

Antenna specification

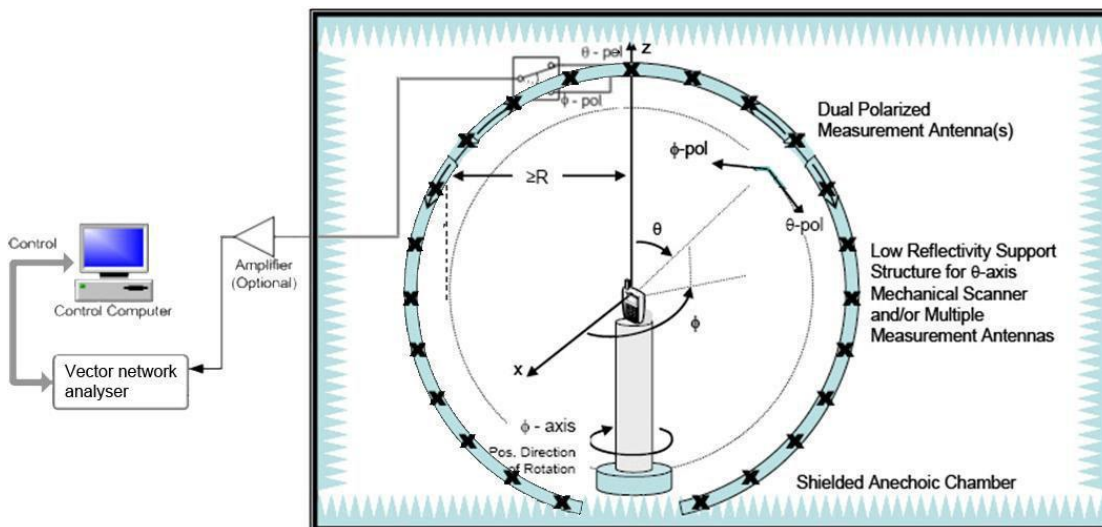
1、Antenna introduction

The Bluetooth module antenna is directly used on the PCB.

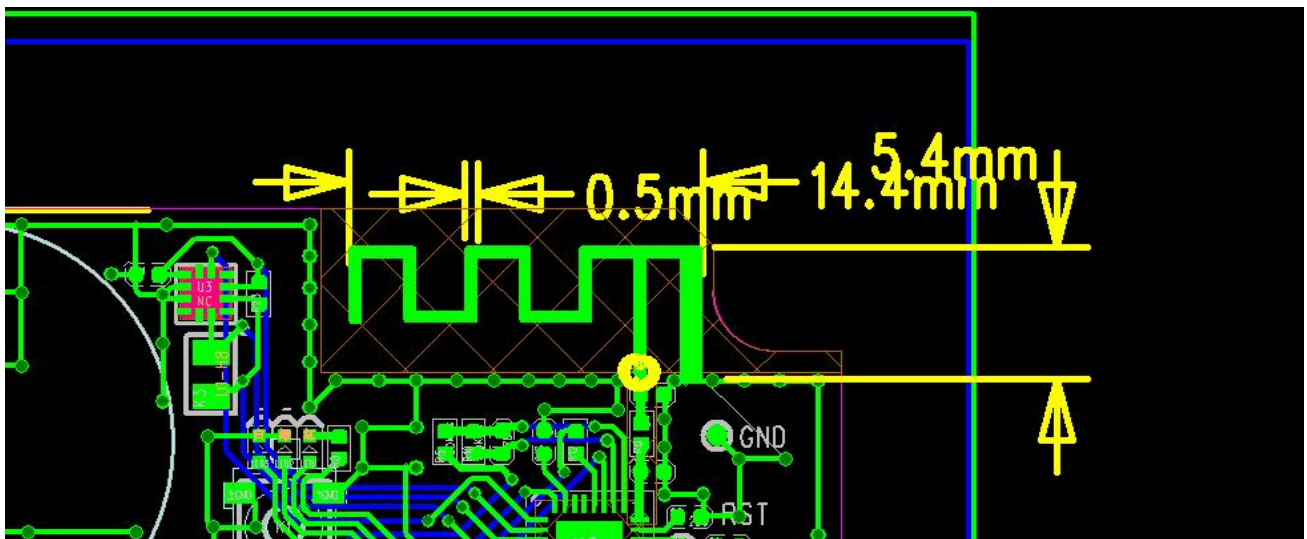
Manufacturer: Lenze Design Inc

Address : 7th Floor,Ching Po Building,Shenzhen Special Zone Press Group,Futian District,Shenzhen

Test Setup



2、Antenna shape



3、Antenna parameter

The Bluetooth antenna operates at 2402-2480 MHz and generates resonance in this band. The table below shows the main parameters of the antenna.

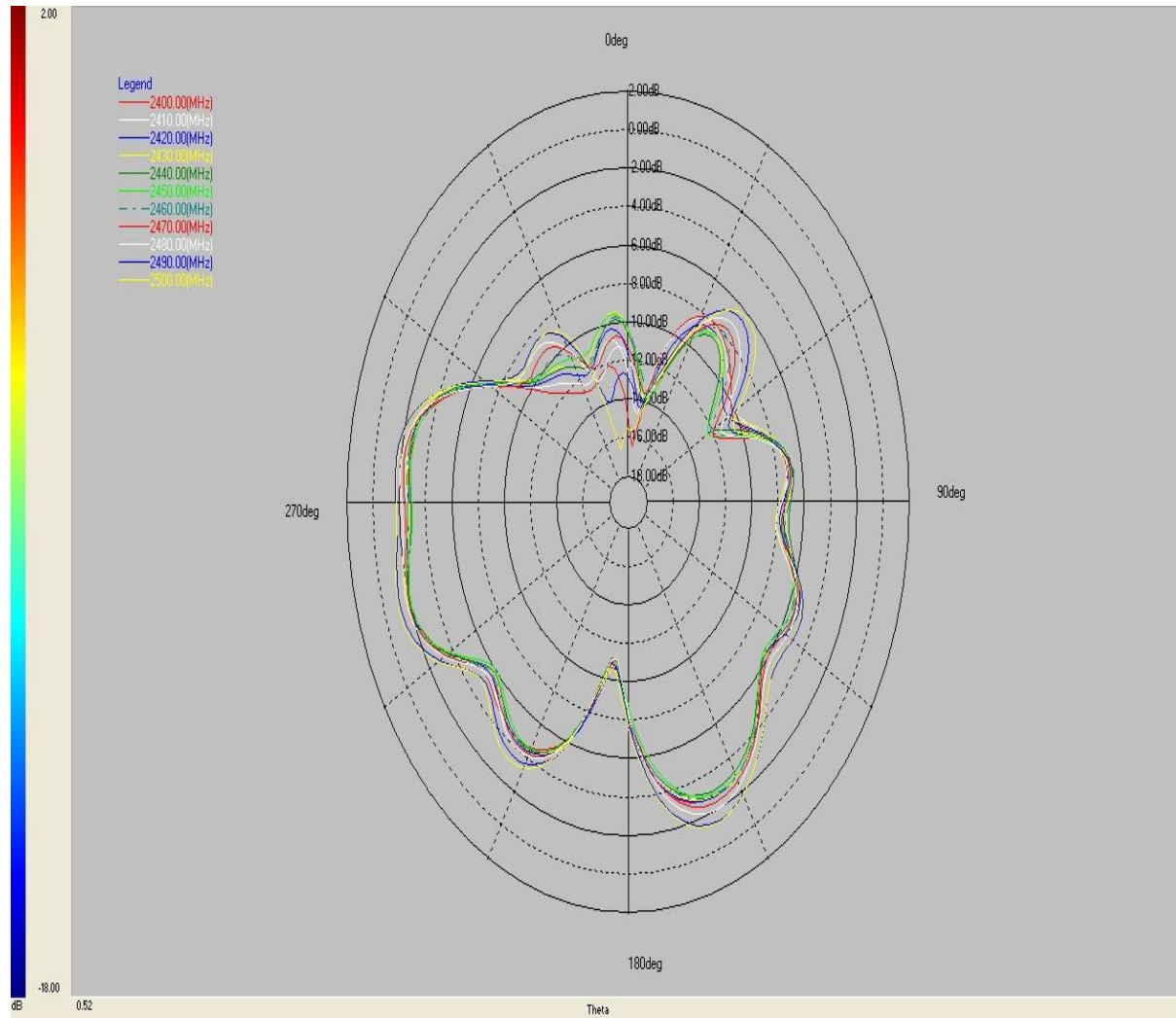
Frequency (MHz)	2402 ~ 2480 MHz
VSWR	≤ 1.95
Impedance	50 Ohm Nominal
Return Loss	-15 dB Max
Radiation	Omni-directional
Gain (Peak)	-3 dBi
Polarization	Linear, Vertical
Admitted Power	1MW
Connector	Tin
Model	F31

4、Antenna gain report

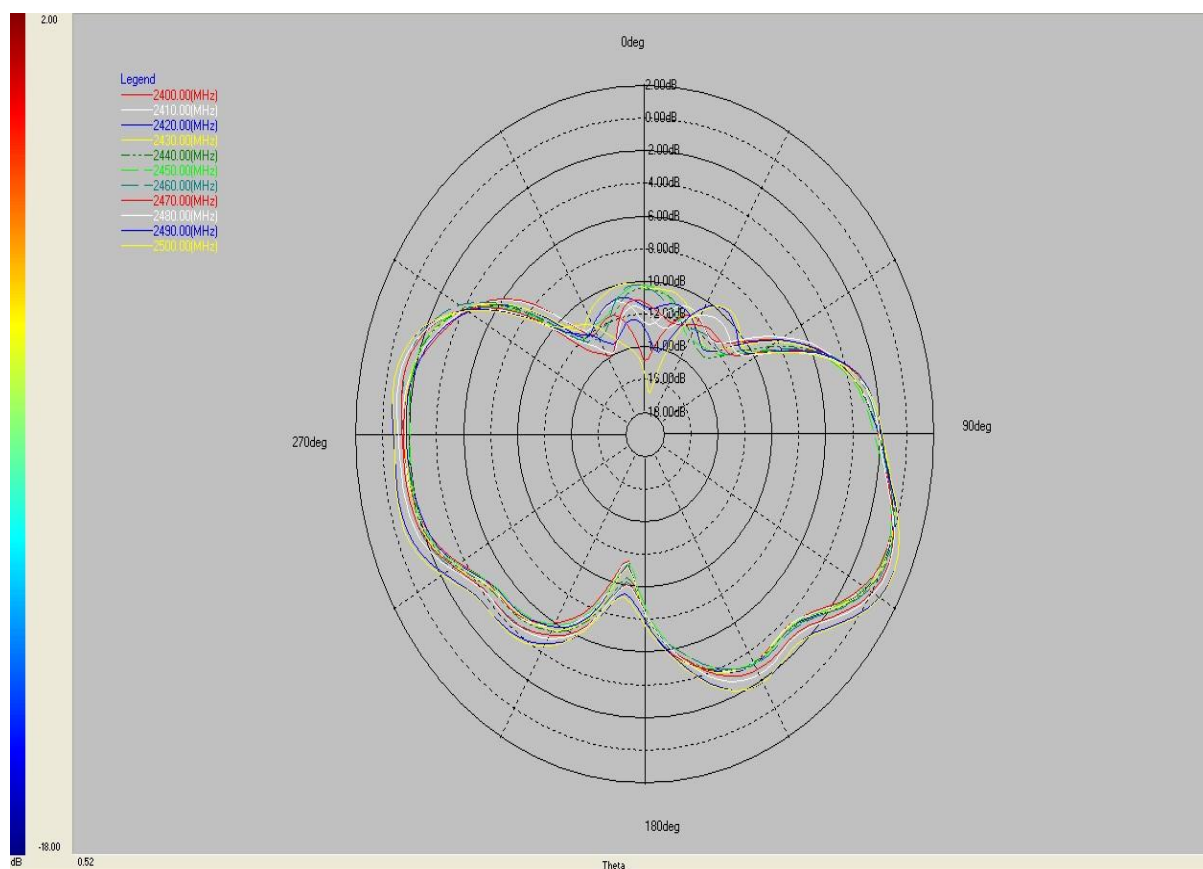
Spectrum Detector:	PK	Test Date :	Feb 18, 2022
Test By:	Mark	Temperature :	25°C
Test Result:	PASS	Humidity :	52 %
Modulation:	GFSK		

Frequency VNA (MHz)	E Total. dB(dB)	Gain(dBi)
2400MHz	0.0403503	-4.81
2410MHz	0.0886264	-4.55
2420MHz	0.267381	-3.12
2430MHz	0.193012	-3.16
2440MHz	0.26366	-3.05
2450MHz	0.0723139	-4.56
2460MHz	0.36895	-3.18
2470MHz	0.551525	-3.74
2480MHz	0.640702	-3.06
2490MHz	1.05232	-3.01
2500MHz	1.08443	-3.00

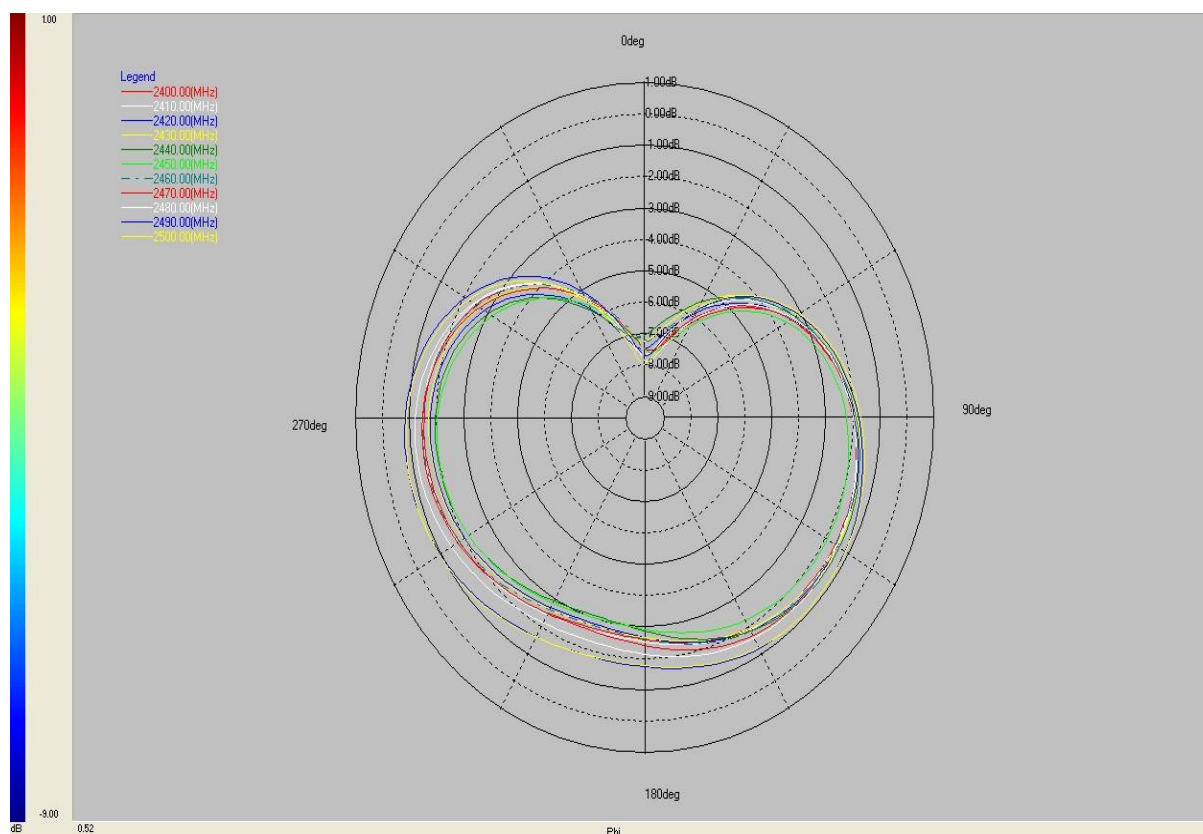
Direction map:



PHI 0°



$\text{PHI } 90^\circ$



THETA 90°