## Bluetooth antenna specification sheet

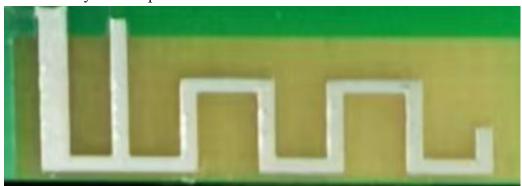
Date: 2022.11.18

Manufacturer:Shenzhen Lenodell Technology Co., Ltd. Address:5th Floor, Building B,Wentao Industrial Park,Yongxin Street,Yingrenshi Community,Shiyan Street,Bao'an District,Shenzhen,China Test Model: M9 Max

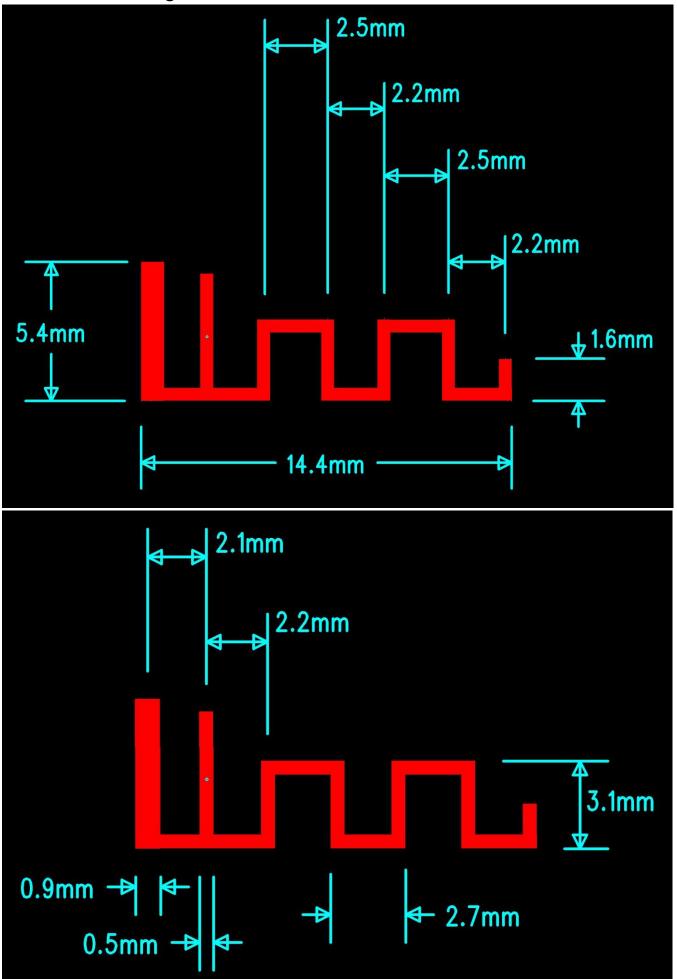
1. Introduction to Antennas

The Bluetooth antenna is directly made on the PCB board by the onboard method. The antenna is made of copper foil with tin spraying process. The thickness of the copper foil is 10Z, and the board is made of FR-4 material with a thickness of 1.6mm 2. Antenna shape

1. Physical picture



2.Dimension drawing: 14.5mm \* 5.4mm



## 3. Antenna parameters

The operating frequency of Bluetooth is between 2402 and 2480MHz, and resonance occurs in this frequency band.

The following table shows the main parameters of the antenna:

Built-in Bluetooth antenna		
Frequency (MHz)	$2402~~2500~\mathrm{MHz}$	
VSWR	≤ 1.92	
Impedance	50 Ohm Nominal	
Return Loss	-10 dB Max	
Radiation	Omni-directional	
Gain (Peak)	0.5 dBi	
Polarization	Linear, Vertical	
Admitted Power	2W	
Connector	Tin	

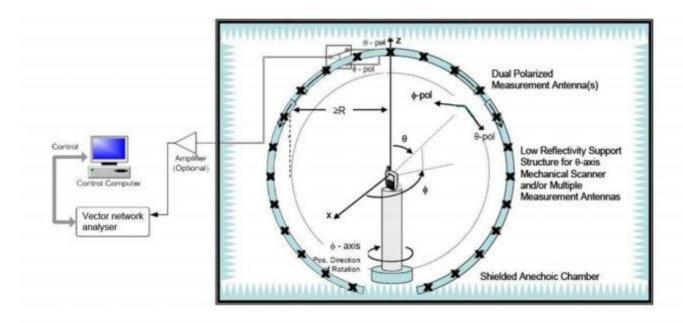
4. Antenna gain detection report

Spectrum Detector: PK	Test Date : June 8, 2013
Test By: Andy	Temperature : 28°C
Test Result: PASS	Humidity : 55 %
Modulation: GFSK	

Maximum gain value:

Frequency VNA : (MHz)	E Total. dB(dB)
2400MHz	-0.41
2410MHz	-0.18
2420MHz	0.34
2430MHz	0. 51
2440MHz	0. 38
2450MHz	-0.01
2460MHz	-0.06
2470MHz	-0.42
2480MHz	-0.74
2490MHz	-0.85
2500MHz	-1.13

## 5. Test Setup:



## 6.2D Radiation Pattern

