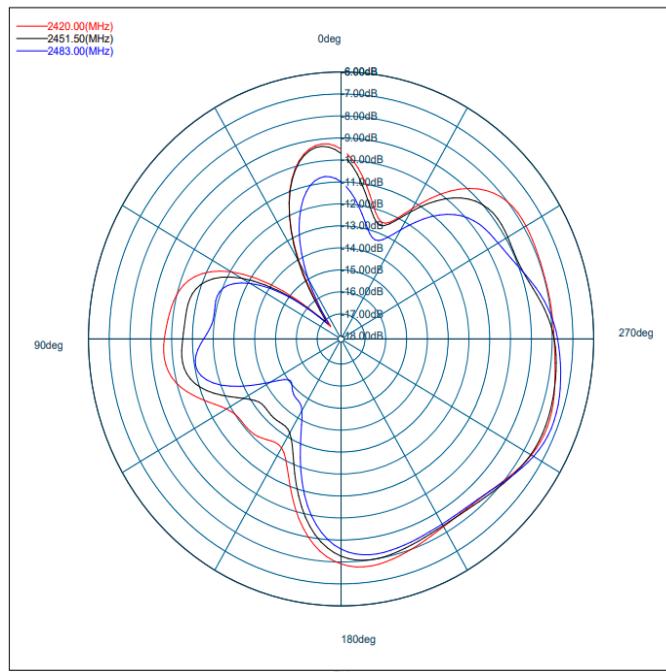
Since there is no ground plane beneath the antenna, PCB thickness will have little effect on the performance. The results presented in this design note are based on an antenna implemented on a PCB with 1 mm thickness.

### Antenna efficiency

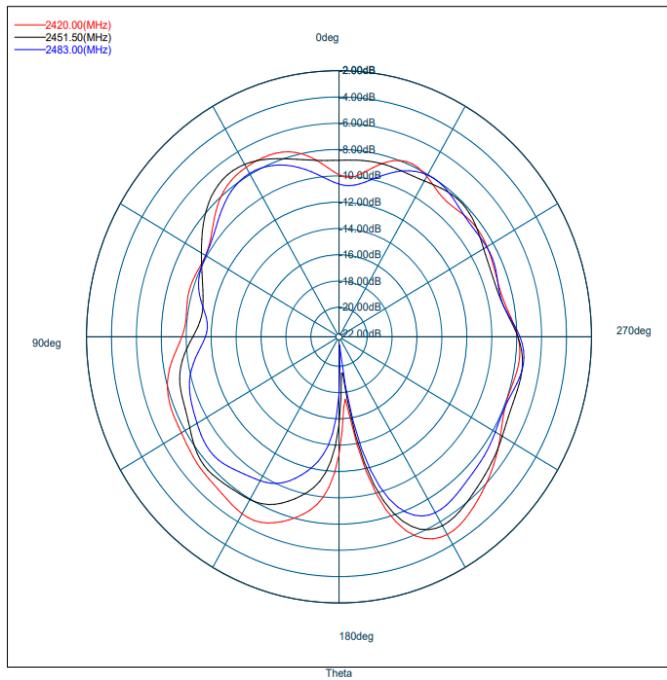


Frequency (MHz)	Efficiency	Efficiency . dB
2420	13.76%	-8.613161
2451.500000	12.32%	-9.095116
2483	10.72%	-9.696378

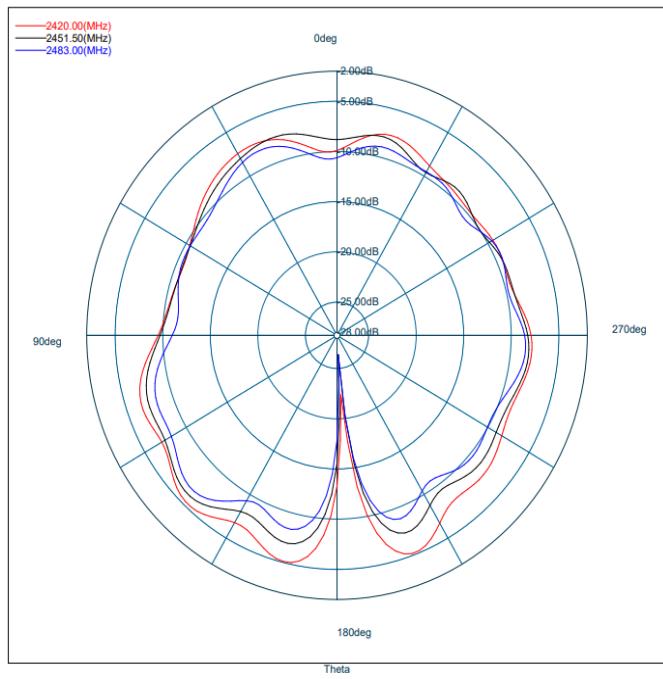
E1



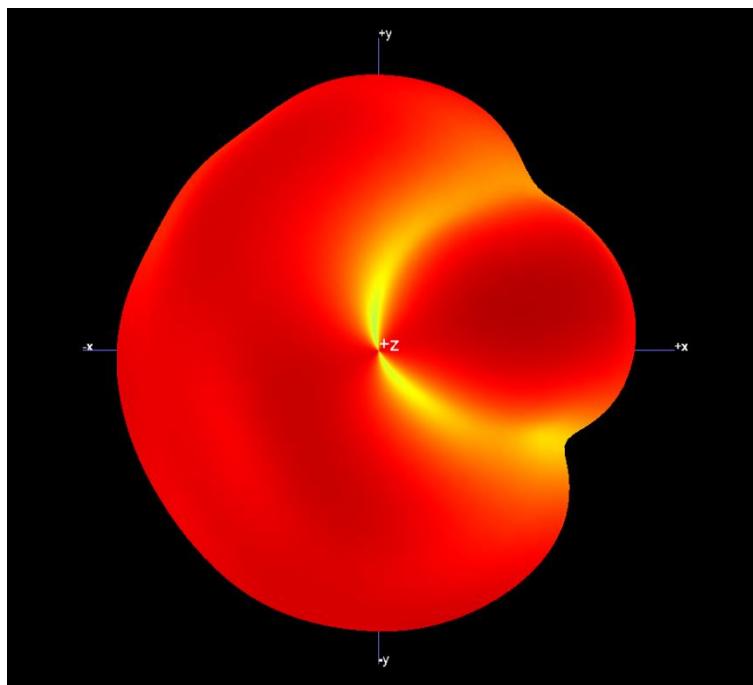
E2



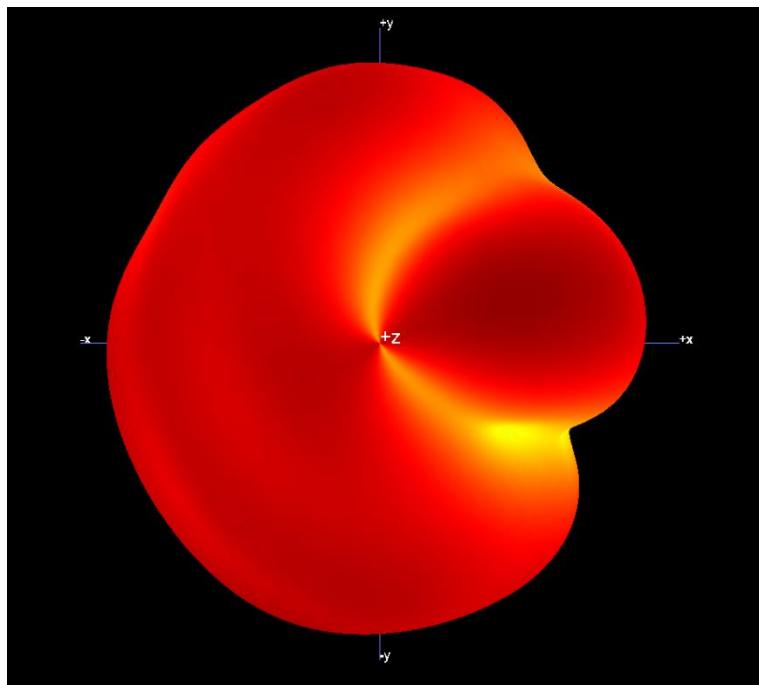
**Ant Gain**



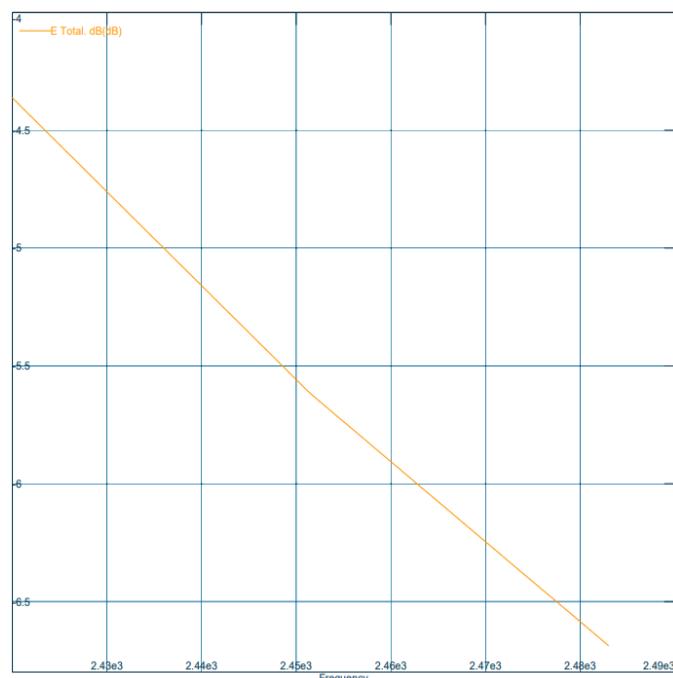
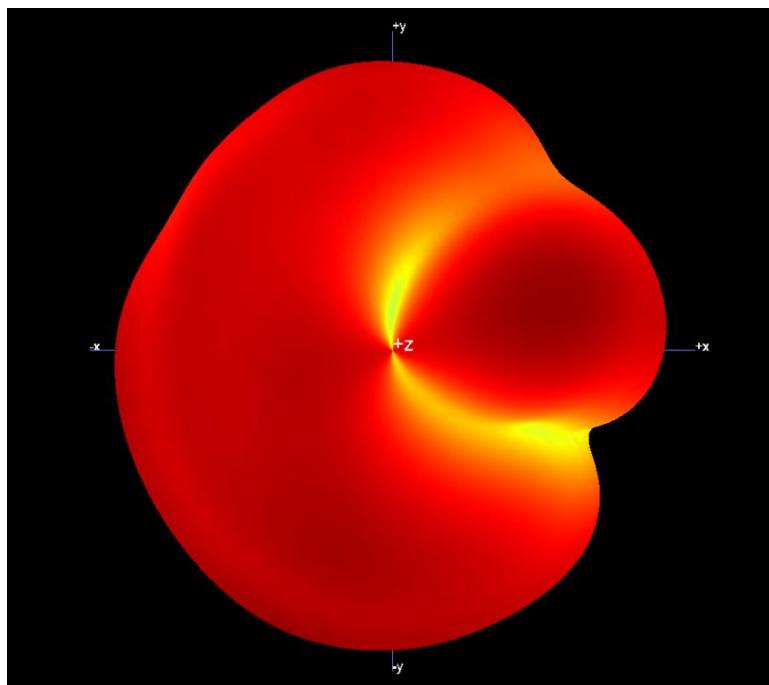
2420MHz



2451.5MHz



2483MHz



Frequency (MHz)	Gain . dB
2420	-4.36221
2451.500000	-5.61743
2483	-6.68688